Lymphocutaneous syndrome produced by Sporothrix spp. with histological appearance of leishmaniasis.

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Introduction & Objectives:

Lymphocutaneous syndrome can be caused by multiple infectious etiologies, such as staphylococcus and streptococcal infections, nocardiosis, mycobacterial infections, tuberculosis, sporotrichosis, cryptococcus, histoplasmosis or leishmaniasis. Non-infectious etiologies include lymphoma, Langerhans cell histiocytosis and metastatic disease.

Materials & Methods:

A case report is shown. Prior informed consent was obtained from the patient.

Results:

A 70-year-old male from a rural city presented with a localized plaque in the upper arm and dissemination of the lesions throughout a lymphangitic pathway. Four months had passed since the patient noticed the first lesion. Multiple ulcerated nodules started at the proximal wrist, with other lesions at the internal aspect of the arm that continued towards the axilla. History of trauma involving a rose thorn was identified. Initial diagnoses included neoplastic and infectious conditions; therefore, a biopsy and tissue samples were taken for molecular testing and microbiological cultures. No abnormalities were found in blood analysis. Due to multiple probable diagnoses, empiric treatment was not started. A histological report was obtained, consistent with leishmaniasis; nevertheless, PCR testing was negative for both Sporothrix spp. and Leishmania spp. The microscopic report described a severe inflammatory infiltrate caused by plasma cells and neutrophils, the latter forming micro abscesses; few foamy histiocytes were present, and granulomas or multinucleated giant cells were reported. Inside the histiocytes, pinkish rounded structures that resembled amastigotes were depicted. The epidermis appeared hyperplastic and with no ulceration. Tissue stains for fungi and mycobacteria were negative. Sporotrichosis was highly suspected; a trial with itraconazole was started while waiting the culture results. After two months of itraconazole, the patient was evaluated: clinical improvement of the lesions was noted. Final cultures were consistent with Sporothrix spp.; the presence of a sympodial conidiophores was described. Two additional months were given. Lesions resolved, leaving a residual elevated scar.

Conclusion:

Diagnostic tools such as molecular test and histological samples are helpful for the diagnosis of infectious and neoplastic conditions; nonetheless, the sensitivity and specificity of each method varies, and false-negative results might occur. Microbiologic cultures remain fundamental in our clinical practice; however, considerable time may pass until results become available. Clinical suspicion is vital for orienting the diagnostic tools. For improving the likelihood of a correct diagnosis and treatment prescription in these infectious scenarios, multiple diagnostic techniques should be considered and carefully interpretated.

Successful Treatment of Methotrexate As Steroid-Sparing Agent for Chronic Erythema Nodosum Leprosum

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Introduction & Objectives:

Chronic erythema nodosum leprosum (ENL) reaction occur in most patients with multibacillary type (MB) leprosy and requires long-term therapy with high-dose systemic corticosteroids that can increase morbidity and mortality. The use of cytostatic drug methotrexate as a steroid-sparing treatment can reduce morbidity and side effects of long-term use of corticosteroids in cases of chronic ENL.

Materials & Methods:

A 30-year-old female visited the outpatient clinic with painful erythematous nodules on her face, body, both arms, and legs accompanied by fever six months prior. The nodes increase in number with varying sizes. The patient's face was swollen, and stretch marks appeared around her abdomen. Physical examination found vital signs within normal limits. Dermatological examination revealed multiple erythematous nodules on the face, body, arms and legs. Neurological examination revealed that the peripheral nerve has no enlargement with sensory and motor functions within normal limits. The patient had a history of treatment with prolonged methylprednisolone tablets and a combination of rifampicin, ofloxacin, and minocycline (ROM) for 12 weeks. The slit skin smear test showed a bacterial index (BI) of 2+ and a morphological index (MI) of 0.3%. Interleukin-6 (IL-6) and tumor necrosis factor-a (TNF-a) cytokines panel test increased. Histopathological examinations showed edema and granuloma of foamy histiocyte cells mixed with lymphocytes and neutrophils that extended to the subcutaneous fat and supported the image of MB-type leprosy with ENL reaction. The patient received combination of methotrexate tablets at 7.5 mg/week for 24 weeks, methylprednisolone tablets at 32 mg/day that were slowly tapered off for 20 weeks, and folic acid tablets 1 mg/day. Significant clinical improvement of the ENL reaction occurred after therapy and evaluation of laboratory results within normal limits.

Results:

Chronic ENL is defined as ENL reaction occurring for more than 24 weeks during which a patient has required ENL treatment either continuously or where any treatment-free period is 27 days or less. Systemic corticosteroid is the treatment options for chronic ENL reaction that has potent anti-inflammatory activity by inhibiting the production of pro-inflammatory cytokines, however the treatment is usually long-term, thus may lead to a variety of complications, such as moon face and stretch marks. Methotrexate is a folate antagonist that can suppress the division of mononuclear cells, reducing the pro-inflammatory cytokines level such as TNF-a, IL-1, IL-6, and immune-regulation pathways associated with pathogenesis in ENL reaction. This treatment regimen has fewer adverse effects, widely available, and affordable in comparison to other agents used to manage ENL such as cyclosporin, pentoxifylline, azathioprine, and mycophenolate mofetil. The administration of low-dose methotrexate may reduce the dose and discontinue the administration of corticosteroid in chronic ENL cases.

Conclusion:

Methotrexate as a steroid-sparing agent may be an effective alternative treatment regimen in the case of chronic ENL reaction.

Staphylococcal scalded skin syndrome in a 65-year-old female with chronic topical steroid use

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Introduction & Objectives:

Staphylococcal Scalded Skin Syndrome (SSSS) is a rare disease usually reported among the pediatric age group, and is uncommon among adults. SSSS in adults 65 – 84 years, has an incidence rate of 0.19 per 100,000 population in 2014 (Arnold, JD, Hoek, SN, Kirkorian, AY, 2018). In the Philippines, there are only 4 published reports of SSSS, all of which are pediatric cases. To the best of our knowledge, this is the first reported case of SSSS in an immunocompromised adult in the country.

Case:

Herein, we report a case of SSSS in a 65 year old female, known psoriatic with chronic superpotent topical steroid use of total cumulative dose at 6300g for 6 months. Lesions started as flaccid vesicles and bullae that ruptured and evolved into erythematous patches topped with erosions and eventually to erythematous plaques topped with hemorrhagic crusts and tissue paper-like wrinkling of the skin on face, neck, trunk and extremities (Fig. 1a and 1b). The diagnosis of SSSS was established based on clinical examination. Histopathology was consistent with SSSS (Fig. 2). Patient was given electrolyte replacement, local wound care and intravenous vancomycin. Patient improved (Fig. 1c and 1d) and was discharged after 14 days.

Discussion:

SSSS rarely presents among immunocompromised adults and patients with renal failure. Its pathogenesis lies on the presence of Staphylococcus aureus and its toxins, exfoliatins A and B which cause epidermolysis. These toxins are produced locally from a primary site of infection then spreads hematogenously, leading to lysis of intercellular attachments between granular cells of the epidermis causing subcorneal split. It usually presents with fever, generalized erythema and superficial fragile blisters that progress into extensive exfoliation. It has a good prognosis if treated immediately with anti-staphylococcal antibiotics. Topical corticosteroids are anti-inflammatory agents typically used for inflammatory cutaneous lesions for its anti-proliferative, immunomodulatory and vasoconstrictive effects. However, prolonged use for more than 3 weeks and doses more than 45g for high potent topical steroids may result to skin atrophy, acneiform eruptions, hyperpigmentation, hypertrichosis, allergic reactions and skin infections. Systemic side effects like hypothalamic-pituitary axis suppression and immunosuppression may also develop. Immune suppression leads to growth of Staphylococcus aureus and impaired amounts toxin-neutralizing antibodies. In this particular case, a 65-year-old female resorted to using a cheap, locally available, over-the-counter clobetasol + ketoconazole cream, a high potent topical steroid containing medicament, for 6 months to treat her psoriasis. Due to advancing age, the thin outer layer of the skin resulted to increased penetration of topical steroids thereby promoting the effects of steroids more. This has led to immunosuppression and predisposition of the patient to developing SSSS.

Conclusion:

SSSS, although rare, should be considered especially in an elderly with history of chronic steroid use. A high index of suspicion and a keen clinical eye is needed as it can be fatal in adults with immunosuppression. Patients should be educated well on the proper use of over-the-counter steroid-containing creams and its adverse

effects.

A study of clinical, pathological, microbiological aspects and quality of life in patients of chromoblastomycosis.

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Introduction & Objectives: Chromoblastomycosis (CBM) was recognized and officially classified as neglected tropical disease (NTD) by World Health Organisation in 2017. CBM is a chronic, granulomatous, subcutaneous mycosis/Implantation mycoses caused by traumatic inoculation of dematiaceous fungi into dermis or subcutaneous tissue through penetrating injury from vegetative material. Chromoblastomycosis lesions are polymorphous. Carrion classified CBM into five clinical types: verrucous, nodular, tumoral, plaque-like and cicatricial/atrophic.

The objective of our study was to analyse the clinical, histopathological and microbiological characteristics of chromoblastomycosis and to evaluate the Dermatology Quality of life index in these patients.

Materials & Methods: All CBM patients presenting to Dermatology department of tertiary care hospital in North East India from 1st August 23 to 31st January 24 were included in the study. A detailed history was taken and clinical examination was done. Skin biopsy and fungal culture were sent. Patients were given Dermatology Life Quality Index questionnaire (Cardiff University) for assessing the quality of life.

Results: Ten patients of CBM were included in the study. Male to female ratio was 8:2 with age ranging from 20 to 60 years (60%). All the patients belonged to rural background. Duration of the disease ranged from one month to 25 years. History of trauma was obtained in all the patients (100%). Plaque type CBM was most commonly seen (70%) followed by nodular type (20%) and verrucous type (10%). Upper limb and lower limb were involved in 5 patients each (50%). However, 60% patients had acral involvement (hand, ankle). Histopathological examination showed suppurative granulomas and copper penny bodies. Fungal culture showed growth of Fonsecaea pedrosoi in 4 cases. Mean Dermatology Life Quality Index score was calculated as 6+2.

Conclusion: High incidence of chromoblastomycosis was seen in male outdoor workers in rural areas of North East India. Chomoblastomycosis has small to moderate effect on patient's quality of life.

Intralesional quadrivalent versus bivalent HPV vaccine in the treatment of multiple recalcitrant warts

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Introduction & Objectives: **

Wart treatment poses a persistent challenge despite existing numerous therapeutic modalities. Human papilloma virus (HPV) vaccines have shown promising efficacy in the treatment of warts

Objective: To assess the efficacy of intralesional quadrivalent versus bivalent HPV vaccines in the treatment of multiple recalcitrant warts.

Materials & Methods:

Fifty patients with multiple recalcitrant warts were recruited and randomly assigned to three groups. The first group (20 patients) received intralesional injection of 0.1 ml of quadrivalent vaccine, the second group (20 patients) was intralesionally injected with 0.1 ml of bivalent vaccine, and the third group (10 patients) received 0.1 ml of intralesional saline. Injections were done at 2-week intervals until complete clearance or for a maximum of 5 sessions.

Results:

Quadrivalent vaccine was associated with a statistically higher response rate (90%) compared to both bivalent vaccine (30%) and saline (0%) groups (P = 0.001). All reported side effects in the treatment groups were mild, transient and tolerable. No recurrence of warts was observed during the 6-month follow-up period.

Conclusion:

Bivalent and quadrivalent HPV vaccines seem to be promising, well-tolerated therapeutic options for the treatment of multiple recalcitrant warts, with statistically significant superiority of the quadrivalent vaccine.

Disseminated Molluscoid Lesions: An Unusual Manifestation of CMV Infection

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Introduction & Objectives:

The majority of HIV-infected patients often display severe and polymorphic cutaneous involvement, influenced by the patient's immunologic stage. Molluscoid lesions are common in monkeypox, varicella, and disseminated herpes simplex infections. In contrast, typical cytomegalovirus (CMV) manifestations include ulcers, mainly in the perianal or oral regions.

The aim of this cae presentation is to share an unusual CMV presentation and to propose an algorithm for the approach to molluscoid lesions in HIV patients.

Materials & Methods:

A 35-year-old female patient, recently starting HAART therapy, presented with progressively emerging generalized pruritic lesions over one month, accompanied by severe headaches. On examination, she exhibited disseminated erythematous papules, most umbilicated, some with hemorrhagic crusts, and a few clear fluid vesicles. Cervical, axillary, and inquinal lymphadenopathies were detected, with no mucous membrane involvement.

Results:

Lab results were normal. Hepatic ultrasound and Chest X-rays were unremarkable, but cranial CT scan revealed sinusitis in sphenoidal, left maxillary, and ethmoidal sinuses. Cerebrospinal fluid studies, Tzanck test, and monkeypox PCR were negative. Skin biopsies and immunochemistry confirmed CMV disease, with positive CMV IgG and viral load of 7144 copies/ml. Due to initial suspicion of varicella, empirical treatment was initiated with intravenous acyclovir (500 mg every 8 hours) and diphenhydramine (50 mg every 8 hours), alongside HAART therapy, achieving complete resolution of the skin lesions within two months.

Conclusion:

The observed clinical improvement in this patient can be attributed to the enhanced immunological status and the therapeutic effect of acyclovir in treating herpes infections. Cutaneous manifestations in HIV patients can result from inflammation, neoplasms, infections, or therapy-related effects, reflecting the dynamic HIV-skin relationship. Physicians must consider CMV in the differential diagnosis for disseminated molluscoid lesions.

Comparing emollient use with topical luliconazole (azole)in the maintenance of remission of chronic and recurrentdermatophytosis. An open-label, randomized prospectiveactive-controlled non-inferiority study

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Introduction & Objectives:

Dermatophytosis is considered as chronic when the patients suffer with the infection for more than 6 months to a year with or without recurrence despite being having adequate treatment. Dermatophytosis is considered to be recurrent when there is recurrence of tinea lesions within 6 weeks of completion of the

treatment. It is currently a disease of worldwide importance and a public health issue in many parts of the world especially in developing countries. The disease does not cause the mortality but it deleteriously affects the quality of life. The chronicity of dermatophytosis is a major challenge to the dermatologists to manage patients nowadays. It has been postulated that in dermatophytosis, there is significant increase in the transepidermal water loss and disturbed formation of extracellular lipid bilayers leading to skin barrier dysfunction.

Literature on emollient use in the management of chronic and recurrent dermatophytosis is limited.

Objective: To assess the efficacy of emollient in the remission maintenance of chronic

and recurrent dermatophytosis.

Materials & Methods:

This was a randomized open-label study with the intention to treat which was carried in a tertiary medical institute in Western part of India over a period of 1 year. Written, informed consent was obtained from all participants before enrolment, including agreement for publication. In this randomized open-label study with the intention to treat, 80 patients with chronic recurrent dermatophytosis were randomized into two groups, where both groups were treated adequately for 6 weeks, followed by continuation of topical azole in group A and topical emollient in group B for 6 weeks. Clinical remission was determined by disappearance signs and symptoms of tinea lesions with or without hyperpigmentation. Physician and patient global assessment scores were evaluated every 2 weeks for 6 weeks to assess remission maintenance.

Results:

A total of 80 patients of chronic and recurrent dermatophytosis were assessed for remission maintenance. The recurrence of disease occurred in 20 patients overall, wherein 7 patients (17.5%) in group A and 13 patients (32.5%) in group B at the end of the study (18 weeks); however, the difference between the two groups was not statistically significant (p = .121). The mean physician global assessment scores of group A and group B at 12 weeks were 4.45 ± 0.74 and 4.15 ± 0.92 , 4.43 ± 0.90 and 4.10 ± 0.98 at 14 weeks, 4.0 ± 1.32 and 3.98 ± 1.23 at 16 weeks, 3.85 ± 1.44 and 3.90 ± 1.35 at 18 weeks, respectively. The mean patient global assessment scores of group A and group B were 4.65 ± 0.62 and 4.25 ± 0.87 at 12 weeks, 4.40 ± 0.87 and 4.17 ± 0.98 at 14 weeks, 4.18 ± 1.15 and 4.12 ± 1.30 at 16 weeks and 3.97 ± 1.33 and 3.90 ± 1.51 at 18 weeks.

Conclusion:

The present study concludes that the efficacy of emollient was not inferior to topical luliconazole for maintaining remission in chronic and recurrent dermatophytosis.

Recurrent Ecthyma infection in a patient with leukemia

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Introduction & Objectives:

Ecthyma represents a severe manifestation of non-bullous impetigo, primarily instigated by the infection with Streptococcus pyogenes or secondary streptococcal invasion of a pre-existing ulceration or scratched insect bite. Individuals across all age groups, genders, and ethnicities can be affected, although children, the elderly, and those with compromised immune systems are at heightened risk of contracting the infection. Additional risk factors include inadequate hygiene practices, physical trauma, and scratching (e.g., due to insect bites). Lesions typically localize on the lower extremities, initially appearing as vesicles or pustules on inflamed skin, which, over several days, evolve into hemorrhagic crusts. Healing of lesions often results in scarring. It is advisable to screen for underlying immunodeficiency in patients presenting with Ecthyma.

Materials & Methods:

A 70-year-old female with a medical history of leukemia, hypertension and diabetes mellitus reported to our department due to the development of multiple solitary disseminated hemorrhagic crusts on the face and upper extremities, along with atrophic cicatrices, resulting from a previous Echtyma infection half a year ago. The prior Echtyma infection manifested with three to four hemorrhagic crusts on the face and upper extremities, which were successfully managed at the Primary Health Care Center using topical and systemic treatment modalities. Immunodeficiency due to leukeumia was identified as the sole risk factor for recurrent infection, following comprehensive medical history assessment.

Results:

The patient exhibited no systemic manifestations of infection. Labaratory investigations revealed neutropenia (present over the course of one year), mild thrombocytosis, normal red blood cell count, and elevated serum C-reactive protein level of 49 mg/L (normal range: 0 – 5 mg/L). Swab analysis from the wound indicated a Streptococcal infection, while blood cultures yielded sterile results. Given the evident clinical presentation, a skin biopsy was not pursued. Treatment involved successful management with topical antiseptics and antibiotics (accompanied by soaking of crusted areas) and oral administration of cephalosporines.

Conclusion:

In this report, we highlight a rare, recurring Ecthyma presentation in an immunocompromised female, devoid of bacteremia. The clinical manifestation primarily links to toxin-driven vessel wall invasion, causing subsequent ischemic necrosis and the development of necrotic ulcers with a black/grey eschar and an erythematous halo. Ecthyma, an uncommon bacterial infection, is even rarer upon recurrence. Our patient exhibited skin changes on the upper extremities and face, despite lower extremities being the typical site. However, literature reports such sites of infection predominantly in immunocompromised individuals. Additionally, we emphasize neutropenia as a common risk factor for Ecthyma in this population, consistent with our patient's presentation. Correction of

neutropenia might prevent recurrent episodes of the infection.

Leprosy case report: an extensive presentation

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Introduction & Objectives:

Leprosy is a disease that affects people from all ages and sexes. In the last year, in Brazil, more than 17 thousand new cases were registered, especially in the North, Northeast and Midwest regions. It is caused by the Mycobacterium leprae and can affect not only the skin but other parts of the body, if too advanced.

Unlike the data shown, our case shows a patient with advanced leprosy in a non-endemic region of Brazil, the fact that in São Paulo these types of cases are rare makes the patient's early diagnosis difficult.

This patient was referred to our service by a physician who attended the patient in the emergency room, but who did not know what the disease was. Which makes us bring up the discussion about the needs for better instruction of Brazilian doctors about this disease.

Materials & Methods:

A 40-year-old male patient came to us complaining of skin lesions that had appeared 2 months before. He referred that it started with a burning sensation on the face that evolved with swelling, it spread to the upper part of the body, without any associated symptom. After a month, the patient presented fever, loss of muscle strength and body aches. On the exam, the patient had infiltrated plaques and nodules on face and body, thickening of the auricular nerve, retroauricular nodule and on palpation of the median nerve, the sensation of shock. Also, on the strength test he presented 3/5 on upper limbs.

Results:

The patient was then submitted to bacilloscopy and biopsy of one of the lesions. The anatomopathological examination returned with dense accumulations of epithelioid cells forming granulomas surrounded by lymphocytes, which are distributed in the papillary and reticular dermis, favoring the result Tuberculoid leprosy. The patient was then referred to the specialized center for the treatment of leprosy.

Conclusion:

Leprosy is a disease that affects millions of people around the world and its clinical presentations often make its diagnosis complex and difficult for non-dermatologists. This results in underdiagnosis and consequently in greater transmission of the disease.

Our patient has some sequelae of the disease that will not be reversible and will possibly affect the rest of his life, because of the diagnose timing. Therefore, it would be extremely important in endemic countries for primary care physicians to be better educated about the diagnostic criteria and thus reduce new cases and infections.

A Case Report: Co-Infestation of Two Travellers to the Philippines

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Introduction:

Cutaneous larva migrans is a tropical parasitic dermatosis caused by the migration of nematode larvae into the skin of affected individuals after contact with contaminated soil. Although infestation typically resolves spontaneously within a few weeks, complications can arise, such as secondary bacterial infection or Löffler's syndrome, which may necessitate medical treatment. Here, we report co-infestation in two travellers who developed cutaneous larva migrans after visiting the Philippines.

Case Presentation:

A 40-year-old woman came in for a dermatological examination due to skin changes in the gluteal region. She had travelled to the Philippines a month prior to the examination. The day before returning home, she noticed the onset of erythematous papules on her buttocks with pronounced itching. Upon returning, she developed serpiginous, thin, erythematous-brown skin lesions throughout the gluteal area. It is important to note that her sister, who had also travelled with her, developed similar lesions on the buttocks. Laboratory tests revealed leukocytosis and significant eosinophilia, along with increased levels of IgM and IgE antibodies. Further diagnostics included parasite antigen detection in stool samples and microscopic examination of stool for cysts and eggs, ruling out intestinal parasitosis. Additionally, Sarcoptes scabiei was not found in the skin scrape, nor were fungal mycelial forms detected with negative fungal culture. Bacteriological skin swab was also negative. A probatory skin biopsy confirmed acanthotic epidermis and moderately dense perivascular infiltrates of mononuclear cells consistent with the histological picture of chronic dermatitis. Following consultation with an infectious disease specialist, it was decided to serologically analyse serum for tissue parasites, which confirmed coinfection with Ascaris lumbricoides and Strongyloides parasites in both patients. Treatment was initiated with albendazole at a dose of 400 mg twice daily and cefixime at a dose of 400 mg once daily, orally for seven days. The therapy led to the regression of clinical changes with residual post-inflammatory hyperpigmentation and reduction in inflammatory parameters in follow-up laboratory tests.

Conclusion:

Given the increasing frequency of travel to tropical regions, there is a growing number of travellers infected with tropical dermatoses. Therefore, detailed history-taking, thorough physical examination and timely diagnosis are crucial in recognising and successfully treating this emerging clinical entity.

Comparison of the efficacy of Intralesional Injections of Meglumine Antimoniate Versus Metronidazole in patients presenting with Cutaneous Leishmaniasis at tertiary care hospital, Karachi Pakistan

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Introduction & Objectives: Cutaneous leishmaniasis (CL) is one of the common parasite disease that affects people. Sand fly bites are the primary mode of transmission for leishmaniasis, which is often identified by a microscope-assisted smear examination of the afflicted region. Pentavalent antimony compounds like sodium stibogluconate and meglumine antimoniate are the preferred therapies for leishmaniasis. Ongoing research is being done to find effective, less hazardous therapies for leishmaniasis, however alternative drugs have been suggested for the disease.

To compare the efficacy of "intralesional meglumine antimoniate (MA) versus metronidazole" in patients presenting with CL.

Materials & Methods: All the 60 patients presenting with Cutaneous Leishmaniasis (CL) at the Outpatient Department of Dermatology, JPMC, Karachi during 29-04-21 till 29-10-21 meeting the selection criteria were enrolled. Disease history, demographic information and written informed consent was obtained from study participants. Patients were divided into two groups at random; (A) Intralesional injections of meglumine antimoniate group and (B) Intralesional injections of metronidazole. The procedure was done weekly for a maximum of 8 weeks' duration and during each visit the lesions was measured in size and photographed again and documented. Efficacy was labeled if patients with Cutaneous Leishmaniasis lesion in either group showed complete response. All the data collected and entered in the pre-designed Performa.

Results: Mean age and duration of CL in the meglumine antimoniate group was 48.21 ± 6.24 years and 1.54 ± 0.78 weeks. Mean age and duration of cutaneous leishmaniasis in the metronidazole group was 49.48 ± 8.41 years and 1.97 ± 0.56 weeks. Efficacy in meglumine antimoniate and metronidazole group was 24 (80%) and 12 (36.7%) respectively.

Conclusion: Meglumine antimoniate injections intralesionally have demonstrated an improved degree of cure in terms of the lesions' decreased size and induration. Treatment for cutaneous leishmaniasis with this approach is painless, simple to use, effective, and has few adverse effects.

Approach to chronic granulomatous skin infections

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Introduction & Objectives: Every day in daily practice we are confronted with different skin diseases, ranging from the very obvious where the diagnosis can be made by lay people or the undergraduate student, to a more difficult group where only experienced dermatologists can pinpoint the diagnosis

But there remains a small; albeit important 3rd group of diseases where even after extensive work & a lot of investigations; the final diagnosis remains obscure

Unfortunately; many of the granulomatous skin diseases, notably the neglected tropical diseases such as TB, leprosy & leishmaniasis; lie among the last group

The present work's objective was to shed light on the best way to address & treat these disease

Materials & Methods: patients enrolled in the study were all presenting with chronic granulomatous lesions, a detailed history was taken, a full examination was done, dermoscopy & histopathology were done

Results: a total of 36 patients with different disease presentations were collected, all of them sharing the common denominator of granuloma formation on histopathological examination, the majority (19) were found to have cutaneous leishmaniasis, 6 patients were found to have TB, one patient had leprosy, & the remaining were diagnosed as having atypical mycobacteria

Conclusion: Chronic granulomatous skin diseases are often a difficult challenge for the clinician, especially the uncommon diseases. "Common things are common" is a golden rule in medicine; but its applicability in this context cannot be over emphasized. An apt clinical history, meticulous histo-pathological evaluation, & good clinico-pathological correlation are of utmost importance in arriving at the final diagnosis

A keen understanding of the manifestations, workup, & subsequent treatment of both infectious and non-infectious granulomatous disorders of skin is essential to every practicing clinician and dermato-pathologist

disseminated nocardiosis originating from skin

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Introduction & Objectives:

Nocardiosis is an opportunistic infection commonly observed in immunocompromised individuals, particularly solid organ transplant recipients. Skin abscesses can be a presenting feature of Nocardia infection and may persist despite empirical antibiotic therapy. The objective of this study is to present a case report highlighting the challenges in diagnosing and managing Nocardia infection in a heart transplant recipient with persistent skin abscesses.

Materials & Methods:

This study presents a case report of a 57-year-old male heart transplant recipient who presented with abscesses on his right elbow and left buttock, along with fever. The patient had been on immunosuppressive therapy for three months post-transplantation. Detailed clinical history, physical examination findings, laboratory investigations, imaging studies, microbiological cultures, and antimicrobial susceptibility testing were performed. The patient's response to various antibiotic regimens and clinical outcomes were documented.

Results:

The patient's initial presentation included abscesses on the right elbow and left buttock, with associated fever. Despite receiving empirical antibiotic therapy, including ceftriaxone and daptomycin, there was no improvement in his condition. Subsequent drainage of the abscesses revealed Nocardia species, prompting a change in antibiotic therapy to sulfamethoxazole and linezolid based on susceptibility testing. Following this regimen adjustment, the patient's fever resolved, and there was significant improvement in the abscesses. Imaging studies demonstrated a lung mass, suggestive of disseminated Nocardiosis, which also showed improvement with antibiotic treatment.

Conclusion:

This case highlights the importance of considering Nocardia infection in immunocompromised patients, particularly solid organ transplant recipients, presenting with persistent skin abscesses. Prompt recognition and appropriate antibiotic therapy guided by susceptibility testing are crucial for successful management. Clinicians should maintain a high index of suspicion for opportunistic infections like Nocardiosis in immunocompromised individuals to ensure timely diagnosis and effective treatment.

disseminated herpes zoster in an immunocompromised patient

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Introduction & Objectives:

Herpes zoster (HZ), caused by the reactivation of the Varicella Zoster virus (VZV), presents challenges in clinical management, particularly in immunocompromised patients such as those with underlying malignancies. This case report aims to elucidate the clinical presentation, diagnostic challenges, and treatment outcomes of disseminated herpes zoster in a patient with advanced lung cancer undergoing maintenance therapy with Anlotinib, a tyrosine kinase inhibitor.

Materials & Methods:

A 63-year-old male with a history of lung cancer and metastases to bilateral kidneys and bones presented with disseminated herpes zoster involving multiple dermatomes. Clinical examination, laboratory investigations including liver function tests and polymerase-chain-reaction assays, and treatment interventions were documented. Treatment outcomes were assessed based on resolution of skin lesions and clinical improvement.

Results:

The patient exhibited erythematous eruptions and crusting blisters containing bloody fluid involving the left arm, right leg, and back. Despite 20 days of intravenous acyclovir therapy, there was limited improvement in the skin lesions. Polymerase-chain-reaction assays confirmed Varicella Zoster virus in samples obtained from the lesions. Switching to Brivudine led to resolution of the rash within one week.

Conclusion:

This case underscores the importance of considering disseminated herpes zoster as a differential diagnosis in immunocompromised patients with malignancies, especially when presenting with atypical or severe skin manifestations. Next-generation sequencing techniques may offer improved diagnostic accuracy for drug-resistant viruses. Brivudine emerges as a potential therapeutic option for herpes zoster resistant to standard acyclovir therapy, although contraindications must be carefully considered.

Leprosy-Tuberculosis Co-infection: Cross-sectional Study from a North Indian Tertiary Care Hospital

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Introduction & Objectives: Both leprosy and tuberculosis are quite common in developing countries such as India. Co-infection of these two diseases is uncommonly reported in literature in isolated case reports. This has been attributed to the differential growth rate of the mycobacteria and possible cross-immunity. However, others argue that certain individuals may be predisposed to develop both the diseases. Further, the use of corticosteroids for Hansen's disease has the potential to reactivate latent tuberculosis. The objective of our study was to identify the clinico-epidemiological profile of patients who had co-infection with leprosy and tuberculosis, to better understand the disease process.

Materials & Methods: This cross-sectional observational study was conducted at a North Indian tertiary care hospital for a period of 3 years from April 2021 to March 2024. All patients attending the leprosy clinic who had tuberculosis as well were included for study. Patient demographics, type of leprosy and reaction, type of tuberculosis and results of chest radiograph, IGRA, BCG status, family history etc. were recorded. Gap between the two diagnoses and predisposing factors, if any, were noted. All the data was compiled and analyzed.

Results: A total of 20 patients of leprosy with Tubercular co-infection were recorded. There were 11 males and 9 females. The mean age was 32.7 years. 16 patients (80%) had multibacillary leprosy. Type 2 lepra reaction was seen in 10 (50%) patients while type 1 lepra reaction was seen in 4 (20%) patients. Pulmonary tuberculosis was seen in 12 (60%) patients and another 2 (10%) had tubercular pleural effusion. One patient each had tuberculosis of skin (scrofuloderma), fallopian tube, abdomen, Pott's spine and TB tenosynovitis. Mantoux test was positive in 12 (60%) patients. TB was diagnosed first in 12 (60%) patients, leprosy was diagnosed first in 6 (30%) patients and 2 (10%) patients had the two diseases diagnosed concomitantly. Multidrug resistant tuberculosis was seen in 2 patients; both were on multidrug therapy for leprosy. One of the patients had already received anti tubercular therapy 3 years back. Only one (5%) of our patients had received BCG. Family history of TB was seen in 6 (30%) of our patients. Steroids and malnutrition were supposed to be the precipitating factors of tuberculosis in 05 (25%) and 03 (15%) patients respectively.

Conclusion: We found that** Leprosy-Tuberculosis co-infection is not rare, thus casting doubts on the relevance of the cross-immunity theory and highlighting inherent susceptibility in acquiring the two infections. The co-infection needs to be studies in greater detail as it raises important questions regarding diagnosis and management of the diseases, particularly about the emergence of drug resistance in tuberculosis. Absence of BCG vaccination appears to be an important risk factor for acquiring the two conditions.

Disseminated phaeohyphomycosis: Meeting the challenge of the exceptional in medical practice

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Introduction & Objectives:

Phaeohyphomycosis is a rare deep fungal infection caused by a black fungus (dematiaceous), which usually infect the host through trauma or inhalation and occurs in immunocompromised patients. It presents as a localized or disseminated infection, the latter being very rare. In our center, 12 cases are currently active, 7 of which correspond to males (60%), 4 within the age of 51-65 years (33%), 6 presented lower limb involvement (50%), of which only one manifested multiple disseminated fungal nodules in both lower limbs (8%).

The objective of this article is to provide an overview of phaeohyphomycosis as a rare deep fungal infection and the importance of clinical suspicion in diagnosing and treating disseminated variant promptly to prevent spread to critical organs such as the central nervous system, thereby reducing associated morbimortality.

Materials & Methods:

A narrative review of the literature was carried out.

Results:

This review focuses on a 58-year-old diabetic male, who presents a 3-month history of multiple painful skin-colored lesions of cystic appearance, some suppurative, affecting thighs, knees, and legs. Through histopathological studies, diagnosis of disseminated phaeohyphomycosis was made. Due to poor metabolic control, treatment with itraconazole 200mg/day was initiated with partial improvement.

Conclusion:

Being the phaeohyphomycosis a rare deep fungal infection, the disseminated variant is exceptional, representing a diagnostic and therapeutic challenge. Therefore, clinical suspicion is vital to initiate optimal therapies promptly and avoid dissemination to the central nervous system, thus reducing morbimortality associated to this entity.

Microwave therapy: a novel treatment for recalcitrant viral warts

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Introduction & Objectives:

Viral warts are a common disorder encountered in dermatology. Cryotherapy and salicylic acid are the typical first line treatments for viral warts, however recalcitrance is commonly observed. Microwave therapy is a novel treatment that was initially used by podiatrists to treat plantar warts. Previous studies have shown that microwave therapy is an effective treatment option for viral warts in both adults and children. Herein, we present 3 cases of patients who underwent microwave therapy for recalcitrant viral warts.

Materials & Methods:

Microwave energy was administered using the Swift S800 Microwave Device (Emblation Medical Ltd, Alloa, UK). Microwaves were delivered without topical or local anaesthetic to the warts through an applicator applied directly on the surface of the wart. Device settings were varied depending on the location of the warts, treatment response and individual pain thresholds.

Results:

Three patients ranging aged 27, 51, and 55 years old were treated for viral warts on the hands, genitals and feet. Either one or two sessions of microwave therapy were administered according to the protocol above. A pain score between 5 to 7 out of 10 was reported by the participants. However, no other adverse effects were noted. Following the treatment above, viral warts completely resolved in two of the patients and improved in one of the patients.

Conclusion:

Microwave treatment of viral warts shows promise as a safe and effective treatment for recalcitrant viral warts. The treatment is simple to administer and well tolerated, with pain being the main adverser effect.

Resistant cutaneous leishmaniasis in children: what is the therapeutic alternative?

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Introduction & Objectives: In Algeria, the treatment of cutaneous leishmaniasis is mainly based on pentavalent antimony derivatives (Glucantime). Despite significant efficacy, several cases of resistance have been reported, raising the question of the choice of a therapeutic alternative. We report the case of a 7-year-old child with cutaneous leishmaniasis resistant to conventional treatment, who responded favorably to fluconazole.

Materials & Methods: A 7-year-old male child with no previous pathological history was referred to us for the management of parasitologically confirmed nodular ulcerative-crustal cutaneous leishmaniasis.

The patient was initially treated locally with intra-lesional injections of meglumine antimonate, without any improvement. As a second-line treatment, he was twice systemically treated with IM meglumine antimonate at a dose of 20 mg/kg/d for 18 days, with clinical and parasitological failure.

Fluonazole at a dose of 2mg/kg/d for six weeks led to recovery.

Results: Since the first publication of fluconazole's efficacy in the treatment of Leishmania major cutaneous leishmaniasis in Saudi Arabia, several publications of case series and randomized trials have confirmed its effectiveness in different forms of cutaneous leishmaniasis, including those resistant to conventional treatments.

In a meta-analysis published in 2017, including 37 studies and 1259 patients, the three molecules of the azole family (fluconazole, ketoconazole and itraconazole) demonstrated an overall efficacy rate of 64% in the treatment of cutaneous leishmaniasis in both the Old and New Worlds. This rate varied according to the species involved, ranging from 15% (CI95%:1-84%) for L. tropica to 89% (CI95%:50-98%) for L. mexicana.

Conclusion: Fluconazole is a good therapeutic alternative for forms of cutaneous leishmaniasis that are resistant to or contraindicated by conventional treatments.

Delayed diagnosis in Hansen's disease: series of 3 cases

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Introduction & Objectives:

Hansen's disease has been called one of the great imitators of dermatology, due to its great variety of clinical manifestations. We present three cases with a delay in diagnosis of more than 2 years, where all patients presented previous incorrect clinical and histopathological diagnoses.

The purpose of this study is to describe the demographic, clinical, histopathological characteristics and delay in diagnosis of 3 patients with Hansen's disease.

Materials & Methods:

3 cases with delayed diagnosis of Hansen's Disease are reported, who attended our consultation between August 2022 and January 2023.

Results:

The demographic, clinical and histopathological characteristics of three patients are shown in Table 1. All patients presented a delay in diagnosis of more than 2 years from the onset of symptoms until the diagnosis was made in our center (Table 2). All patients attended more than 3 previous medical visits, with a maximum of 10 visits. 100% were evaluated not only by general practitioners, but also by specialists, including dermatologists (case #2 and #3). In addition to having previous incorrect clinical diagnoses, skin biopsies also reported incorrect histopathological analysis. This error in diagnosis implied, in case #3, immunosuppressive treatments, which even worsened the course of the disease.

Multiple cases have been described in the literature, where Hansen's disease has been misdiagnosed with other diseases such as lymphoma, lupus, erythema multiforme, among others. In a systematic review from 2022, different factors associated with late diagnosis were identified, including infrastructure, geographic location of reference centers, limited number of them, availability of resources and specialists. However, it was concluded that this delay in diagnosis is mainly due to poor diagnosis. Late detection occurs in 70% and 65% of cases, with detection periods between 3 months and 10 years before diagnosis, with an average of 22 months. 32.5% of the cases in the literature live with different diagnoses, leading to wrong and unnecessary treatments, as in our patients. Misdiagnosis may be due to: non-specific symptoms, asymptomatic patients in initial stages, unusual presentations and medical ignorance. The number of consultations for diagnosis has been established: 30% need more than 5 medical visits before suspecting the diagnosis and 45.5% of patients are diagnosed between the second and fifth consultation. Patients with more than 5 consultations have a delay greater than 24.4 months, in relation to those diagnosed in the first consultation. This delay in diagnosis means that more than 42% of patients are diagnosed with grade 2 disability, greater fear of stigmatization and more painful injuries.

Table 1: Demographic, clinical and histopathological characteristics of the patients

	Case #1	Case #2	Case #3
Age	27	46	54
Gender	Male	Male	Female
Medical history	Non-contributory	Non-contributory	Non-contributory
Ocupancy	Police	Agricultural mechanics	Accountant
Localización	Face, forearms, lower limbs	Generalized.	Generalized.
		Predominance: back,	Predominance: feet,
		upper and lower limbs	elbow and ear pavilions
Physical exam	Infiltrated erythematous	Infiltrated erythematous	Nodules and plaques,
	plaques, not painful.	plaques and multiple	erythematous, smooth
	Non-pruritic, scaly,	painful erythematous	and bright surface not
	hyperpigmented plaques	nodules	painful
Lymphadenomas	Yes	Yes	No
Nerve thickening	No	No	No
Sensitive tests	Negative	Negative	Negative
Bacilloscopy of	Ears: R:2+, L:3+	Negative	Ears: R: 4+, L: 4+
the slit-skin smear	Elbows: R: 5+, L: 2+		
	Knees: R3+, L:4+		
Histopathology	Nodular and dense superficial and deep lymphohistiocytic perivascular		
	inflammatory infiltrate, around adnexa and nerve fillets		
	Fite Faraco: AFB inside some histiocytes		
Definitive	Hansen's disease	Hansen's disease	Hansen's disease
diagnosis	Borderline lepromatous –	Borderline lepromatous –	Borderline lepromatous
	Lepromatous Leprosy	Lepromatous Leprosy	 Lepromatous Leprosy
		In reactional	
		phenomenon such as	
		erythema nodosum	

Table 2: Delayed diagnosis of the patients

	Case #1	Case #2	Case #3
Period between onset of symptoms and diagnosis	3 years	18 months	4 years
Previous medical visits	3	10	7
Doctors visited	General doctor, internist	General doctor (3), internist (2), intensivist, pneumologist, toxicology, immunologist, dermatologist	Dermatolpogist, rheumatologist
Clinical diagnoses	Dermatitis	Without diagnosis	Granuloma due to foreign agent
Histopathological diagnoses	Tuberculosis	Parapsoriasis	Granuloma due to foreign agent
Previous treatments received	Antibiotics: ciprofloxacin	Multiple antibiotics Systemic corticosteroids	Methotrexate Hydroxychloroquine Systemic and intralesional steroids

Conclusion:

Delay in diagnosis in Hansen's Disease continues to be a problem worldwide. It is important to educate, train and empower all health personnel, as this will reduce diagnosis times and thus avoid disabilities.

Effectiveness of four therapeutic modalities in the management of common warts in patients aged 1 to 30 years

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Introduction & Objectives: In the national dermatology center, approximately 10 daily patients diagnosed with verruca vulgaris were reported in 2017. The main objective of treatment is to eliminate the lesions, trying to minimize pain, avoid scarring and prevent recurrence. The purpose of this study is to compare the effectiveness of four therapeutic modalities used at the National Dermatology Center, Managua, Nicaragua, during the year 2022. By evaluating this, it will be possible to demonstrate which treatment option will have the best response and fewer adverse reactions.

Materials & Methods: According to the research method, the present study was quasi-experimental, correlational, prospective, longitudinal and of cause-effect. The study area of this research was focused on patients with a diagnosis of common warts treated at the National Dermatology Center, Managua, Nicaragua, in the period from June to December 2022. The number of treatments was four and the number of patients was 10 for each treatment. Liquid nitrogen: 3 cycles of 10 seconds sustained in each lesion, achieving a halo of 2-3 mm. Salicylated Vaseline 40%: Self-application at home of a Vaseline ointment with 40% salicylic acid until the entire area of the lesions is covered, with a frequency of 2 times a day. Glycyrrhizinic acid: Topical self-application at home of a solution of activated glycyrrhizinic acid spray, with a frequency of 2puff four times a day. Bleomycin: 1 bottle of bleomycin of 15 units, which was diluted with 15ml of 0.9% saline solution, obtaining a ratio of 1U/ml. 0.3U=0.3ml was applied for each lesion. Patients were followed every 4 weeks, for a total of 3 months using the therapeutic approach. They were scheduled after 3 months to assess the rate of recurrence of the lesions.

Results: The patients studied had an average age of 11.18 years. The patients in the study were 55% female and 45% male. They presented an average of 7.25 months of evolution of warts. In the adverse reactions, it was found that 70% presented some type of reaction to the therapeutic modality used and 30% did not present. Among the adverse reactions found, 50% of patients presented pain, 30% presented burning, 18% presented erythema, blisters and ulcer; 15% presented itching, 13% changes in sensitivity, 10% scar and 5% presented edema, hypo and hyperpigmentation. With reference to the time of disappearance of common warts, 37.5% disappeared in the third month using the assigned therapy, 20% disappeared in the 1st and 2nd month equally and 22.5% did not have a response to treatment. Of the 77.5% of patients whose lesions disappeared, 10% presented lesion recurrence 3 months after completing the established treatment. In the association between the therapeutic approach and adverse reactions, of the 70% who presented reactions, 25% used cryotherapy, 25% bleomycin, 12.5% glycyrrhizinic acid and 7.5% salicylated petroleum jelly.

Conclusion: The incidence of common warts at the end of treatment will depend on the number of lesions that the patient has at the time of recruitment. It was demonstrated that the adverse reactions with the therapeutic modality did have significant effects. Adverse reactions will depend on the therapeutic approach to be used, with the highest value obtained when liquid nitrogen or bleomycin is used and the lowest value when 40% salicylated petroleum jelly is used.

Lepromatous Leprosy Treated with "RMM"

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Introduction & Objectives:

Lepromatous Leprosy (LL) is characterized by high antibody titers to the acid-fast gram-positive bacillus Mycobacterium leprae and high bacillary load. Patients typically present with muscle weakness, anesthetic patches, claw hands, and indurated lesions causing thickening and induration, especially on the face (leonine facies). Patients may also present with foot drop, ulcerations of the hands and feet, autonomic dysfunction with anhidrosis or impaired sweating, and localized alopecia. Furthermore, it is characterized by extensive bilaterally symmetric cutaneous lesions with poorly defined borders and raised, indurated centers. The current standard of care for LL as outlined by the World Health Organization and the National Institutes of Health is a multidrug combination of dapsone, rifampin, and clofazimine. Here, we present a case of a patient who was diagnosed with LL and successfully treated with rifampin, moxifloxacin, and minocycline.

Materials & Methods:

Description of a clinical case and review of the literature.

Results:

A 44-year-old female from Chuuk (Micronesia) presented with a 1-year history of an itchy, bumpy, red rash on the arms, legs, chest, and back. She was being treated with triamcinolone, cetirizine, and prednisone for presumed psoriasis, without improvement. Exam showed erythematous smooth edematous coalescing plaques on the extremities, back, forehead, malar cheeks, and nose. Several plaques on the back also had central hypopigmentation. At this point, the patient also reported numbness and weakness in the fingers and toes, and physical exam demonstrated hypoesthetic lesions.

Biopsy showed superficial and deep granulomatous inflammation with lymphocytes. AFB and fite stain were positive for mycobacteria. PAS was negative for fungi. The patient was diagnosed with lepromatous leprosy (LL) and treated with methotrexate 15 mg weekly and folic acid, an extended prednisone taper with cholecalciferol every 2 weeks, rifampin, moxifloxacin, and minocycline. Her treatment regimen was managed by infectious disease.

Conclusion:

Rifamin, moxifloxacin, and minocycline (RMM) is an efficacious approach to multidrug therapy, with rapid clearance of LL skin lesions. Treatment with dapsone, rifampin, and clofazimine daily for up to 24 months, as recommended by the WHO, is an effective treatment and prevents drug resistance. However, there can be poor adherence to daily treatment, and patients are at risk of side effects including hemolytic anemia, exfoliative dermatitis, and life-threatening hypersensitivity reactions (from dapsone), as well as orange brown skin pigmentation (from clofazimine) which can be highly stigmatizing. The newer regimen of RMM has improved adherence, lower side effect profile, and can be administered virtually with minimal instruction required. Additionally, immunologic reactions during anti-mycobacterial therapy can be effectively managed with

methotrexate and low-dose prednisone, which has equivalent efficacy, better tolerance, and lower risk of side effects like metabolic dysregulation, cataracts, and osteoporosis associated with chronic use of higher-dose corticosteroids.

Think of leprosy, even in the era of elimination

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Introduction & Objectives: With 'elimination of leprosy' from most parts of the World including India, diagnosis of leprosy is becoming more and more challenging. The objective of this retrospective study was to determine the number of patients registered in a leprosy clinic in a tertiary care center in India who had not been diagnosed as leprosy at the initial evaluation.

Materials & Methods: Case files of 2,684 patients registered during 2009-2021 in the leprosy clinic of a large teaching, tertiary care hospital in North India were reviewed to determine the number of patients in whom the diagnosis of leprosy had initially been missed and there had been delay in initiating antileprosy treatment (ALT). We also identified the spectrum of diseases which were 'mis' diagnosed in these patients.

Results: Of the 2,684 retrievable files reviewed, we noted that in 256 (9.5%) patients, diagnosis of leprosy was missed by the health care provider at the initial evaluation, resulting in an unfortunate delay in initiation of ALT for periods ranging from 1-46 months. Of the 256 patients, in 32 (12.5%) the diagnosis of leprosy was missed at the primary health centre, in 59 (23.0%) by the general practitioner, in 38 (14.8%) by practitioners of alternate systems of medicine, in 11 (4.2%) by an internist and in 1 (0.4%) by an orthopedic surgeon. What was surprisingly that in almost half (115; 44.9%) the patients the diagnosis was missed by a dermatologist, who in India are specifically trained to diagnose and treat leprosy. In 187 (73.0%) of the patients, the delay in the diagnosis had led to development of disabilities — grade I in 100 (39.0%) and grade II in 87 (34.0%) patients. In 182 (71.1%) patients, the previous clinical records did not carry any diagnoses and the patient had been empirically treated with topical steroids (used as panacea for all 'skin ills'), vitamin supplements and antihistamines. Of the 74 (28.9%) patients in whom any diagnoses had been made, tinea corporis was the commonest 'mis' diagnosis (36; 14.1% patients). Other 'mis'diagnosis included orofacial granulomatosis and post kala azar dermal leishmaniasis in 4 (1.6%) patients each, rosacea, granuloma annulare and sarcoidosis in 3 (1.2%) patients each, while erythema annulare centrifugum, chronic actinic dermatitis, necrobiotic xanthogranuloma, Rosia Dorfman disease, papular xanthoma and multicentric reticulohistiocytosis were made in 1 (0.4%) patient each. One (0.4%) patient each with erythema nodosum leprosum (ENL) was 'mis'diagnosed as erythema nodosum, urticarial vasculitis and Sweet's syndrome. Eleven patients who had ENL did not present to a dermatologist but to an internist due to the presence of conspicuous systemic manifestations. Six (2.3%) of these patients were 'mis'diagnosed as systemic lupus erythematosus, 3 (1.2%) as lymphoma (due to generalized lymphadenopathy and hepatosplenomegaly) and 2 (0.8%) as vasculitis. The patient who had presented to the orthopedic surgeon was 'mis' diagnosed as nerve sheath tumor, based on MRI imaging. In all patients, the eventual diagnosis of leprosy (and its positioning on the Ridley Jopling spectrum) was established by reviewing the clinical findings, the histopathological picture and response to treatment.

Conclusions: Leprosy remains a great mimicker and clinicians really need to suspect leprosy in appropriate clinical setting, even in the era of elimination, lest the diagnosis is missed and patient develops disabilities due to delay in institution of therapy.

Current profile of the histopathological spectrum of Leprosy in the era of elimination as seen in a tertiary care centre.

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Introduction & Objectives:

Leprosy is still an important public health problem in developing countries. In 1991, WHO announced the goal of elimination of leprosy as a public health problem. (WHO 2008; GOI, 2007). Its epidemiological basis was that the prevalence of leprosy should be less than 1 per 10,000, which was achieved in India in January 2006. In the National Leprosy Elimination Programme (NLEP) in India in 2004, in the states heading towards elimination, rising proportion of multibacillary cases were seen. However, this was just a marginal increase, as paucibacillary cases still account for more than 60% of leprosy cases in India This study was undertaken to identify the histopathological pattern of disease and to categorize them into various types based on microscopy, bacteriological index and to correlate with clinical presentations whenever possible.

This study aims to assess the histopathological spectrum of skin lesions in leprosy and to categorize them into various types based on microscopic features and to correlate with the clinical presentation. We also tried to assess the parity between clinical and histopathological diagnosis in cases of leprosy using the Ridley –Jopling classification scale wherever possible.

Materials & Methods:

The present study was carried out at a tertiary care hospital in western India. It was a prospective as well as a retrospective study of leprosy patients during a period of 5 years. The target population was all age groups diagnosed with leprosy. The data related to histopathological findings and the results of Ziehl-Neelsen stain were also collected. The clinical history of patients were reviewed from the hospital records. Histopathological subtyping of skin biopsies were done to categorize them as per Ridley-Jopling scale (TT, BT, BB, BL, LL). Indeterminate leprosy (IL) and histoid leprosy (HL) were also taken into consideration. The statistical analysis was done using SPSS version. Chi square test (or Fisher's exact test in case of small frequencies in cell) was used to determine clinico- histopathological correlation of skin biopsy specimens.

Results:

A total of 55 cases were reviewed (age group: 10 -78 years). There was a male preponderance with male: female ratio being 2.24:1. Most common clinical feature was hypoaesthesia followed by hypopigmented patch. We found that the most common clinical as well as histopathological diagnosis of leprosy was BT followed by BL type. Most of the biopsies were of paucibacillary type (54.5%) and the rest (45.45%) were of multibacillary type. Epidermal atrophy was seen in 78.18% cases. 100% of the TT cases showed epithelioid granulomas. Highest clinicopathological correlation was seen in TT and HL (100%), followed by BT (82.4%) and BL (68.8%). The above findings correlated with pre and post elimination studies.

Conclusion:

Leprosy, although considered to be eliminated from India, it is not completely eradicated. In the post elimination era, there is a slight increase in BL cases. One of the major causes of continued transmission is the delayed

detection of multibacillary cases. The cornerstone of leprosy control in the post elimination era needs to be early detection and treatment.

Histoplasmosis with centrofacial clinical presentation

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Introduction & Objectives:

Histoplasmosis is a deep mycosis with worldwide distribution, with a high incidence in tropical countries. Its natural habitat is land contaminated with bird and/or bat feces. It is more common in men and immunocompromised, mainly due to HIV/AIDS. The objective of this case is to describe the clinical, paraclinical and histopathological characteristics of a case of histoplasmosis with atypical centrofacial clinical presentation.

Materials & Methods:

Describe the clinical, paraclinical and histopathological characteristics of centrofacial clinical presentation of Histoplasmosis.

Results:

25-year-old female patient, with no known history, presented with an erythematous papule in the left nostril, which later evolved into a painful crusted ulcer occupying the left nasal wing, nasal tip and upper lip, with a history of one year. During this time, she visited multiple specialists who indicated different cultures, biopsies and received several treatments, without clinical improvement, so she consulted our center. Physical examination: tachycardic, febrile, generalized mucous skin pallor. Ulcerated tumor measuring 4.5 to 5 cm, with edges at skin level, granular background, with crusted and necrotic areas, slightly erythematous perilesional skin, located on the upper lip, left nasal wing, bridge and nasal tip, with perforation of the nasal septum. Skin biopsy: granulomatous infiltrate with the presence of vacuolated macrophages filled with small spores surrounded by a capsule, positive with PAS stain. Complementary studies: pancytopenia, positive serology for HIV, viral load with 9024 copies and CD4+ count in 73 cells. Chest tomography: bilateral cavitated nodules. Skin tissue smear and bone marrow biopsy: intracellular blastoconidia compatible with Histoplasma capsulatum. Intradermal tests for leishmania, histoplasma and tuberculosis were negatives. Serologies for syphilis, hepatitis A, B and C, CMV-EBV, p-ANCA and c-ANCA were non-reactive. BK of sputum and blood cultures: negative. The diagnosis of chronic disseminated histoplasmosis is concluded. She received IV deoxycholate amphotericin B (0.5 mg/kg/day) and antiretroviral therapy with lamivudine, tenofovir disoproxil and dolutegravir, showing satisfactory clinical improvement at 52 weeks, for which he was discharged with oral treatment with Itraconazole 200 mg every 8 hours for 3 days and then 200 mg every 12 hours. Unfortunately, the patient passed away 5 weeks later due to meningeal tuberculosis.

Conclusion:

The centrofacial clinical presentation with perforation of the nasal septum of histoplasmosis is uncommon, with very few cases described in the literature. In the context of a centrofacial ulcer-necrotic disease, different differential diagnoses must be considered, which highlights the importance of the histopathological study to make the diagnosis and timely treatment.

Dermatophytosis severity score(DSS) - A novel method to assess the severity of superficial fungal infections and it's clinical implications.

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Introduction & Objectives:

Introduction: Dermatophyosis severity score is a new method to assess the severity of superficial fungal infections developed by us and published. We have taken various criteria to arrive atobjectively reproducible format which is of immense help in arriving at a conclusion regarding how to manage Dermatophytosis and also to assess the prognosis.

Objectives

- \1. How to assess Dermatophytosis severity score
- \2. Validate the assessment tool
- \3. Dermatophytosis severity score to assess the prognosis
- \4. Dermatophytosis severity score in steroid modified dermatophytosis
- \5. Dermatophytosis severity score and dermatology Life quality Index(DLQI) relatiion

Materials & Methods: We have described a tool to assess the severity of Dermatophytosis and validated for it's accuracy with a group of patients and validated by consultants and residents. We have taken various criteria to assess the severity including the nail involvement. We have to correlate this with disease severity and type of treatment given. Steroid modified tinea also can be assessed using this tool to assess the severity.

Results: DSS is a reliable method to assess the severity of Dermatophytosis. We have also correlated with the clinicimycological improvement and DLQI correlation with DSS score.

Conclusion: DSS is a reliable and useful tool to assess the severity of Dermatophytoses and helps in an objective assessment of the disease. We are the first one to describe and use this tool in various studies related to Dermatophytoses.

PKDL Chronicles, Navigating the complexities of Post Kala Azar Dermal Leishmaniasis

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Introduction & Objectives:

Title of paper: PKDL Chronicles, Navigating the complexities of Post Kala Azar Dermal Leishmaniasis

We are presenting a case of PKDL that we diagnosed and treated at our institute. Post-kala-azar dermal leishmaniasis (PKDL) stands as a puzzling manifestation following the successful treatment of visceral leishmaniasis (VL), a potentially fatal parasitic disease. Despite its significance, PKDL often remains misunderstood and overlooked, presenting a challenge for clinicians and researchers alike. This dermatological condition, characterized by skin lesions, can manifest months to years after apparent VL cure, complicating disease control efforts and posing therapeutic dilemmas. Unraveling the mysteries surrounding PKDL is crucial not only for its clinical management but also for comprehending the intricate dynamics of leishmaniasis transmission and persistence.

Materials & Methods:

We present a case of PKDL that came to our clinic. We admitted the patient for further work up and management. PKDL being a rare condition now, we reviewed the literature on work up and treatment updates. We found there to be no consistent treatment regimen and monitoring parameters. We present our patient where we have devised a regimen consisting of Liposomal Amphotericin B given IV infusions at 5mg/kg/week for 3 weeks along with Oral Miltefosine 50mg twice daily for 45 days based on reviewing multiple studies and for monitoring his treatment response we sent for Quantitative PCR at regular intervals to check for parasite load.

Results:

Our patient responded well to the treatment based on decrease in lesion size as well as decrease in parasite load on quantitative PCR.

Conclusion:

We find that regimen works quite well for our patient and would recommed the same for a suitable PKDL patient where the treatment is not contraindicated. We would recommed Quantitative PCR to check for parasite load in order to monitor treatment response. Furthermore, we recommend PCR as Gold Standard to confirm diagnosis of PKDL as skin biopsy and peripheral smears can often be inconclusive.

Immune zone in leprosy- A myth?

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Introduction & Objectives: Leprosy is still a neglected tropical disease still prevalent. It is a significant cause of morbidity for patients in these parts of the world. *Mycobacterium leprae*, which has a tropism for neural tissues; is historically reported to affect the cooler areas of body. This case report is a reminder that there is no site is 'immune' from leprosy and it can affect any part of the body

Case report: A 52 years old male presented with lesions over the palms and soles with progressive difficulty in fine movements of left hand since 2 years. Examination showed mobile partial claw hand along with well defined coppery coloured, anesthetic, xerotic plaque on left palm involving the dorsum of left hand and wrist with an ulcer over the radial aspect. There was thickening of ulnar nerves bilaterally. He also had diffuse loss of sensation over the distribution of medial and lateral plantar nerves on both feet. Biopsy from the plaque showed features of borderline leprosy. He was started on multibacillary Multi Drug Therapy for 12 months, topical antibiotics for the ulcer and physiotherapy

Discussion: Palmoplantar lesions in leprosy are not uncommon and are easily misdiagnosed. Palms, soles, scalp, genitalia, groins, and axillae are usually considered relatively spared zones to leprosy (immune zones) owing to their high local temperature. However, there are cases reported in literature where patients with leprosy presented with only palmoplantar lesions. Palms and soles being more prone to trauma along with rich nerve supply in these regions make them more prone to develop lesions. Also, the inconspicuous lesions may become more evident during an episode of reaction

Conclusion: Due to the common association of palmoplanatar lesions with deformity; they cause significant morbidity to the patient. Early diagnosis and treatment and high index of suspicion in areas of high prevalence of leprosy is must. Such cases always makes us question if the 'immune zones' in leprosy a myth

Clinical characteristics and pattern of use of topical and oral antifungal drugs in recalcitrant dermatophytosis: A hospital- based study.

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Clinical characteristics and pattern of use of topical and oral antifungal drugs in recalcitrant dermatophytosis: A hospital- based study.

Introduction & Objectives:

The treatment of dermatophytosis is becoming a great nuisance these days. Studies on clinical characteristics of recalcitrant dermatophytosis and the resistance patterns are the need of an hour.

The objective of this study was to characterize recalcitrant dermatophytosis clinically and to see pattern of use of existing antifungals drugs in these patients.

Materials & Methods:

Results:

Sixty cases of recalcitrant dermatophytosis were enrolled during this period. The mean age of the patient in this study was 34.47(SD + / - 11.96) with 32(53.3%) females and 28(46.7%) males. Housemakers (n=17), and students(n=16) were the most common occupational group affected by recalcitrant tinea infection. Plaque (75%, n=45) presentation was the commonest type followed by annular (15%, n=9), polycyclic (6.7%, n=4), and patch type (3.3%, n=2)). Single site was involved in 25 patients (41.7%) whereas multiple sites were involved in 35 patients (58.3%). Most of the patients (n=55) had history of use of topical treatment prior to the presentation and included topical corticosteroids (36.7%, n=22), topical antifungals (35%, n=21), and combination treatment (20%, n=12). Sixteen patients had history of use of oral drugs prior to presentation without any improvement; Itraconazole (23.3%, n=14) was the most common drug used, followed by Terbinafine (1.7%, n=1) and multiple drugs (1.7%, n=1).

Conclusion:

Most common presentation of recalcitrant dermatophytosis in this study was plaque type predominantly involving young females with multiple sites of involvement. Many patients had used topical corticosteroid and topical antifungals while majority had never used oral drugs prior to presentation in hospital.

Awareness And Attitude Towards Herpes Zoster Virus And Its Vaccination Among the General Population in Riyadh, Saudi Arabia: A Cross Sectional Study

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Introduction & Objectives:

Herpes Zoster (HZ) is a common viral infection resulting from the reactivation of a latent infection with the varicella-zoster virus. HZ prophylaxis has been strongly recommended in older adults through vaccination with a live attenuated vaccine. This study focuses on evaluating the knowledge, attitudes, and habits of the central region population of Saudi Arabia about the varicella-zoster virus and its vaccination.

Materials & Methods:

A quantitative, observational, cross-sectional study was conducted among 660 adults over 18 years old. Non-probability convenience sampling was used to select participants from public places. SPSS-23 was used to analyze the data.

Results:

Out of our cohort, 74.2% (n = 411) had heard of HZ, yet 11.4% (n = 75) did not recognize the link between chickenpox and HZ. Tukey's post hoc test showed that being a female or a healthcare professional was the only positive predictor of HZ knowledge. While 43.30% (n = 286) of participants had heard of the HZ vaccine; only 5.5% (n = 36) had taken it. Participants who had chickenpox previously were 0.2 times more likely to hear about the vaccine than those with no previous exposure. (p = 0.002). A minority (5.5%, n = 36) had taken optional vaccines; however, a majority were supportive of it, with only 6.9% against it (n = 46).

Conclusion:

The general population had a good understanding of HZ and its vaccine. Their attitudes toward the HZ vaccine were generally positive; however, poor practices were observed. We recommend arranging further national campaigns targeting at-risk populations to strengthen the Saudi population's awareness about HZ and its vaccine, subsequently increasing the rate of HZ immunization.

Disseminated Cutaneous Herpes Zoster in an Immunocompetent Patient

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Introduction & Objectives:

Herpes zoster is a clinical syndrome which usually presents with a localized, vesicular rash in a dermatomal distribution [1]. Cutaneous dissemination rarely occurs in immunocompetent patients. Herein, we report a case of disseminated cutaneous herpes zoster in an immunocompetent patient.

Case report:

A 73-year-old man with a history of HTA under treatment, presented to the emergency department with a metameric vesiculo-necrotic thoracic rash, with associated burning like pain of affected area, evolving for 72 hours. It was associated with diffuse varicella lesions all over the body. The general examination revealed a retro-auricular nodular pigmented lesion, that was biopsied. With no neurological, pleuropulmonary, digestive or ocular signs were noted. initial white blood cell (WBC) count was 13,000 cell/ L and elevated protein C-reactive to 55 mg/L. The biopsy showed an adnexal benign tumor. Treatment was based on intravenous acyclovir 10 mg/kg every 8 hours and local care, the follow up showed a good clinical improvement, except for persistent post zoster pain.

Discussion:

In immunocompromised patients, the risk of disseminated zona is twenty to one hundred times greater than in the general population of the same age [2,3]. The situations is most frequently associated with this risk include HIV infection, immunomodulators, hematological cancers and organ transplants In addition.

The prevalence of DCHZ in immunocompetent patients has not been established. Furthermore, the exact mechanism by which some apparently immunocompetent patients will develop disseminated zoster is not clearly understood [1]

Age-related decline of VZV seems to be one of the most important risk factors for VZV reactivation and subsequent HZ.1 This correlates with the average age of our patients [4]. In a recent study, allergic rhinitis, COPD, CAD, cerebrovascular accident, depression, diabetes, hyperlipidemia, hypothyroidism and osteoarthritis were associated with an increased risk of HZ [3].

cutaneous dissemination reflects a viremia, which may be accompanied by visceral involvement. Pneumonitis, hepatitis and encephalitis should be checked and Intravenous Aciclovir should be started [5].

Conclusion:

Disseminated Cutaneous Herpes Zoster can occur in any immunocompetent patient, although it is more predominant in older patients especially with chronic comorbidities. Despite cutaneous dissemination, overall mortality and morbidity is low.

Lepromatous leprosy resolving with cutaneous mastocytosis: A rare isotopic phenomenon.

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Introduction & Objectives: Isotopic phenomenon is described as the occurrence of any new unrelated dermatological disease at the site of a previously healed dermatosis. We report an interesting case of a lepromatous leprosy where following the complete treatment the lesions were replaced by brown hyperpigmented plaques of mastocytosis.

Materials & Methods: A 19 years old female presented to us, 3 years back with the complaints of red raised lesion over the face. On examination, she had multiple red to skin colored papules and plaques over the face, ear lobe and neck. Glove and stocking anaesthesia was present. Bilateral radial cutaneous and posterior tibial nerves were symetrically enlarged. Slit skin smear done from the face, ear lobe and ankle were 6+, 2+ and 3+ respectively. She was diagnosed as a case of subpolar lepromatous leprosy. Multibacillary multi- drug therapy was started for 24 months. Patient was relieved from treatment in view of completion of 24 packs of MB-MDT considering the possibility of clofazamine induced hyperpigmentation over the remnant flat brown lesions. She presented back to us again, 7 months post completion of treatment with the persistence of those hyperpigmented lesion over the face and neck. There was no history of sudden flaring of erythema over these lesions or flushing episodes. Darier sign was positive. Histopathological features were consistent with urticaria Pigmentosa. Toluidine blue stain showed scattered mast cells in the papillary dermis. Based on the clinical and histopathological evidence, the diagnosis of mastocytosis was established.

Results: Mycobacterium leprae triggers the recruitment and multiplication of atypical mastocytes, it can be hypothesized that this trigger led to an uncontrolled multiplication of mastocytes at the lesions thereby leading to cutaneous mastocytosis as in our patient. In our case, it could have been the bacterial infection triggering the mastocytosis.

Conclusion: Cutaneous mastocytosis (Urticaria Pigmentosa) can occur as an isotopic phenomenon over any plaque of lepromatous leprosy.

Title: Collage of Rare and Atypical case of leprosy- A case series

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Collage of Rare and Atypical case of leprosy- A case series

Introduction & Objectives: Even being on the pre-elimination era, leprosy, specially atypical cases are on rise in some pockets of India as well as few Asian countries.

Materials & Methods: Few atypical cases in last 6 months were evaluated and summarised as below.

Results: CASE 1: 48Y/M sudden onset painful swelling of face as found in malar rash of SLE. H/O Septoplasty 3 weeks back. Biopsy proved BT Leprosy with Type 1 Reaction. Surgical intervention induced the reaction.

CASE 2:

62Y/M red, scaly, mildly itchy plaque with hair loss over left forearm - 8months. H/O local application of irritant creams. Biopsy proved BT leprosy with Type 1 reaction with Allergic contact dermatitis

CASE 3:

51Y/M with sudden onset Erythema Multiforme like lesions with reddish papulonodular lesions mostly on both forearm. Biopsy proved BT leprosy with Type 2 reaction/ENL

Conclusion: A great level of clinical suspicion is prerequisite to diagnose and treat a typical case of leprosy. A maller rash like SLE, eczema or cellulitis like presentation, even a erythema multiforme can be atypical variety of leprosy.

Rare and atypical; dermatophytosis in the setting of topical steroid use

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Rare and atypical; dermatophytosis in the setting of topical steroid use

Introduction & Objectives: Topical steroid abuse is rampant in India as the creams are available in OTC(over the counter) market. As a result various atypical cases of dermatophytosis/tinea, those are

atypical in morphology, site of involvement or drug sensitivity pattern are increasing.

Materials & Methods: Few such cases in last 6months are evaluated and described.

Results:

Case 1: Widespread diffuse scaling

Case 2: Polycyclic lesions with

Case 3: Small grouped cyclic lesion over knee

Case 4: Rapidly developed pustules around tinea lesion after Mometasone use

Multiple small circular lesion with a large circular

Conclusion: Topical steroid abuse for dermatophytosis can covert the usual disease to a atypical

morphology, can involve atypical site or change the course of disease and treatment.

Avoid topical steroid use in superficial dermatophytosis or tinea infection.

A Rare Case of Leprosy complicated by consequent development of Cutaneous T Cell Lymphoma in a 60year-old Filipino Female

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Introduction & Objectives:

Leprosy (Hansen's disease) has been eliminated as a public health problem at the global level in the year 20001 and is believed by many to be a "disease of the past". Epidemiological data from the World Health Organization however, states that there are still more than 200,000 new cases of this infectious disease occurring in more than 120 countries every year, making Leprosy still a "disease of the present" for countries such as the Philippines. Complications of this disease include immune reactions, drug resistance and relapses, as well as association with visceral and lymphoreticular malignancies due to depressed immunologic surveillance. We present a rare case of Leprosy with Erythema Nodosum Leprosum (ENL) reaction failing to respond to multidrug therapy further complicated by the consequent development of Cutaneous T-cell Lymphoma.

Materials & Methods:

N/A

Results:

A 60-year-old female sought consult due to appearance of multiple erythematous hypoaesthetic annular plaques on her trunk and lower extremities. Histologic findings confirmed Leprosy (Hansen's Disease) Borderline Borderline spectrum. The patient was treated with Rifampicin and Dapsone for 12 months by a private physician followed by multi-drug therapy (MDT) for another 24 months at a tertiary hospital resulting to an improvement of lesions. One year after completion of treatment, the patient noted appearance of new erythematous tender annular plaques on the trunk and she was managed as a case of Erythema Nodosum Leprosum (ENL) Reaction. However, despite treatment with Clofazimine 300 mg/day for 3 months followed by Prednisone 1.5 mg/kg/day in tapering doses for more than a year, there was no improvement of lesions and there was noted appearance of several new erythematous nodules associated with extreme pruritus on her face and trunk. A repeat biopsy was performed on the new lesions revealing dense lymphocytic infiltrates, exocytosis of lymphocytes in the epidermis, and infundibular structures highlighted by CD3 stain. She was then managed as a case of Cutaneous T-cell Lymphoma (Mycosis Fungoides) and treated with narrow band UVB phototherapy, with subsequent response.

Conclusion:

Leprosy, a neglected tropical infectious disease, is one of the oldest known diseases to humanity yet is also one of the least understood as it results to a variety of devastating complications. Leprosy patients with ENL reaction on chronic immunosuppressants presenting with generalized erythematous plaques, nodules, and lymphadenopathy may easily mask Lymphoma. The association between Leprosy and Cutaneous T cell Lymphoma is still unclear. This case report is an addition to the little literature of cases of Lymphoma arising as a possible complication of Leprosy.

Uninvited Guests: A Clinical Encounter with Cutaneous Myiasis

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Introduction & Objectives:

Myiasis is Ectoparasitic infestation of human by larvae of the insect order Diptera. Cutaneous involvement is the most common type of myiasis: include furuncular, migratory, and wound myiasis1. This parasitic affliction is particularly widespread in the tropical and subtropical regions of Africa and the Americas where the most common species are Dermatobia hominis (human botfly) and Cordylobia anthropophaga (tumbu fly).1-2

In this abstract, we present a case of cutaneous myiasis encountered in our Emergency Department, detailing its clinical manifestations, diagnosis, and the treatment employed for the patient.

Materials & Methods:

A 34-year-old previously healthy woman presented to the ED at Saint George Hospital University Medical Center in Beirut, Lebanon, for multiple erythematous nodular lesions on her anterior thighs. They were pruritic and had been evolving over the last week. They first appeared the day after returning from a trip to Kenya and Burundi. On examination, 12 erythematous, tender, pruritic, furuncles 1-2cm in size were noted on her anterior thighs. The patient was afebrile, no lymphadenopathy, and had no respiratory symptoms.

Results:

Nodules were occluded with petroleum jelly. One hour later, yellow larvae became clearly visible at the lesion orifices and 11 larvae were extracted using Adson forceps with presence of serosanguinous discharge. Larvae were identified as Maggots by morphologic examination (picture 1). The patient was diagnosed with furuncular cutaneous myiasis and discharged on Ivermectin, Cefdinir, and Mupirocin ointment. At 2-weeks follow up, no new lesions were detected, and almost complete resolution of previous furunculosis.

Conclusion:

We present a case of furuncular myiasis. Skin lesions form when the eggs hatch on human skin and/or when the maggots themselves penetrate the skin. Upon larval penetration, an erythematous papule develops, eventually becoming a nodule resembling a furuncle. The development of cutaneous symptoms occurs within the first 2 days of infestation.1-3 Diagnosis primarily relies on a relevant travel history and the identification of typical lesions, characterized by a furuncular lesion with a central pore.3 Treatment involves complete larva extraction. Covering the opening of the lesion with an oily ointment induces larval suffocation, enabling manual extraction. For complicated conditions, such as multiple lesions or extensive cavity involvement, oral ivermectin treatment is recommended. Larvae may be transmitted to humans from mosquitoes, or from eggs laid on moist clothing, soiled blankets and in sand.1 Prevention in endemic regions includes avoiding damp clothing or laying in sandy areas.4

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Picture1: Larvae after extraction in our patient

Tuberculosis Verrucosa Cutis: Serial Case Reports

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Introduction & Objectives:

Tuberculosis (TB) infection remains a burden with WHO citing estimated 10.6 million people fell ill with TB in 2022. TB incidence rates have been increased compared to 2020 and 2021. TB skin infections are still common in countries where the incidence of the disease is high. Tuberculosis Verrucosa Cutis (TVC) is an extrapulmonary form of TB due to exogenous reinfection in immunocompetent individuals. In this paper, we report three cases of TVC that successfully treated with standard antituberculosis treatment.

Materials & Methods:

3 patients came to the outpatient clinic in 2023 with a complaint of non healing itchy erythematous plaques for more than 6 months in various body parts. The first patient is an otherwise healthy 46 years old male with two lesions in his right hand and right thumb that persist for 7 months despite various treatments. The second patient is a 52 year old male who has Discoid Lupus Erythematosus. He noticed a different lesion on the back of his right hand that has been slowly enlarged since 6 months ago. The third patient is a 44 years old female with persistent erythematous plaques on her right hand. We performed a punch biopsy on all 3 patients, the histopathological result is prominent hyperplasia of epithelium, diffuse lymphocytes and histiocytes infiltration, the presence of datia langhans cells, and granuloma which is consistent with TB diagnosis. We begin therapy with standard category 1 antibiotics for TB consisting of rifampicin, isoniazid, and pyrazinamide for 6 months.

Results:

The 3 patients have completed the 6 months regimen. The first patient still showed active lesions so we continued the maintenance phase for another 3 months with good results. The second and third patient had complete clearance of lesions leaving post inflammatory hyperpigmentation. All patients are satisfied with the result of their treatment.

Conclusion:

In the country with high incidence of TB, skin infection with Mycobacterium tuberculosis must be considered in diagnosing patients with chronic lesions. Standard antituberculosis therapy is still proven effective to treat extrapulmonary TB cases. Patient compliance is important to ensure successful treatment.

Cutaneous infection by Mycobacterium neoaurum treated with antimicrobials and cryosurgery

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Introduction & Objectives:

Mycobacterium neoaurum, a rapidly-growing non-tuberculous mycobacteria (NTM), that's ubiquitous in nature, typically affects immunocompromised individuals, causing catheter-related infections, bacteremia, and lung infections. We present a case of cutaneous infection by *M. neoaurum* in an immunocompetent patient.

Clinical case:

A 41-year-old male, non-relevant medical history, with ulcers on the leg of 2 years' evolution. The examination revealed a dermatosis localized on the anterior aspect of the thigh and knee and the back of the right leg. It consisted of seven ulcers, on average 2.2x4cm, with elevated and well-defined borders, some had crusts on the surface, verrucous appearance, and discharge. Histopathological analysis revealed chronic and suppurative inflammation with fibrosis. Immunosuppressive therapy did not improve suspicion of pyoderma gangrenosum. Bacteriological and mycological studies, as well as isolation through PCR-LCD for mycobacteria obtained from a biopsy, were negative. Nevertheless, due to clinical suspicion, histopathological tissue was sent for PCR-RFLP, which detected *M. neoaurum*. Treatment was started with levofloxacin and clarithromycin for 2 months. Additionally, a cryosurgery session with two cycles each of 30 seconds of freezing and 3 minutes of thawing, was performed obtaining a 70% improvement.

Discusion:

When faced with an immunocompetent individual, with a chronic cutaneous infection and negative results for common microorganisms, it's advisable to consider the possibility of an infection caused by non-common mycobacteria, such as *M. neoaurum*. Therefore, we recommend performing PCR-RFLP to specifically identify it. We believe that combined therapy (antibiotics and cryosurgery) could be a viable option for these cases.

Lupus Vulgaris Presenting as a Non-Healing Wound in a 59-Year-Old Filipino Male: A Case Report

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Introduction:

The World Health Organization reports that tuberculosis accounts for over 4,000 deaths daily, and is the second most common infectious killer after COVID-19 last 2022. Developing countries, in particular, have a higher incidence of tuberculosis, wherein the Philippines ranks fourth worldwide. Among all the kinds of extrapulmonary tuberculosis, only 1% to 2% are caused by the cutaneous type. Since cutaneous tuberculosis can mimic many other common dermatological conditions, it is frequently misdiagnosed. Hence, in patients with chronic non-healing wounds poorly responsive to standard treatment, cutaneous tuberculosis should be considered and promptly managed by dermatologists.

Case Discussion:

This is a case of a 59-year-old Filipino male, known hypertensive but non-diabetic, with a six-month history

of a non-healing wound on the right thigh, progressing into an indurated erythematous plaque topped with ulcers. On prior consults with several physicians, the lesion was managed as a bacterial skin infection treated with several courses of antibiotics, topical agents, and wound care. However, he was unresponsive to over three months of these regimens, so the lesion eventually progressed and spread to the right knee. Upon consult and physical examination, monofilament testing did not reveal any hypoesthesia, while diascopy showed apple jelly nodules. Dermoscopy revealed the presence of yellow globules, white scales, and linear vessels, all suggestive of Lupus vulgaris. On the other hand, complete blood count, blood chemistry, chest X-ray, and urinalysis revealed normal results. Tuberculin skin test was positive, while slit skin smear and the sputum and tissue GeneXpert were all negative. Histopathology also revealed negative Periodic Acid Schiff and Fite Faraco staining, and the diagnosis was a nodular granulomatous dermatitis accompanied by Langhans giant cells and caseation necrosis, consistent with cutaneous tuberculosis. He was subsequently managed as Lupus vulgaris, and completed a standard course of anti-Koch's regimen which comprised two months of isoniazid, rifampicin, pyrazinamide and ethambutol, followed by four months of isoniazid and rifampicin. After completion of the regimen, he had a remarkable resolution of the indurated plaque, leaving behind only hyperpigmentation and scars.

Conclusion:

Cutaneous tuberculosis (TB) may present with negative diagnostic tests, emphasizing the role of physicians to clinically recognize this curable disease. Interferon-gamma release assays (IGRA), tuberculin skin test (TST), and skin biopsy must be obtained in suspected cases. If histopathology is consistent with cutaneous TB, as in our case, the patient must be started on anti-TB treatment and response should be assessed at 4 to 6 weeks. Poor functional and cosmetic outcomes, or even squamous cell carcinoma, may result in long-standing untreated lupus vulgaris. Mortality would also depend on underlying diseases and host immunity. Therefore, dermatologists must have a high index of suspicion for cutaneous tuberculosis when encountering patients with non-healing or long-standing wounds or ulcers. In line with the Sustainable Development Goals (SDGs) of the United Nations to end the tuberculosis epidemic by 2030, dermatologists play a vital role in this worldwide goal by having timely recognition and management of a rare type of tuberculosis, the cutaneous type.

Ecthyma secondary to varicella

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Introduction & Objectives: Varicella has an uncomplicated course, but in immunocompromised it may complicate with secondary bacterial infections like cellulitis, abscess and necrotizing skin lesions. Our case highlights rare ecthyma-like complication of varicella in an immunocompetent child.

Materials & Methods: A 3-year-old girl, born of non-consanguineous marriage, with normal mile stones and immunized till date, had raw areas over face, trunk and extremities since 2 weeks. Patient was diagnosed and treated with Acyclovir for varicella 10 days prior to current lesions. Most varicella lesions healed with scarring, except few which formed ulcer with blackish crusts. There was history of varicella in sibling which had resolved without complications. Cutaneous examination revealed multiple, deep ulcers, 1x1 to 4x4 cm, with punched out margins, thick adherent black crusts over face, trunk and extremities. Vital parameters, general and systemic examination was normal. Histopathology revealed focal epidermal ulcer with dense upper dermal infiltrate of lymphocytes, neutrophils and eosinophils. Tissue culture showed gram positive cocci in chains and clusters (suggestive of streptococci and staphylococci), thus confirming ecthyma. Diagnosis of varicella complicated by necrotizing secondary bacterial infection (ecthyma) was made. Treatment included injectable Amoxicillin, Ceftriaxone, Vancomycin and Linezolid, potassium permanganate compresses and Ozenoxacin 1% cream. Ulcers slowly healed with scarring over 4 weeks.

Results and conclusion: Factors associated with complications in varicella include topical, systemic, and inhaled steroids, immunosuppressants, NSAIDs, old-age, HIV, atopic dermatitis and low income. Although varicella complications were thought to be immune status dependent, immunocompetent children can be affected. In contrast to varicella gangrenosum which develops within 24-48 hours, secondary bacterial infections occur 10-14 days after an episode of varicella. Diagnosis is clinical (ulcers with necrotic tissue) aided by pus culture (common pathogens being Streptococcus pyogenes and Staphylococcus aureus) and biopsy. Prompt aggressive treatment with broad-spectrum antibiotics is warranted. One should be mindful of complications like necrotizing ecthyma in varicella even in an immunocompetent patient for timely treatment and recovery.

A cross-sectional single center study of Dermatophyte infection in children of Astana, KAZAKHSTAN

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Introduction & Objectives:

It is major public health challenge in the world, with tinea capitis being the most predominant infection affecting school children. An increase in the number of chronic, recurrent, or recalcitrant dermatophytosis in Kazakhstan is alarming. Better surveillance and standardized treatment protocols, in addition to increase awareness with precise epidemiological data and improved knowledge regarding fungal biology can decrease the overall prevalence of dermatophytes in Kazakhstan. These are preliminary data; the final results will be discussed after molecular determination of dermatophytes using polymerase chain reaction and testing for sensitivity to antifungal drugs. The study was undertaken to determine the prevalence, clinical types and species of dermatophyte infection among school children in Astana, Kazakhstan, during 12 consecutive months in 2022.

Materials & Methods:

Single center study involved children with a clinical and laboratory diagnosis of "Dermatophytosis", who received treatment in the dermatological unit of the multidisciplinary hospital No. 3 of Astana. Biological material (skin scrapings and plucked hairs) was collected from the affected areas for sowing on a nutrient medium. Final determination of species was made based on their colony and microscopic morphology, nutritional and biochemical characteristics.

Results:

82 children aged 4 to 17 years (mean age 10.4 years) participated in the research. There were 45 female participants (54.9%) and 37 male participants (45.1%). By clinical forms of dermatophytosis, 43 people (52.4%) had tinea capitis and 39 people (47.6%) had a diagnosis of "Tinea corporis". The prevalence, 72.0% of all infections, 59 cases, were caused by Microsporum canis, followed by Trichophyton mentagrophytes in 15 cases (18.3%), while in the remaining part (8 people, 9.7%) the causative agent was Trichophyton rubrum.

Conclusion:

Although, Tinea capitis is the commonest clinical type, followed by Tinea corporis, in our cohort of children, there was almost an equal number of both infections. The fungal cultures identified the species of Microsporum canis and Trichophyton mentagrophytes, 90.3% of patients had a zoophytic infection, highlighting the necessity to identify the animal source of infection. Our study had led to the development of protocols for the Mycological cure after completing treatment, clinical follow-up for recognition of treatment failure.

The coexistence of herpes zoster and erysipelas: study of a rare isotopic reaction

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Introduction & Objectives:

Herpes zoster is a viral dermatosis secondary to reactivation of the Varicella-Zoster virus, characterized by a vesicular, painful, and unilateral rash with a distinctive metameric distribution. We report 2 cases of herpes zoster occurring on erysipelas, a rare association.

Materials & Methods:

Results:

Case 1: A 44-year-old female patient with a history of right breast cancer treated with surgery and radio-chemotherapy who consulted us for a unilateral pruritic rash evolving for two days with fever. Clinical examination revealed multiple vesicles grouped in clusters over an inflammatory plaque on the right hemithorax and arm. Biological tests showed an inflammatory syndrome with a CRP of 63. The diagnosis of Th1-Th5 right thoracic herpes zoster on erysipelas was retained and the patient was treated with Penicillin G IV 16 MUI/d and Valaciclovir 3g/d for one week with good clinical evolution.

Case 2: A 71-year-old patient with a history of diabetes, hypertension and atrial fibrillation presented with a six-day history of an inflammatory plaque on the right leg with fever. Clinical examination revealed an erythematous, warm, painful plaque on the right leg, with vesicles in a linear, systematized pattern along the L4 dermatome. Biological tests showed an inflammatory syndrome with CRP at 45 and hyperleukocytosis at 15,000 elements/mm3. The diagnosis of L4 herpes zoster on erysipelas of the right leg was retained. The patient received penicillin G IV 20MUI/d with good clinical evolution.

Conclusion:

We report two cases of isotopic co-reaction with herpes zoster occurring at the site of an erysipelas.

Wolf's isotopic reaction is defined by the appearance of a new dermatosis on the precise site of an old, cured dermatosis, often herpetic, unrelated with the new one. Secondary conditions frequently reported in the literature include granuloma annulare, lymphoma, leukemia, psoriasis, lichen planus and carcinoma. The definition of this reaction required that the original dermatosis had healed, and that the skin had a normal clinical appearance or minimal residual changes. The occurrence of psoriasis on vitiligo lesions, for example, did not meet this definition. Some authors have suggested revising and simplifying the terminology. In cases where two active dermatoses occur one on top of the other, as in our 2 cases, the same authors have proposed the term isotopic co-response. Further studies are needed to better understand its pathophysiological mechanism.

Fusarium infection in an immunocompetent patient successfully treated with topical ketoconazole

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Introduction & Objectives:

Fusarium is a genus of filamentous fungi widely distributed in soil, plants and air. In humans fusarium species cause a broad spectrum of disease including superficial, locally invasive or disseminated disease. Invasive and disseminated infections occur almost exclusively in immunocompromised patients, particularly among those with prolonged and profound neutropenia. Fusarium infection frequently involves the skin. In immunocompetent patients, fusarium infection is rare and there is often a history of prior skin breakdown or trauma. Typical cutaneous findings include onychomycosis, tinea pedis, cellulitis and ulcerated/necrotic lesions. Fusarium species exhibit limited susceptibility to antifungal agents and are often difficult to treat. Prognosis is related to the patient's underlying immune status and the disease is frequently fatal in disseminated disease.

Materials & Methods:

We report a rare case of superficial cutaneous fusarium infection in an immunocompetent male successfully treated with topical ketoconazole.

Results:

An 18-year-old Somalian male presented with a two-year history of a generalized pruritic rash.

He had no significant past medical history or regular medications. Prior to his dermatology review, he had been treated empirically for pityriasis versicolor by his general practitioner with topical clotrimazole 1% with an initial mild improvement and flare on discontinuation. He subsequently completed a three-week course of oral fluconazole 300mg once daily with no response. He reported that the rash was intensely pruritic. He was otherwise well with no underlying risk factors for immunosuppression.

On examination he had a symmetrical papulosquamous rash involving the arms, trunk, groin, and upper inner thighs. Histopathology from skin biopsies showed findings consistent with dermatophytosis with innumerable fungal hyphae and spores limited to the stratum corneum. PAS stain was positive. Minimal perivascular lymphocytic chronic inflammation was also noted in the superficial dermis.

Fungal skin scrapings were taken, and the patient was advised to use topical ketoconazole 2% short-contact bodywash in the interim. Skin scrapings showed fusarium species, however, the patient's rash had completely resolved with topical ketoconazole on one month follow-up.

Conclusion:

Our case is interesting as fusarium infection in immunocompetent hosts is rarely seen. Furthermore, the presentation with a generalised papulosquamous rash and response to topical ketoconazole is highly atypical. To our knowledge, this is the first reported case of a widespread superficial cutaneous fusarium infection successfully treated with topical ketoconazole.

Clinical Masquerade: Unveiling Ecthyma Gangrenosum in the Differential Diagnosis of Monkeypox—A Case Series

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Title: Clinical Masquerade: Unveiling Ecthyma Gangrenosum in the Differential Diagnosis of Monkeypox—A Case Series

Introduction & Objectives:

Ecthyma gangrenosum is an uncommon bacterial infection predominantly associated with Pseudomonas aeruginosa, particularly affecting immunocompromised patients. Its resemblance to other vesicular and ulcerative diseases such as monkeypox poses diagnostic challenges. This case series aims to emphasize the rarity and critical nature of ecthyma gangrenosum, advocating for its consideration in the differential diagnosis of similar skin infections, especially in the context of recent monkeypox outbreaks. However, with the accumulation of cases in non-endemic countries, the clinical presentation has evidently diverged, showing variations that could be mistaken for ecthyma gangrenosum.

Materials & Methods:

This series details three clinically distinct presentations of ecthyma gangrenosum managed in a tertiary healthcare setting. Comprehensive clinical evaluations, alongside microbiological and histopathological investigations, were employed to confirm the diagnosis, differentiating them from other dermatological conditions, including monkeypox.

Results:

Case 1: A 12-year-old male with a known history of atopic dermatitis presented with an itchy vesicular rash distributed over his entire body, along with fever and headaches. The rash, characterized by clustered punched-out pustules and crusted, eroded plaques predominantly on the distal extremities. Despite initial concerns for monkeypox due to the clinical presentation subsequent skin punch biopsy and cultures identified methicillinsensitive Staphylococcus aureus and Streptococcus pyogenes. Monkeypox PCR testing was negative. A final diagnosis of ecthyma gangrenosum was made and the patient was successfully treated with intravenous ceftriaxone and clindamycin, followed by oral clindamycin.

Case 2: An 18-year-old male presented with acute onset of fever and rapidly progressing ulcerated skin lesions. The lesions, initially pustular, evolved into dry, crusted "volcano-like" ulcers with associated significant systemic symptoms. Physical examination revealed multiple whitish papules on the tongue and widespread crusted skin ulcers. Initial assessment suspected toxic shock syndrome and necrotizing fasciitis. laboratory and imaging investigations showed indicated disseminated intravascular coagulation (DIC). Histopathological examination from the surgical debridement and a skin punch biopsy showed nonspecific perivascular inflammation, vascular thrombosis, and absence of viral cytopathic changes. Negative monkeypox PCR and cultures confirmed ecthyma gangrenosum.

Case 3: A 55-year-old woman developed two rapidly appearing skin lesions on her left hand. Given her exposure

to her sons and the clinical similarity of the lesions, she was empirically started on oral antibiotics. The lesions resolved completely within one week of treatment with oral clindamycin, confirming the diagnosis of ecthyma gangrenosum.

Conclusion:

These cases highlight ecthyma gangrenosum's potential for misdiagnosis and the severe outcomes associated with delayed treatment. Given its rare occurrence yet fatal potential, and the current global vigilance due to the monkeypox outbreak, it is vital for healthcare providers to include ecthyma gangrenosum in the differential diagnosis of necrotic and ulcerative skin lesions.

Purpura fulminans in a patient with Candida sepsis: a highly lethal entity with an infrequent etiology

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Introduction & Objectives:

Materials & Methods:

Results:

We present the case of a 64-year-old male with a history of advanced diabetes requiring insulin therapy and chronic liver failure secondary to hemochromatosis. The patient was hospitalized due to septic arthritis of the left ankle, successfully managed with surgical drainage and antibiotics. However, his condition had rapidly deteriorated following the appearance of cutaneous lesions, requiring admission to the intensive care unit. On examination, the patient was hypotensive and disoriented. He presented with retiform purpura and necrotic ulcers on the pubic area, hips, buttocks, distal extremities and oral mucosa. Laboratory tests revealed anemia, thrombocytopenia, elevated inflammatory markers, and acute liver and kidney failures. Coagulation studies were normal.

Punch biopsy was rapidly obtained. Histopathology showed thrombotic vasculopathy with neutrophilic infiltration of the dermis and hypodermis, consistent with septic vasculitis and purpura fulminans. Skin tissue cultures were negative. Polymerase chain reaction microorganism identification on fresh skin tissue was positive for *Candida albicans*. Concurrently, urine and blood cultures were also positive for *C albicans*. The patient was started on fluconazole with marked improvement of the cutaneous lesions and overall clinical condition.

Acute infectious purpura fulminans (AIPF) is a rare but highly lethal disorder, with a mortality rate of almost 50%. It is due to an acquired deficiency of anticoagulants caused by ischemic hepatitis in the context of septic shock, causing widespread intravascular thrombosis and hemorrhagic infarction of the skin. The most common etiology is bacterial infection, most notably meningococcemia. AIPF secondary to Candida sepsis has been very rarely reported, with immune compromise being a probable contributing factor. AIPF can rapidly progress to disseminated intravascular coagulation and death, so early dermatological evaluation is essential for timely recognition and therapy, furthermore, timely skin biopsy may aid in rapid identification of the infectious agent.

Conclusion:

Improving sample collection and transport efficiency for molecular detection of dermatomycosis

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Introduction & Objectives:

Dermatomycosis is one of the most common fungal infections worldwide. Traditional fungal diagnostics are limited and can take several weeks. Molecular techniques can detect dermatomycosis pathogens quickly and allow for species-specific identification which is important for a fast and precise diagnosis. This importance becomes evident when considering the possible consequences of a delayed or incorrect treatment, preventing individuals from resorting to non-specific over-the-counter self-medication. In this study the performance of a novel flocked swab, specifically designed for cutaneous sampling finalized to molecular analyses, was evaluated.

Materials & Methods:

To evaluate the fungal DNA stability, cutaneous-specific flocked swabs (CSFS) were inoculated with a suspension of *Trichophyton mentagrophytes var. interdigitale* (ATCC 9533) with a concentration of 0.5 McFarland. Fungal DNA from the CSFS were extracted with microbial DNA extraction commercial kit, at time zero (T0) and after 4 weeks of storage at room temperature (RT) and analyzed using qPCR, Trichophyton mentagrophytes target commercial kit, and related qPCR instrument. To assess the swab collection efficiency, *Trichophyton mentagrophytes var. interdigitale* suspension was deposited on commercial skin artificial models onto twenty-four collection areas (20 cm2). Twelve collection areas were swabbed using pre-wetted collection approach while twelve using dry collection procedure. CSFS samples were then extracted and amplified following procedure used for fungal DNA stability tests.

Results:

Regarding fungal DNA stability test, samples taken at T0 exhibited an average Ct of 29.57 (standard deviation (σ) = 0.44), while those stored for four weeks at RT showed an average Ct of 28.14 (σ = 0.35). As for the swab collection efficiency test, in comparison to the average Ct value of the fungal stock control (28.59), dry sampling method displayed an average Ct value of 28.62 (σ = 0.32), while pre-wetted sampling method yielded an average Ct value of 30.28 (σ = 0.42).

Conclusion:

The findings suggest that this novel cutaneous-specific flocked swab may be appropriate for gathering and transporting skin samples for subsequent molecular analysis of dermatomycosis, potentially streamlining sample handling and management. Additionally, both dry and pre-wetted sampling techniques exhibited similar efficacy in swabbing collection tests on artificial skin models. Future research will delve into refining dermatomycosis sample collection and management in clinical settings.

Implementation of Interferon- γ releasing assay in dermatology of tertiary hospital in Korea : A single-center, retrospective analysis

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Introduction & Objectives: Interferon-γ releasing assay (IGRA) has gained attention as a sensitive tool for detecting latent tuberculosis (TB) infection, which is prevalent in Korea. In addition to checking IGRA in TB-related skin condition, such as erythema induratum, necessity of latent TB screening is gradually increasing as lots of immunosuppressive agent are introduced for skin disease. This study aimed to investigate the implementation of IGRA performed in dermatology of tertiary hospital in Korea.

Materials & Methods: We reviewed demographics, clinical diagnosis, responses to IGRA, past TB history, clinical courses, and chest X-ray of 1106 patients underwent IGRA at the Department of Dermatology, Busan Paik Hospital, from 2013 to 2023. We analyzed data according to sex, age, year in which IGRA tested, clinical diagnosis, and responses to IGRA.

Results: The male-female ratio was 1:0.7. Mean age was 44.5 years, ranging from 8 to 88 years. The total number of IGRA tests overwhelmingly increased over the past 10 years. However, only 7% of IGRA were for TB-related skin condition, such as erythema nodosum and erythema induratum, while the majority (93%) were for chronic skin diseases such as papulosquamous disorder, atopic dermatitis/eczema, and alopecia areata, which require long-term immunosuppressants. Positive rate of IGRA was 29.1% (322/1106), while only 5% showed abnormal chest X-ray. In the distribution of age, 70s showed the highest positive rate of IGRA (49%), followed by 60s (42%) and 40s (37%). Among the IGRA-positive patients without a past history of TB (97.7%), 60% completed treatment for latent TB. As for category of dermatologic conditions required latent TB screening, atopic dermatitis/eczema were the most prevalent (30%), followed by papulosquamous disorders (29.7%), and alopecia areata (17%), while positive rate was the highest in papulosquamous disorders (33%) and the lowest in atopic dermatitis/eczema (20%).

Conclusion: This study showed positivity rate of IGRA in dermatologic field is considerably high in Korea. As the use of immunosuppressive agents in dermatology is getting increased, the significance of IGRA in real-world dermatologic clinic should not be underestimated, especially for patients with chronic skin diseases and in older generation.

Syphilis: the great imitator A case where syphilis imitates hansen's disease

Priscilla Muñoz Mora

Title:

Syphilis: the great imitator

A case where syphilis imitates hansen's disease

Introduction & Objectives:

Syphilis is a sexually transmitted disease that is very well known worldwide.

Although we know that the primary skin lesion is defined as syphilitic chancre, the greatest importance at the dermatological level of this entity lies in the skin manifestations of secondary syphilis since they cover a wide spectrum and resemble those of other dermatoses, thus being called the "great imitator"

Materials & Methods:

This is a case report. Prior informed consent was obtained from de patient.

Results:

A 34-year-old female patient, drug addict, who consults the dermatology service due to a 2-month history of skin lesions that began at the level of the upper eyelid with subsequent spread to the neck, thorax and extremities. They are characterized by being erythematous plaques with an important infiltrated appearance and loss of the tail of the eyebrows. The lesions do not present loss of sensitivity but if palpated she, we document submandibular lymphadenopathy.

Our first clinical impression suggested that we were in front of a Hansen's disease vs Sweet syndrome, therefore we took biopsies which showed chronic granulomatous inflammation, and sent routine laboratories, resulting in HIV negative but to our surprise it presented VDRL 1:64 and FTA positive.

Treatment was started with benzathine penicillin and at the next evaluation the lesions showed significant improvement and she told us that she had previously a genital ulcer some time before the other injuries. The presentation of this patient's secondary syphilis caught our attention since it is not the usual manifestation and also had an important similarity to Hansen's disease.

Conclusion:

Due to the increase in cases of syphilis infection, it is always important to take it into account as a differential diagnosis in different skin eruptions and not forget to routinely send VDR and / or FTA ABS if we suspect that this entity. Since it is not unusual to be surprised with the diagnosis, as we saw in our patient who clinically appeared to have Hansen's disease and her final diagnosis was secondary syphilis.

Therefore, let us remember the importance of making a timely diagnosis, providing appropriate management, starting early treatment with penicillin and carrying out public health interventions since this will be the key to controlling syphilis infection and its spread.

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Catastrophic Botryomycosis: A Clinical Challenge

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Introduction & Objectives:

Botryomycosis is a chronic bacterial infection usually associated with trauma and foreign bodies that affects skin and less frequently internal organs. It is characterized by its chronic course and can cause serious complications [1,2]. We present a patient with a severe case of botryomycosis.

Materials & Methods:

We present a case of a 71-year-old male with severe, disfiguring, and debilitating botryomycosis affecting extensively the soft tissues of his foot. He has a 3-year story of a painful tumoral lesion growing on the plantar region of the left foot, with a confirmed diagnosis of botryomycosis due to *Pseudomonas aeruginosa* treated intermittently with ciprofloxacin and irregular follow-up due to economic and geographic factors. A year later the patient is admitted to our hospital with worsening pain and expansion of the lesion to the dorsal aspect of his foot. Magnetic resonance imaging showed an expansive lesion affecting the skin, subcutaneous tissue, and intrinsic muscles of the anterior foot. Due to extensive affection, the best option of treatment at this moment is amputation, however, the patient did not agree so we started antibiotics as a "neoadjuvant" treatment.

Results:

Botryomycosis is a rare infectious disease. Despite its name, botryomycosis is bacterial in origin and cases are mainly reported in the United States and Europe (1,2). *Staphylococcus aureus and Pseudomonas aeruginosa* represent the most commonly isolated bacteria. It typically affects the skin, developing after trauma or invasive procedures in patients with immunological or chronic conditions (1,3). Clinical presentation varies but often includes nodules, ulcers, and fistulas with purulent discharge, sometimes with granules due to the Splendore-Hoeppli phenomenon. The infection can extend to deep tissues and, rarely, internal organs. Diagnosis involves histopathological studies and cultures. Treatment requires prolonged antibiotic therapy tailored to specific bacteria. Severe cases may need surgical intervention (1,4).

Conclusion:

This case underscores the importance of a multidisciplinary approach for the effective management of botryomycosis, a rare but potentially serious disease. Adherence to antibiotic treatment is crucial to prevent relapses or disease progression, as evidenced by the patient's progression despite initial therapeutic attempts. Additionally, collaboration between dermatology, infectious diseases, and surgery is essential to comprehensively address this condition. Despite its rarity and variability in clinical presentation, with accurate diagnosis and appropriate treatment, botryomycosis can be managed, and serious complications can be prevented.

Resurgence or pseudo resurgence? of leprosy in Post Covid Era.

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Introduction & Objectives:

The COVID-19 pandemic has disrupted healthcare systems worldwide, potentially impacting the control of neglected tropical diseases like leprosy. The post-COVID-19 era poses unique challenges to leprosy control efforts, including interruptions in leprosy services, diversion of resources, and disruptions to surveillance activities. These disruptions may lead to underreporting of cases, delayed diagnosis, and suboptimal treatment, fostering conditions conducive to leprosy resurgence. This study delves into the implications of the post-COVID-19 era on leprosy resurgence or pseudo-resurgence phenomena, exploring the challenges and opportunities they present.

AIMS AND OBJECTIVES:

- To see the impact of the COVID-19 pandemic on the detection of new leprosy cases in a tertiary care center in New Delhi.
- To notice the presence of deformity and reactions in new cases of leprosy.

Materials & Methods:

- Study Design: Retrospective Cohort Study.
- Study Setting: Tertiary Health Centre in Delhi, India.
- Epidemiological Data: Obtain leprosy surveillance data from the Health Information Management System of the Tertiary Health Centre.
- Collect data on new leprosy cases diagnosed and treated at the health center from March 2020 to 8th May 2024.

Results:

The results indicate a concerning trend of leprosy's resurgence in the post-COVID era, with a notable increase in reported cases from April 2022 to May 2024 compared to the pre-COVID period.

COVID era (March 2020 to March 2022):

- A total of 35 leprosy cases were reported.
- The distribution of cases across different spectra included Borderline Tuberculoid (16), Pure neuritic (8), Borderline Lepromatous (4), Tuberculoid (4), Lepromatous (2), Indeterminate (1), with no reported cases of Histoid leprosy.
- There were 5 cases of Type 1 lepra reaction, 2 cases of Type 2 lepra reaction, 13 cases of Grade 1 deformity, and 11 cases of Grade 2 deformity.

Post-COVID (April 2022 to May 2024):

- There was a massive surge in leprosy cases, with 152 reported cases.
- The distribution of cases across different spectra included Borderline Tuberculoid (71), Lepromatous (26), Borderline Lepromatous (16), Borderline borderline (8), Pure Neuritic (13), Tuberculoid (12), Histoid (6)

• Additionally, there were 26 cases of Type 1 lepra reaction, 15 cases of Type 2 lepra reaction, 30 cases of Grade 1 deformity, and 31 cases of Grade 2 deformity.

The increase in cases post-COVID is alarming, suggesting a potential resurgence of leprosy. However, this surge in cases may be attributed to various factors, including disrupted healthcare services during the pandemic, delayed diagnosis and treatment, and increased transmission due to changes in social behavior or population movements. Considering these factors, it's plausible that the observed surge in leprosy cases post-COVID may be a pseudoresurgence rather than a true resurgence.

Conclusion: The significant increase in reported leprosy cases post-COVID suggests a pseudoresurgence rather than a true resurgence of the disease. This increase may be attributed to improved surveillance and case detection efforts following the pandemic, which led to the identification of previously undiagnosed cases. Also, delayed diagnosis and reporting of cases during the pandemic may have contributed to the observed surge in reported cases post-COVID era.

mycetoma: a neglected tropical disease

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Introduction: Mycetoma is a progressive, chronic, granulomatous, inflammatory, subcutaneous infectious disease usually of the foot caused by fungi (eumycetoma) or filamentous bacteria (actinomycetoma).

It typically affects poor communities in remote areas and is endemic in the tropics and subtropics. The causative agents, which are mostly present in the soil, are introduced into the subcutaneous tissue by traumatic injury.

World Health Organisation recognized mycetoma as a neglected tropical disease in 2016. Its diagnosis is challenging and tedious, involving many differential diagnoses. Late presentation is common, and that is due to the relatively pain-free nature of the disease in the early stages. Actinomycetoma generally responds well to antibiotics while eumycetoma needs both long-term antifungal medication and/or surgery. Antifungals used are expensive and can cause toxicity due to prolonged administration. Amputations and recurrences in patients with eumycetoma are common.

Case report: A 25-year-old male with a history of pain and swelling on the left foot for the past 8 years. Initially, there was only mild itching. Later on, he had pain and swelling which gradually intensified over the years. There was also some drainage with black grains on the dorsum part of the foot. He had been treated several times with different courses of antibiotics and analogsics with mild relief.

On examination, there was a tender swollen left foot with draining sinuses on the dorsolateral part. X-ray of the left foot was normal. Surgical debridement and curettage were done, and black grains were identified. Histopathology and PAS stain was done showing eumycetoma. Itraconazole was then prescribed. Six months later the patient was doing better but due to financial constraints, he could not continue with the given medications. The pain and swelling recurred whereby he resorted to using local herbs. As the pain increased especially on walking, he was then sent back to the hospital. This time the swelling was diffuse with black discoloration, painful movement and multiple sinuses over the lateral aspect of the left foot.

X-ray of the left foot was ordered which showed multiple osteolytic bone lesions. The decision to do amputation was then discussed with the patient. After consent, left leg below knee amputation was done. His postoperative period was uneventful. He was then given a prosthetic leg and discharged in stable condition.

Conclusion: Mycetoma remains a real cause of disability because it is often neglected in the initial stage. Early detection and treatment are vital to reduce morbidity and improve treatment outcomes and quality of life.

Souvenir from Sri Lanka

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Introduction & Objectives:

Materials & Methods:

Results:

A 25-year-old male of Indian descent was referred to the dermatology clinic because of groin lesions of several weeks duration. He reported good general health, no chronic medications and denied drug allergies. He had returned from a trip to Sri Lanka about 3 weeks before and during the trip, the patient reported diving in several lakes. On examination numerous erythematous and infiltrated nodules were observed bilaterally at the inguinal level. Some of them showed effusion of hemorrhagic-purulent material. Lesions on palpation were infiltrated and the patient reported difficulty in walking, itching and pain. There were no systemic symptoms and no genito-urinary symptoms. Lesions started as macular and scaling, and application of topical corticosteroids and antifungal agents led to a transient amelioration of the skin lesions, which then become infiltrated. The patient was referred first to infectious disease specialist who excluded cutaneous schistosomiasis. Then the patient was referred to our department. A potassium hydroxide preparation of purulent material from one of the lesions showed typical dermatophyte hyphae and culture showed the presence of *T. mentagrophytes*. Terbinafine 250 mg/day was prescribed. After 1 week, a marked improvement of the lesions was noticed, and after 6 weeks, complete resolution of skin lesion was observed. In conclusion, deep fungal infections are often misdiagnosed mainly due to inappropriate use of topical corticosteroids by patients. Deep mycoses can be a great mimic, and it is important to consider this diagnosis even in patients who have previously used topical antifungal therapies.

In conclusion, deep fungal infections are often misdiagnosed mainly due to inappropriate use of topical corticosteroids by patients. Deep mycoses can be a great mimic, and it is important to consider this diagnosis even in patients who have previously used topical antifungal therapies.

Conclusion:

Tinea Recalcitrant In Erythema Nodusom Leprosum Patient

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Introduction & Objectives:

Dermatophytes infection of the glabrous skin (tinea corporis) is fungal infection that invade and multiply within keratinized tissues like skin, hair, and nails. Dermatophytes can also be responsible for extensive or invasive forms in immunocompromised hosts. Leprosy type two reaction also known as erythema nodosum leprosum (ENL), a serious and often chronic complication caused by changes in immune system that often require use of steroid as treatment. This case to present tinea corporis recalcitrant in ENL patient on steroid therapy.

Materials & Methods:

Results:

A 42-year-old man was suffering from ENL on prednisone treatment. He was released from treatment (RFT). He came to the outpatient clinic due to redness patches in the abdomen, which were accompanied with itching especially while sweating. Dermatological examination in abdomen area revealed polymorphic plaques with erythematous along with papules and scales changes in the shape of circles. The center of lesion was inactive while the border remained active with distinctive bordering line to the skin around. The feature of hyphae was noted from potassium hydroxide (KOH) examination of skin scrapings. The patient was treated with griseofulvin for 6 weeks, but the lesions still persisted and KOH examination remained positive result. Gross and microscopic colony found on Sabouraud dextrose agar (SDA) plus antibiotic showed the characteristics of *Trichophyton mentagrophytes*. The treatment was changed from griseofulvin into terbinafine 250 mg daily for 4 weeks, and the outcome was great, characterized by good clinical cure and negative mycological cure.

Conclusion:

ENL on steroid treatment often lead to immunocompromised condition in leprosy patient. Thus, patient in this condition should be educated regarding the possibilities of complication, including dermatophyte infection. Early diagnosis and appropriate treatment are necessary to minimize the potential for recurrency. Patient should be educated to be aware of the maintenance of personal health and hygiene to reduce the incidence of dermatophytosis.

A rare condition: Necrotising fasciitis with underlying hepatitis C infection and cirrhosis

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Introduction & Objectives: Necrotising fasciitis (NF) is a rare and serious infection of the soft tissues that affects the subcutaneous tissue and fascia. NF mortality and morbidity rates are quite high, early diagnosis and early effective treatment reduce these rates dramatically. Diabetes mellitus, chronic kidney failure, malignancy or cirrhosis are risk factors for NF. Although cases of NF in association with cirrhosis have been reported in the literature, cases in association with hepatitis C have been rare. We present a 52-year-old female NF patient with decompensated cirrhosis on the background of uncontrolled hepatitis C who had a diagnosis of bullous cellulitis at first presentation.

Materials & Methods: A 52-year-old female patient was admitted to the emergency department with complaints of pain, tenderness and a rapidly spreading rash that had developed 4 days earlier after she had scratched her leg. She had cirrhosis on the background of chronic hepatitis C and had not received any treatment. Dermatological examination revealed a painful plaque extending from the dorsum of the left foot to the left inquinal region with diffuse oedematous haemorrhagic fluid with bullae surrounded by ecchymotic tissue, with localised temperature elevation. The plaque was approximately 30 cm long. The patient was admitted to the dermatology service with a prediagnosis of bullous cellulitis and thrombophlebitis. Empirical antimicrobial therapy was started with ceftriaxone. Over the next few hours, the appearance of the wound became darker and more demarcated, the plaque enlarged and hardened, and necrotic tissue was seen on it. She was referred to the Orthopaedic and Plastic Surgery with a prediagnosis of NF after the findings of fasciitis were observed on the requested leg MRI. The Laboratory Risk Indicator for Necrotizing Fasciitis (LRINEC) score, calculated by the orthopaedic department, was determined as 3 and the NF was considered to be at low risk. Orthopaedics and plastic surgery did not consider acute surgical intervention. Antibiotherapy change to vancomycin, meropeneme, clindamycin by infectious diseases department. The necrosis line did not progress in the follow-up, but other systemic problems developed. She was referred to the gastroenterology service with a diagnosis of decompensated cirrhosis due to stabilisation of the skin findings.

Results: At day 30 of follow-up, the patient's general condition had improved. The necrotic plaque had stabilised and regressed by 20%. Reconstruction postponed until patient started antiviral treatment and liver function stabilized. The multidisciplinry followup, supported by plastic surgery, orthopaedics, infectious diseases and dermatology continues.

Conclusion: NF often results in severe illness, with a previously reported case fatality rate of over 40% in single-centre studies. The risk of developing NF was particularly high in patients with complicated cirrhosis. In addition, hepatitis C is not only a predisposing factor for NF, but also a predisposing factor for a worse prognosis. The management of necrotizing fasciitis is a multidisciplinary approach and the involvement of different specialties should be sought early. Cases of NF in which hepatitis C and cirrhosis of the liver together are risk factors are rare in the literature. Accompanying metabolic problems were quickly controlled by early hospitalisation, initiation of broad spectrum antibiotics and multidisciplinary management.

Crusted scabies: an unusual presentation

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Introduction & Objectives:

Crusted scabies is a rare form of scabies characterized by a massive infestation of mites that can number in the millions. Because of its unusual clinical features, it usually goes unrecognized for a long time, often leading to epidemics in communal establishments, hence the importance of early detection. We report a case of this severe form of scabies

Materials & Methods:

Case report: A 60-year-old female patient, with no previous history of the disease, presented to the dermatology outpatient department with generalized crusty lesions that had been evolving for 3 years.

Physical examination revealed diffuse hyperkeratotic lesions, covered with greyish-yellow, non-itchy crusts, involving the hands, feet, neck, scalp, face, trunk and limbs, with fissures on the palms and soles. Nail thickening was also observed.

Family members living in the same household had classic scabies symptoms of excoriated vesicles and papules with scratching lesions, involving the whole body with the face respected, associated with nocturnal pruritus.

Results:

In this case, crusted scabies was suspected, and treatment was initiated with oral ivermectin on days 1, 2, 8, 9, 15, 22 and 29, associated to benzyl benzoate, followed by permethrin and local keratolytics, with a good response.

Conclusion:

Crusted or Norwegian scabies is a severe form of the disease that occurs when mite replication is not controlled by the host immune system, and hyperinfection develops.

The clinical picture is dominated by massive local or diffuse hyperkeratosis on an erythematous background, with crusts and fissures on the hands, feet, elbows, head and neck. Nails are often thickened, discolored and dystrophic. There is little or no pruritus, mainly due to the absence of an immune response. Adenomegaly is common, and hypereosinophilia is almost always present.

In terms of diagnosis, crusted scabies must be differentiated from psoriasis, seborrheic dermatitis, atopic dermatitis, hyperkeratotic eczema, dyshidrotic eczema, psoriasis, palmoplantar keratoderma, erythrodermic mycosis fungoides and Sezary syndrome.

Management of scabies is difficult and includes isolation of patients until cured, use of combination therapy with oral ivermectin (e.g. on days 1, 2, 8, 9 and 15, and possibly on days 22 and 29) topical permethrin (daily for one week, then twice weekly until cured) and keratolytics, and treatment of all contact persons.

Experience of managing a patient with blastomycosis

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Introduction & Objectives: blastomycosis is a chronic infectious disease from the group of deep mycoses caused by B. Dermatitidis, endemic to tropical countries, North America, as well as the countries of the Middle East and India. In the vast majority of patients, pulmonary damage is recorded, however, as a result of hematogenous dissemination, in 20-25% of cases, damage to other organs, including the skin, occurs. It is also important to note that this disease mainly affects immunocompromised individuals

Materials & Methods: the patient, a 50-year-old man with complains to cutaneous lesions, was admitted to the AIDS center for examination and treatment. From the anamnesis it is known that the man came from Jordan 2 years ago, after he was subsequently diagnosed with diffuse large cell lymphoma, and therefore received 4 courses of RCHOP chemotherapy. Six months later, he noted the appearance of skin lesions in the area of the inner thigh.

Results: Upon examination, three large nodes with a diameter of up to 4 cm, with signs of ulceration, were identified on the skin of the inner surface of the patient's left thigh. A general blood test revealed leukocytosis and anemia. A computed tomography scan of the chest and abdominal organs revealed no pathology. Inoculation of purulent discharge on Sabouraud agar at a temperature of 37 °C made it possible to detect mycelium with round and oval condia at the end of the thread, characteristic of Blastomyces dermatitidis. The treatment included desensitizing infusion therapy with hepatoprotectors and antihistamines, antibiotic therapy (doxycycline 100 mg 2 times a day 20 days), and antifungal therapy (nystatin 500 mg 3 times a day, 30 days, terbinafine 250 mg 2 times a day, 20 days). As a result of treatment, the lesion flattened and decreased, and the discharge was not detectable. The patient was discharged for outpatient treatment with a recommendation to continue taking terbinafine for 2 months. **Conclusion:** thus, blastomycosis is a rare disease from the group of deep mycoses, usually found in immunocompromised patients and in late stages leads to damage to internal organs, as well as the nervous system.

Significant involvement of the roof of the oral cavity in a case of mucosal leishmaniasis

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Introduction & Objectives:

Mucosal leishmaniasis without prior or concomitant skin lesions is an uncommon manifestation because the amastigotes spread through the hematogenous or lymphatic route from the skin to the mucosa. In some cases, the presence of previous skin lesions can be unknown or go unnoticed. The most frequently affected site is the nasal mucosa (90% of cases), but it also affects the oropharynx, palate and mouth. We present a case of granulomatous and infiltrative lesion in the palate with occlusion of the nasopharynx due to mucosal leishmaniasis.

Materials & Methods:

A 71-year-old man presented in 2018 at the otolaryngology department with nasal injuries and hoarseness that has been evolving in the past 8 months. Furthermore, he had cough, bloody nasal secretion and mild dyspnea. He denied skin lesions. On examination, he presented diffuse granulomatous lesions on the oropharynx, complete destruction of the nasal septum and intense yellowish secretion. After undergoing the requested exams, a positive PCR for leishmaniasis was obtained, alongside chest computadorized tomography findings indicating budding tree patterns and micronodules within the parenchyma. Nasofibroscopy shows edema and inflammatory process in the epiglottis, granulomatous process in the arytenoid and ventricular bands with bilateral involvement, free vocal cords.

A regimen of liposomal amphotericin B was administered over an 11-day period, resulting in notable amelioration of both the mucosal injuries and associated symptoms, while persisting structural deformation on the oropharyx.

In 2020, there was a deterioration of the condition characterized by odynophagia, granulomatous mucosa extending from the hard palate to the uvula, and thick nasal mucosa secretions. A subsequent course of liposomal amphotericin B treatment was initiated, leading to clinical improvement.

Three years later, he presents with an infiltrative lesion spanning from the hard palate to the posterior wall of the oropharynx, accompanied by infiltration of the nasal wing, alar cartilage, and nasolabial fold.

Results:

The patient underwent a 28-day course of pentavalent antimony and pentoxifylline, resulting in clinical improvement. Currently, there is an infiltrated mucosa in the palate causing closure of the nasopharynx, although a communication tract has been established between the nasal cavity and the oropharynx by the evolution of disease itself.

Conclusion:

The main form of clinical manifestation of mucosal leishmaniasis is the formation of ulcers, which can lead to significant facial disfigurement and serious impairment in quality of life. However, other forms of presentation with severe involvement may be possible, with the potential rare complication of airway obstruction leading to

asphyxia and death.

Disseminated fusariosis in a 2 year old B-cell acute lymphoblastic leukemia patient

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Introduction & Objectives:

Fusarium species cause a broad spectrum of infections in humans including superficial (such as onychomycosis and keratitis), locally invasive or disseminated infections (occurring almost especially in seriously immunosuppressed individuals) (1) The clinical form of fusariosis depends on the immune status of the patient and the entry point of infection (2). Keratitis and onychomycosis are the most common infections among immunocompetent host. Infection rarely may occur as a result of skin barrier damage, such as wounds and burns (1) or the presence of foreign bodies, such as fusarial keratitis in contact lens users (3). Other infections in immunocompetent patients include pneumonia (4), septic arthritis (5), fungemia (1). Immunocompromised patients at high risk for fusariosis who have prolonged and severe neutropenia and/or severe T cell deficiency (6).

Materials & Methods:

2-year old female patient referred to our dermatology department for painful red lesions on the face, trunk, legs and arms since 3-4 days. She was following by Pediatric hematology and oncology service with a diagnosis of B-cell acute lymphoblastic leukemia (B-ALL). Dermatologic examination revealed; erythematous painful papulonodules on the face, upper back, legs and arms (Figure 1a& Figure 1b). There was no systemic involvement of leukemia. ALL-intercontinental Berlin-Frankfurt-Munster 2009 protocol (ALL-IC BFM 2009) was started. Laboratory tests showed: Wbc:530/mm3, Hb:7.6 g/dl, Plt: 66.000/mm3, Lym: 520/mm3, Neu: 10/mm3. Her family medical history was unremarkable. A punch biopsy was performed from the lesion on upper back and sent for histopathologic examination (Figure 1c).

On histopathological examination, there were fungal hyphae and spores localized in deep dermis and subcutaneous fat tissue (Figure 1c). Gomori's Methenamine Silver staining was positive. Fusarium spp. Spores were detected in peripheral blood smear and thoracic computed tomography scan was performed and showed peripheral ground glass opacification due to fusarium infection.

With clinical manifestations and histopathological and laboratory findings, the diagnosis was consistent with the disseminated fusariosis.

After the diagnosis of disseminated fusariosis, intravenous 8mg/kg/day voriconazole treatment was started. After 3 months lesions were completely regressed. Secondary prophylaxis with variconazole was continued to prevent recurrence.

Results: -

Conclusion:

The most frequent pattern of disseminated fusariosis is a combination of cutaneous lesions and positive blood cultures, involvement at other sites such as sinuses, lungs and different organs can be seen (2). Cutaneous findings usually present with cellulitis as primary infection or may occur as a metastatic infection in patients with

disseminated fusariosis (1).

Patients with localized infection are likely to benefit from surgical debridement. Disseminated infection requires the use of systemic agents and immunotherapy (1). Different fusarium species may have different patterns of antifungal susceptibility. High-dose amphotericin B, voriconazole, posaconazole can be used (2).

Skin lesions are important in the diagnosis of disseminated fusoriasis and are often the only material for laboratory and histopathological examinations. Therefore, fusariasis should be kept in mind in atypical skin lesions seen in immunosuppressed patients, especially in patients with hematologic malignancies.

Unwanted Souvenir: Furuncular Myiasis by Dermatobia hominis

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Introduction & Objectives:

Cutaneous myiasis, a condition characterized by infestation with dipteran larvae on the skin of vertebrate animals, encompasses various entities, including wound myiasis and cutaneous myiasis, with the latter further subdivided into furuncular and migratory forms. Dermatobia hominis is a common causative agent of furuncular cutaneous myiasis, particularly in regions like Central and South America, and in Europe due to cases imported by immigration and travelers.

Materials & Methods:

We present a case of a 43-year-old woman from Peru who presented to the emergency room with furuncular lesions on her ankle after traveling to a tropical area. Despite several attempts at treatment, including antibiotics and corticosteroids, the lesions persisted. A simple diagnostic procedure was performed, sealing the central orifice of the lession with petroleum jelly. After 30 minutes the pretoleum jelly was removed, and mobile brown structure emerged, corresponding to a larva. Surgical enlargement of the wound was needed to extract one larva with forceps, while the second larva was removed after another 24-hour occlusion with petroleum jelly.

Results:

We discuss the challenges in diagnosis and treatment of furuncular myiasis and propose a diagnostic technique involving petroleum jelly occlusion of the exit orifice to promote larval emergence. Additionally, we highlight the importance of early recognition and management of furuncular myiasis to prevent complications and improve patient outcomes.

Conclusion:

In conclusion, furuncular myiasis caused by Dermatobia hominis should be suspected in patients presenting with furuncular lesions, especially those with recent travel to tropical regions. The occlusion of the larval orifice with pretoleum jelly is a simple and effective technique for confirming the diagnosis, leading to prompt treatment and resolution of symptoms.

Bacteriological profile and antimicrobial susceptibility of planter trophic ulcers of leprosy: a cross sectional study from eastern India

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Bacteriological profile and antimicrobial susceptibility of planter trophic ulcers of leprosy: a cross sectional study from eastern India

Introduction & Objectives:

Planter trophic ulcer is a dreadful and serious disability of leprosy. Secondary infection further complicates its outcome. The present study aimed to identify the bacterial pathogens in trophic ulcers of leprosy and to find out the antibiotic susceptibility of aerobic isolates.

Materials & Methods:

An institution based cross sectional study done over a period of three years, from March 2021 to February 2024. After taking permission from institutional ethics committee, all the patients of planter trophic ulcer, attending dermatology OPD of a tertiary care institute were included, with having prior informed consent from them. The ulcer was cleaned with normal salaine, slough was remove and the swab was taken from the deeper part of the ulcer with sterile bacterial loop. For aerobic culture, the material was transported in a sterile test tube and for anaerobic cuture it was sent via Stuart's transport media to microbiology laboratory. For aerobic culture the samples were inoculated in MacConkey agar and nutrient agar. For anaerobic culture the material was inoculated on blood agar with neomycin and immediatelt transferred to gas pack system to maintain anaerobic environment. The final identification was made by appropriate biochemical methods. Antibiotic sensitivity was determined by Kibry Bruer disc diffusion technique and National committee of Clinical Labotary Standards quidelines, for aerobic isolates.

Results:

92 patients of trophic ulcer due to leprosy were studied. All were screened for aerobic isolates and 48 were screened for anaerobic isolates. Amongst the aerobic cultures 84.78% were culture positive. Commonest organism isolated was Staphylococcus *aureus* (32.6%), followed by *Pseudomonas aerugenosa* (19.56%), Proteus *mirabilis* (11.95%), Escherischia *coli* (10.86%), *klebsiella spp* (7.6%). Mixed growth was noted in 15.38% cases. Aerobic isolates were mostly sensitive to amikacin (93.58%) and linezolid (89.74%). Maximum overall resistance were observed with co-trimoxazole (58.97%) and co-amoxiclav (52.56%). Amongst the anaerobic cultures (n=48), 21 were culture positive. Commonest organism identified was *Peptococcus spp* 9(18.75%), *Peptostreptococcus spp* 5 (10.41%), *Bacteroides spp* 4 (8.33%). Mixed anaerobic growths were noted in 8.33% cases.

Conclusion:

Both aerobic and anaerobic bacterial infection is quite common in trophic ulcers of leprosy. Commonest aerobic and anaerobic organism were *Staphylococcus aureus* and *peptococcus spp* respectively. Aerobic isolates were mostly sensitive to amikacin and linezolid and resistant to cotrimoxazole and co-amoxiclav.

Botryomycosis and Mycetoma: a real diagnostic challenge

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Introduction & Objectives:

Botryomycosis is a rare chronic granulomatous bacterial infection pertaining to skin and sometimes other organs. Cutaneous botryomycosis is the most frequent form and can affect various parts of the body, including lower extremities. Mycetoma is a chronic granulomatous infection caused mostly by bacteria or mycobacteria and secondary by fungi affecting predominantly lower extremities as well. Both Botryomycosis and Mycetoma have similar manifestations making its diagnosis a challenge. The aim of this study is to describe the manifestations and clinical features of botryomycosis and mycetoma, and to compare and identify the differences between clinical manifestations for an early and correct diagnosis.

Materials & Methods:

A total of 14 patients, 5 with biopsy-confirmed botryomycosis and 9 with biopsy-confirmed mycetoma, were included in the study. The visual elements of the lesions, including size, shape, color of the grains or granules, as well as distribution and location, were documented. Histopathological analysis was performed to confirm the diagnosis.

Results:

Of all 14 patients, lesions were located in lower extremities. Including plantar and dorsal surfaces of the foot, and toes, mainly affecting the hallux. Review of the literature has shown that in botryomycosis, the grains are typically smaller and more regular in shape, with a smooth surface and a homogeneous texture. They are usually white or yellowish in color and can be found in the discharge from the sinus tracts. In contrast, the grains in mycetoma are larger and more irregular in shape, with a rough surface and a heterogeneous texture. They can be black, white, or yellowish in color. Additionally, mycetoma lesions are often painless, while botryomycosis lesions can be painful or tender to the touch. However during our visual analysis comparing both pathologies, showed that they could mimic each other.

Histopathological analysis can further confirm the diagnosis of botryomycosis or mycetoma. In botryomycosis, the histopathology typically shows a granulomatous inflammatory response with the presence of bacterial colonies, while in mycetoma, the histopathology shows the presence of fungal or bacterial grains.

Conclusion:

Botryomycosis can cause ulcers, fistulous path, suppurative nodules, and abscesses, whilst mycetoma manifests initially with small nodules, fistulous paths and abscesses as well. Given that both illnesses exhibit similar characteristics, a prompt and accurate diagnosis is essential for effective treatment. Making differential diagnosis between comparable disorders can difficult the accuracy of diagnosis, which is a major global health problem. Increased awareness of these challenges, leads to appropriate management strategies.

Acrodermatits chronica atrophians: importance of early diagnosis and treatment

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Acrodermatits chronica atrophians: importance of early diagnosis and treatment

Introduction & Objectives:

Lyme borreliosis is a multisystemic disease transmitted by Ixodes ticks, carriers of Borrelia burgdorferi. Acrodermatitis chronica atrophicans (ACA) or Pick-Herxheimer disease is a rare skin manifestation of the late disseminated phase of Lyme disease. We represent a case of ACA in a middle aged woman.

Case report:

A 57-year-old woman with no medical history presented with indurated oedema of the left leg insidiously increasing over the past 18 months, associated with an erythematoviolaceous livedo racemosa. General condition was preserved, skin involvement was asymptomatic, and neurological examination was normal. The anamnesis revealed a passion for camping with no previous perceptible stings.

Biological assessment, arterial and venous echo-doppler of the lower limbs, and a thoraco-abdomino-pelvic CT scan were free of anomalies.

The skin biopsy revealed significant inflammatory infiltrate of the dermis, predominantly pericapillary and interstitial, with neocapillarization. The inflammatory infiltrate is mainly composed of lymphocytes, but also includes plasma cells. A few nerve threads are sometimes sheathed by the infiltrate.

Borrelia Burgdorfer DNA was not detected in the affected tissues, but serologic findings (IgM and IgG) were positive.

The diagnosis of ACA was retained. Our patient received Doxycyline 200mg/day for 28 days with excellent control of disease progression.

Discussion:

ACA is most commonly seen in middle-aged women. Initially, an inflammatory skin condition appears followed by the progressive onset of atrophy and fibrosis. Diagnosis is rarely made in the early inflammatory stage.

Other clinical manifestations may include purple or bluish color of the extremities, and single or multiple juxtaarticular fibrous nodules.

Diagnosis is usually confirmed by serology, with elevated Ig G and sometimes Ig M levels, and histological examination of the skin.

Treatment is based on Doxycyline or 3rd generation cephalosporins. After treatment, the clinical cutaneous response is variable and often incomplete.

Conclusion:

Clinicians should be aware of the features of this underreported disease to ensure rapid diagnosis and early treatment in order to avoid irreversible skin damage.

Concurrent disseminated varicella-zoster virus and deep fungal co-infection in an immunocompromised child

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(Note: This is a report of a rare case; thus, subsections of methods and results were not available.)

Introduction & Objectives:

In immunocompromised patients, both common and opportunistic skin infections can manifest atypically and severely. In this population, Varicella disease, caused by the varicella-zoster virus (VZV), can manifest as severe disseminated infection, characterized by diffuse rash, encephalitis, hepatitis, and pneumonitis. Deep fungal infections are among the opportunistic pathogens that can also emerge, and all these conditions can follow a lifethreatening course. Herein, we present a case of varicella complicated by involvement of multiple internal organs, characterized by diffuse monomorphic crusted hemorrhagic skin lesions across the entire body, along with a concurrent deep fungal co-infection presented by vegetative mass, in an immunocompromised child.

Case report:

A six-year-old male patient with Multisentric Carpotarsal Osteolysis Syndrome (MCTO) was admitted to pediatric intensive care unit with fever, seizure and extensive skin rash for over one week. The patient had arthritis and nephrotic syndrome, as components of MCTO, and was receiving immunosuppressive therapy consists of methotrexate and adalimumab. Dermatological examination revealed numerous monomorphic discrete crusted and eroded reddish purple patches across the trunk, face, ears, and extremities and no active vesiculary lesion. Additionally, a similar reddish-purple toned, firm, sensitive and vegetative mass was identified in the left axillary region. A biopsy was taken from the generalized patches on the body and histopathological examination confirmed the diagnosis of disseminated primary varicella with the findings reflecting viral cytopathic effects, such as dyskeratotic cells and ghost keratinocytes in regressing vesicles, within the keratin layer. Another biopsy taken from the left axillary mass revealed acute-angled septate hyphae, consistent with a deep fungal infection. Since the first day of hospitalization, the patient has been under treatment with acyclovir and empiric broad-spectrum antibiotic and antifungal therapy. No focal fungal infection was detected on skin tissue culture and abdominal, pulmonary, and cranial imaging; however, varicella-associated lung and brain involvement were observed. Blood and lumber punction sample polymerase chain reaction (PCR) was positive for VZV. Meanwhile, the patient's general condition deteriorated and a severe varicella-associated hemophagocytic syndrome developed. Immunomodulatory and supportive therapy were initiated also, but despite all efforts the patient passed away.

Conclusion:

In immunosuppressed patients, skin involvement by multiple infectious agents can clinically occur simultaneously and cause mortality. When suspected, multiple biopsies should be performed. This report emphasizes the importance of recognizing such infections early in an immunocompromised host and therapy targeting multiple agents.

Ecthyma gangrenosum in children: A report of 3 cases

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Introduction & Objectives:

Ecthyma gangrenosum (EG) is a rare cutaneous infection caused by *Pseudomonas aeruginosa*. In infants, it is infrequent and usually presents in septicemic forms. However, it has also been reported in patients with no prior identified medical problems. Herein, we report three cases of EG in children, demonstrating non-septicemic and septicemic manifestations.

Materials & Methods:

Case reports

Case 1: A previously healthy 2-year-old boy with recent varicella zoster infection developed high-grade fever and multiple hemorrhagic bullae, evolving rapidly into ulcers with central blackish necrotic crusts. On admission, he presented with multiple flaccid bullae with central necrotic crusts and erythematous, edematous borders on the abdomen, trunk, and extremities. There were also multiple punched out ulcers with blackish crusts on the neck, trunk, perineum, buttocks and extremities. The patient was irritable and febrile, with posterior cervical and inguinal lymphadenopathies. Lesions were noted to be in various stages of evolution, some occurring within healing varicella lesions.

Case 2: A 3-month-old infant was admitted due to widespread crusted ulcers present for 6 weeks. He was diagnosed with sepsis neonatorum at 2 weeks of life post-herniorrhaphy for bilateral inguinal hernia. At 4 weeks old, he developed meningitis and received antibiotics. At 6 weeks old, he had bilateral endophthalmitis and developed pustules on the scalp and feet which progressed to crusted ulcers, which later on appeared on the face, neck, upper and lower extremities. At 8 weeks old, with the persistence of the cutaneous lesions, he developed intermittent high-grade fever and tachypnea.

Case 3: A previously healthy 4-year-old girl, recently infected with varicella zoster, developed fever and multiple hemorrhagic bullae, rapidly progressing into ulcers with hemorrhagic and central black necrotic crusts on both upper and lower extremities. On examination, she was febrile with few hemorrhagic, flaccid blisters, and multiple ulcers with central necrotic and hemorrhagic crusts with erythematous borders on the upper and lower extremities. Lesions were noted to be in various stages of evolution and were noted to occur in some of the healing varicella lesions.

Results:

Culture of wound discharge in the first case, wound discharge and blood cultures in the second case, and tissue culture in the third case showed growth of *Pseudomonas* species. Histopathologic studies in one patient showed features of septic vasculitis and in another patient showed dense peri-eccrine and endo-eccrine neutrophilic infiltrates. Combination therapy with anti-pseudomonal penicillin and an aminoglycoside gave good results in two of the three cases. One patient expired due to multiple organ system failure despite aggressive antimicrobial therapy.

Conclusion:

Awareness of the distinctive morphology of the cutaneous lesions, bacteriology and histopathological presentation of EG enables early diagnosis, identification of risk factors, aggressive management and prognostication.

Chronic cutaneous ulcers secondary to Mycobacterium chelonae infection in a patient with rheumatoid arthritis: A case report

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Introduction:

Non-tuberculous mycobacteria (NTM) are acid-fast bacilli found in various environments worldwide. They have been documented in soil, water, and dust. Infection with these organisms may present in diverse forms such as pulmonary disease, skin and soft tissue (SST) infection, lymphadenitis, osteomyelitis and disseminated disease. Skin infections caused by nontuberculous mycobacteria are increasing in incidence, and may be associated to trauma, surgery, cosmetic procedures, and immunosuppression. We present the case of a chronically immunosuppressed patient with rheumatoid arthritis in which chronic skin ulcers were reported in association to NTM infection.

Case Report:

We present the case of a female Costa-Rican 67-year-old patient, with known history of diabetes mellitus and rheumatoid arthritis diagnosed more than 30 years back. She was chronically immunosuppressed, utilizing prednisone 5mg BID PO and Methotrexate 12.5mg weekly PO. She presented to the dermatology clinic with lesions on the anterior and posterior aspect of both her legs consisting of erythema, nodules, painful ulcers and scarring with hyperpigmentation. Her primary care physician had attributed the findings to chronic venous insufficiency, and she was being managed with periodic wound care.

Dermatoscopic examination of the nodules revealed a white-yellow background with violaceous structureless areas and dotted vessels. Routine laboratories evidenced no abnormalities. Histopathology reported granulomatous dermatitis with a positive Fite stain, documenting the presence of mycobacteria. A skin culture was subsequently performed and reported positive for Mycobacterium chelonae.

Discussion and Conclusions:

Mycobacterium chelonae is a non-tuberculous mycobacteria (NTM) classified in the rapidly-growing subtype. Skin infection with M.chelonae is apparently more common in immunocompromised patients, such as those with neoplastic diseases, HIV-infection, organ-transplant patients, and those with chronic immunosuppressive medication. Although incidence of this presentation has been reported more frequently in recent years, misdiagnosis is still very common, and a high level of suspicion must be maintained in this group of patients.

Evidence of previous reported cases suggests the presentation of cutaneous infection with this pathogen includes papules, nodules, and superficial ulceration. Extremities are most commonly affected. These findings are comparable with those present in our patient. A high proportion of documented cases also occurred in patients with autoimmune disorders, particularly those with chronic use of corticosteroids. This was also consistent with our case.

Dermatoscopy has become an important aid in the diagnosis of multiple diseases in modern dermatology. Dermatoscopic findings in patients with cutaneous infection with Mycobacterium chelonae or other NTM have not been well described. We document the dermatoscopic characteristics evidenced in our patient, hoping with the

help of future case reports, that common findings may be established and that dermatoscopy can be of further assistance in this diagnosis.

Interplay between Immune Dysregulation and Community Health Status in the Occurrence of Leprosy among Mothers and Children: A Partial Least Squares-Structural Equation Modelling Approach

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Introduction & Objectives: Leprosy poses a significant public health challenge in endemic areas, especially among vulnerable groups like mothers and children. Understanding the interplay between immune dysregulation and community health factors is crucial for combating the disease effectively. This study aims to calculate the magnitude of the effect of immune dysregulation and community health status in the occurrence of leprosy among mothers and children.

Materials & Methods: This is a cross-sectional study. This study collected patient data from mothers and children with leprosy and non-leprosy subjects in endemic and non-endemic areas. This involved the assessment of immune dysregulation, focusing on Th1 (IFNg), Th2 (IL-4), Treg (FoxP3+), and Th17 (IL-17) markers. Additionally, community health status was evaluated through maternal nutrition, household environment, family education, economic status, household smoking habits, village endemicity, presence of BCG scars in children, access to healthcare, and perinatal risk factors. The results were analyzed using SPSS 26.0 and Smart-PLS v.3.2.9 software.

Results: There were 106 subjects included in this study. Path analysis revealed significant effects within the studied factors. The health environment had a significant negative impact on village endemicity (β =-0.294; P<0.001). Leprosy in family was significantly influenced by health environment (β =0.146; P<0.001), family's education (β =-0.289; P<0.001), family's economic (β =-0.237; P<0.001), smoking in family (β =0.191; P<0.001), access to health facility (β =-0.051; P< 0.001), and village endemicity (β =0.305; P<0.001). Additionally, village endemicity (β =0.138; P<0.001), leprosy in the family (β =-0.554; P<0.001), nutrition status of mother (β =0.191; P<0.001), and mother BCG scar (β =-0.149; P<0.001) significantly influenced mother immunity. Subsequently, child immunity was significantly affected by village endemicity (β =-0.148; P<0.001), leprosy in the family (β =-0.280; P<0.001), mother immunity (β =-0.156; P<0.001), child BCG scar (β =-0.021; P<0.001), perinatal risk (β =0.067; P<0.001), and mother leprosy (β =-0.429; P<0.001). Moreover, mother leprosy was significantly influenced by mother immunity (β =-0.208; P<0.001). Last, child leprosy was significantly affected by mother immunity (β =0.441; P<0.001), child immunity (β =-0.374; P<0.001), and mother leprosy (β =-0.165; P<0.001).

Conclusion: This study highlights the intricate interplay between immune dysregulation and community health factors in leprosy occurrence. These findings underscore the need for targeted interventions to address these factors and reduce leprosy prevalence.

B-cell subsets in the cutaneous lesions of tuberculoid, indeterminate, lepromatous leprosy, and reactional states

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Introduction & Objectives:

Leprosy, a chronic infectious disease, involves a complex interaction of immune responses. While extensive research has focused on cellular immunity, the role of B lymphocytes, including B-1 cells, Marginal Zone B cells (MZB), Regulatory B cells (Bregs), and Effector-1 B cells (Be1), remains less elucidated. This study aims to investigate the distribution of these B cell subsets in leprosy skin lesions, contributing to a better understanding of leprosy pathogenesis.

Materials & Methods:

Immunohistochemical and morphometric analyses were performed to examine the presence of B cell subsets in various leprosy subtypes. The following markers were used: CD20 (B cells), MZB1 (MZB, B1 and plasma cells), PAX5/MZB1 (B1 and MZ B cells), PAX5/CD5 (B1 cells), CD20/Tbet (Be1) and CD20/c-Maf (Bregs). For the demonstration of B1 lymphocytes, double staining was also performed with anti-IgM and anti-PAX5 antibodies using the immunofluorescence technique and analysis on a laser confocal microscope.

Results:

B cells predominated in tuberculoid lesions, while MZB-1 expression exhibited heterogeneity among leprosy subtypes. Type 1 Reaction (T1R) lesions showed significantly higher B-1 and MZB cell counts compared to Type 2 Reaction (T2R), lepromatous leprosy (LL), and indeterminate leprosy (I). Interestingly, the expression of PAX5/MZB-1 (B-1 and MZB cells) revealed a pattern very similar to PAX5/CD5 (only B-1 cells), with predominant expression in the Th1 pole. In reactional states, especially T1R, all B cell subsets were present in significantly higher numbers than in other groups. Be1 cells, associated with Th1 response, were markedly present in T1R and the tuberculoid form (TT). Breg lymphocytes were consistently scarce in all groups but were more frequent in T1R. Immunofluorescence staining with laser confocal microscopy confirmed the substantial presence of B1 cells in T1R.

Conclusion:

B lymphocytes were more abundant in the tuberculoid pole compared to lepromatous leprosy. MZB-1 expression varied among different leprosy subtypes, with tuberculoid leprosy showing higher levels compared to the indeterminate form and lepromatous leprosy. Type 1 reactions exhibited increased numbers of all lymphocyte subtypes, including B-1 and MZB cells. Effector B lymphocytes were more prevalent in tuberculoid leprosy lesions and type 1 reactions, potentially associated with the Th1 profile response. Although regulatory B lymphocytes were scarce overall, they were relatively more abundant in type 1 reactions, indicating a potential immunosuppressive or immunoregulatory role in leprosy. These findings shed light on the complex interaction between B lymphocyte subsets and the immune response in leprosy, paving the way for further research into its immunopathogenesis.

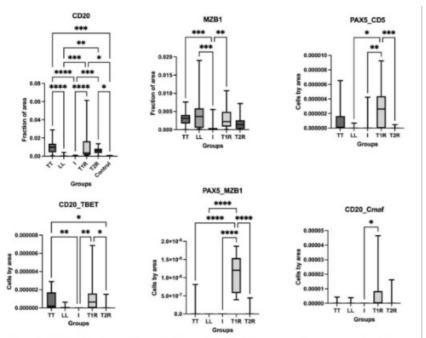


Figure 1 - Medians for all groups in graphical form, along with their corresponding measures of central dispersion. The asterisks indicate statistically significant post-hoc comparisons. LT: tuberculoid leprosy; I: indeterminate leprosy; LL: Lepromatous leprosy; T2R – Type 2 leprosy reaction; T1R – Type 1 leprosy reaction.

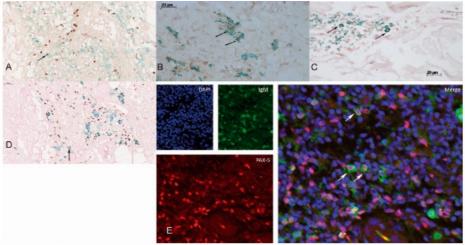


Figure 2 - B1 cells (PAX5+/CD5+) in tuberculoid leprosy (A); Be1 cell (CD20+/Tbe1+) in type 1 reaction (B); Breg cell (CD20+/c-MAF+) in type 1 reaction (C); B1 and MZB cells (PAX5+/MZB1+) in tuberculoid leprosy (D); B1 cell (PAX5+/IgM+) in laser confocal microscopy in type 1 reaction (E). Arrows indicate the respective cells.

adult varicella with a primary localisation on the face and with systemic manifestations

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Introduction & Objectives: Adult varicella is a rarer occurrence that is usually more severe and can be lifethreatening. It is caused by infection with herpesvirus type 3 and usually begins as itchy erythematous papules progressing to vesicles. The objective of the presentation is to report a clinical case of disseminated adult varicella with a primary localization on the face and with systemic complications affecting the liver and kidneys. The patient improved markedly after treatment.

Materials & Methods: A 35 year old male was admitted to the clinic of Dermatology and Venereology complaining of an itchy rash which started a few days before admission on the face and then spread to the whole body. The patient reported that it started after he took Nurofen for a "cold" with an elevated temperature. The patient revealed that his son had varicella 1 month ago. Routine blood laboratory tests and a biopsy were performed. Furthermore, immunological tests were done with a plasma VZV-DNA PCR test and VZV-DNA test from a lesional biopsy sample. The following differential diagnosis were discussed: AGEP, Sweet syndrome, Eruptio Varicelliformis Kaposi and Pemphigus foliaceus.

Results: The physical exam showed disseminated papules and pustules in parts covered with purulent squames and yellow crusts. The routine laboratory findings showed abnormal findings including elevated ALAT, ASAT, GGT, Creatinine, Urea and CRP as shown in the table. The levels of Sodium were reduced. Moreover, proteinuria and hematuria were also observed. The immunological investigations showed that in the plasma there were 26 026 copies/ml VZV-DNA (PCR test) and the result from the lesional biopsy showed 2 900 898 copies/ml VZV-DNA, which according to the virologists at the hospital was a sure sign of varicella zoster infection. The histopathological investigation revealed acantholysis which is a typical feature of varicella. The diagnosis of varicella was confirmed based on the physical presentation, immunological investigations and the histology result.

Conclusion: Varicella in adults can cause severe systemic manifestations affecting the liver and kidneys. This is shown by the abnormal liver and kidney function tests. Following treatment, the physical manifestations were reduced and the laboratory findings improved greatly. In addition, there was no hematuria and proteinuria observed on day 7. After discharge, the patient was referred to the clinic of nephrology and to a gastroenterologist for further management.

A Clinico-mycological, immunological and aerobiological study of resistant/recalcitrant dermatophytosis in adults in a tertiary care centre

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Introduction & Objectives:

Dermatophytosis has become a menace in tropical countries. The alarming rise in the incidence is only one part of the problem; changing clinical picture of dermatophytosis, varying presentations, dermatophytosis affecting children, old age, lactating mothers, inadequate response to antifungals and irrational use of over the counter preparations containing immunomodulators, are some of the other issues being faced across the country.

The increasing incidence of dermatophytosis across the country, demands a surge

in research on dermatophytosis as well.

Aim- To study the clinical and mycological profile of patients with dermatophytoses of more than 3 months duration and test the immunological response to trichophytin antigen and aero-biological collection of fomite from houses of patients with chronic dermatophytosis.

Objective - to study the epidemiology of chronic dermatophytoses

To find out the common fungal isolates associated with dermatophytoses

To find the find the efficacy of vinyl tape method for direct microscopy

To find susceptibility of fungal isolates to luliconazole, itraconazole, terbinafine, fluconazole, clotrimazole, ketoconazole

Trichophytin test in dermatophytosis

Air and fomite sampling in household of inmates with chronic dermatophytosis

Materials & Methods:

patients of dermatophytosis of more than 3 months aged above 18 years, a detailed history and examination was conducted in a predesigned proforma, vinyl tape method was used for direct microscopy and scales were collected or culture on SDA media for isolation and antifungal susceptibility test using broth microdilution method following M38-A guidelines for 6 drugs. Trichophytin test was performed using prick test technique with T. rubrum antigen and T mentagrophytes antigen with negative and positive control in 60 patients

Results:

A total of 371 patients were included, 232 males and 139 females with more than 50% of patients aged between 18-35 years. Maximum duration of disease being 6 years with median duration of 1 and a half year. 40.4% patients gave history of using over the counter preparations and more than 47.4% had more 10% body surface area involvement. Vinyl tape could demonstrate fungal elements in 85.2% cases versus culture positive in 75.7%. Maximum patients showed growth of Trichophyton rubrum (TR) (47.2%) followed by Trichophyton

mentagrophytes (TM) in 28.6% patients. Luliconazole followed by terbinafine, itraconaole had lowest MIC value for both TR and TM. Fluconazole was least effective. All the samples collected in air and fomite study showed aspergillus and mould growth. Trichophytin test revealed 80% positivity in patients who showed positive culture with T. rubrum, IgE response might be the reason behind the persistence of the T. rubrum infection.

Conclusion:

- Males aged between 18-35 years are more prone to develop dermatophytosis
- TR is most common followed by TM
- Vinyl tape is a valuable non-invasive direct microscopy technique with sensitivity of 85%
- Luliconazole >terbinafine >itraconazle are effective against TR and TM
- Fluconazole is least effective against both TR and TM
- T. rubrum mounts more stronger reaction to prick test as compared to metagrophytes which might be a reason for persistence of t. rubrum infection

Using Wood's lamp in scabies: a new diagnostic approach

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Introduction & Objectives:

Scabies is a skin infestation caused by the mite *Sarcoptes scabiei variety hominis*. In our country there has recently been an increase in its incidence, as well as a rise of atypical presentations and therapeutic failures.

Materials & Methods:

Case report and literature review.

Results:

Diagnosis of scabies is usually made based on the appearance and distribution of the rash and the presence of burrows. However, it is not always possible to visualize burrows, both due to the low number of grooves and their masking, which is often caused by excoriation. Traditionally, microscopic examination has been used to confirm the diagnosis, by identifying the mite, mite eggs, or mite fecal matter (scybala). Nevertheless, optical microscopes are not always available. New diagnostic techniques with high specificity are currently emerging, their main drawback being a high price and, therefore, lack of accessibility. Thus, we propose Wood's lamp as a non-invasive, risk-free, fast and cheap diagnostic alternative. The use of Wood's light in patients with suspected scabies could improve the efficiency of the physical examination and therefore lead to a more accurate diagnosis.

Conclusion:

The unusually large outbreaks of scabies across Europe put in evidence the need to improve both its diagnosis and treatment. Even though diagnosis of the infestation is mainly reliant on clinial examination, Wood's light could aid in the diagnosis, especially in doubtful or paucisymptomatic forms.

Old but gold: two misrecognized infectious diseases presenting as pyoderma gangrenosum-like ulcers

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13 Old but gold: two misrecognized infectious diseases presenting as pyoderma gangrenosum-like ulcers

Introduction & Objectives:

Pyoderma gangrenosum (PG) is a rare neutrophilic dermatosis characterized by painful, cutaneous ulcers with undermined, irregular, erythematous-violaceous edges.

PG remains one of the most challenging dermatological diagnosis, owing to its variable presentation, presence of several clinical mimickers and absence of defining histopathological findings. Unsurprisingly, diagnostic delays and misdiagnoses are common.

The diagnostic workup of PG typically includes a biopsy for histological examination. Additional staining of the sample may be required to rule out bacterial and fungal infections and tissue may be obtained for cultures as deep fungal infections, syphilis, leishmaniasis and mycobacterial infections can clinically mimic PG.

Materials & Methods:

We describe two paradigmatic cases of lupus vorax and cutaneous leishmaniasis both presenting with features recalling PG ulcerations.

Results:

\1) A 30-year-old patient with Noonan Syndrome was referred to our clinic with a suspicion of PG. He presented with 2-year-lasting ulcerative lesions of the face, denying systemic symptoms.

Cutaneous examination showed deep ulcerations with undermined edges on his cheeks and nose, recalling PG. Histopathological assessment revealed granulomatous inflammation with multinucleated giant cells, suggesting PG or granulomatosis with polyangiitis. Further investigations did not support the diagnosis of granulomatosis with polyangiitis. Unfortunately, the patient was lost to follow-up and returned six months later after cutaneous lesions worsening. A second biopsy was performed and tissue cultures were obtained. On histology caseating granulomas consistent with cutaneous tuberculosis and acid-fast bacilli were identified with Ziehl-Neelsen staining confirming the diagnosis of lupus vorax. The ulcerative lesions successfully resolved after systemic treatment with Isoniazid, Rifampicin, Pyrazinamide and Ethambutol.

\2) A 64-year-old man presented with a 1-year-history of ulcers on the right thigh unsuccessfully treated with a regimen of prednisone 0.75 mg/kg/day based on histological diagnosis of PG. He was also under treatment with Adalimumab for psoriatic arthritis. Physical examination revealed three deep ulcers with a purulent bed and undermined erythematous-violaceous edges. Histology showed a dense granulomatous infiltration consisting of histiocytes, lymphocytes and plasma cells. In the subepidermal site numerous intra- and extracellular Leishmanias were observed with Giemsa staining, confirming the diagnosis of cutaneous leishmaniosis. Complete remission of

the lesions was obtained with systemic Miltefosine.

Conclusion:

We report two rare cases of lupus vorax and cutaneous leishmaniasis initially misdiagnosed as pyoderma gangrenosum, highlighting the importance of thorough clinical evaluation and consideration of uncommon etiologies in dermatological practice. Appropriate treatment led to successful resolution of the cutaneous lesions and improved the quality of life of the patients. These cases underscored the adage "old but gold" in clinical medicine, emphasizing the significance of revisiting classic diseases in the era of evolving medical knowledge and technology.

Actinomycosis on the dorsum of the hand

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Introduction & Objectives:

Actinomycosis is a rare bacterial infection characterized by the formation of suppurative abscesses, granulomatous inflammation and sinus tract formation. The most common causative agent is *Actinomyces israelii*, a gram-positive filamentous non-acid-fast anaerobic to microaerophilic bacteria. Among the five forms of actinomycosis that have been described, the primary cutaneous form is the most uncommon and represents a diagnostic challenge.

Materials & Methods:

Case report and literature review.

Results:

A 77-year-old man presented to the dermatology clinic with a 4 cm non-indurated violaceous plaque with focal areas of crust on the dorsum of his right hand that had been present for 3 months. A skin biopsy was performed, which only revealed pseudoepitheliomatous hyperplasia, and cultures did not exhibit bacterial growth. In a second incisional biopsy an abscessed area was observed, which contained basophilic aggregates of microbial flora showing a filamentous pattern, suggestive of actinomyces. Guided cultures were then taken, isolating *Actinomyces israelii*. The magnetic resonance imaging (MRI) showed subcutaneous soft- tissue involvement without extension to deeper layers. Therefore, antibiotic treatment alone was initiated with 2 months of intravenous ceftriaxone followed by 12 months of oral amoxicillin.

Conclusion:

Actinomyces israelii is a commensal organism that normally colonizes the oral cavity, so primary cutaneous actinomycosis is rare due to the exclusively endogenous habitat of the microorganism. It should be considered in patients presenting with suppurative plaques or nodules. Diagnosis can be difficult, as isolation of the microorganism requires prolonged bacterial culture under anaerobic conditions. Differential diagnosis includes other bacterial infections such as actinomycetoma due to *Nocardia*, mycobacterial infections, deep dermatophytosis and even malignant neoplasms. In our case, microbial cultures and histopathology allowed the diagnosis and complete clinical resolution was achieved 6 months after initiating antibiotic therapy.

Resistance towards permethrin treatment for scabies

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Introduction & Objectives:

A rising resistance towards permethrin treatment for scabies was reported worldwide, along with a growing incidence of scabies.

This study aimed to evaluate prevalence and severity of scabies among dermatological pediatric patients, characterize patients' features and assess resistance to first-line therapy with permethrin 5%.

Materials & Methods:

Patients (0-18 years) undergoing general dermatological examination (July 22- February 23) were analyzed clinically and dermoscopically to assess scabies. Diagnosis was established at dermoscopical observation of the pathognomonic airplane sign, in addition to skin burrows, scratch marks, pruritic papules, scabietic nodules at typical body sites at clinical examination, following 2020 Consensus Criteria from International Alliance for the Control of Scabies.

Infestations were divided into three severity categories: mild (only hands and feet involved), moderate (also another body area), severe (≥three body areas involved, or nodular lesions).

In light of the growing resistance towards topical permethrin, patients that were three months of age (use off label) and older were treated with an intermittent course of topical benzoate 20%.

Results:

Overall, 3041 patients undergoing general skin examination were included: 335 (11%) presented scabies (173 males, 162 females; mean age 5.9 years; 57% severe-, 33% moderate-, 11% mild scabies)

Of 335, 151 cases (45%) were correctly referred for suspect scabies. Among these, 112 had a recent history of scabies and 97 reported previous permethrin 5% cream treatment, implying 87% of resistance.

Of 335, 94% presented pruritus, meanly from 2.5 months prior to the visit, generalized in 86% of patients, localized to hands, feet or abdomen in 14%. Family members (meanly 4.5 for every patients) of 154 patients (46%) reported pruritus. Of patients, 83% lived in popular districts, 9% in middle class districts, 6% in rural areas, 3% in a residential district.

Conclusion:

In Western Europe the highest prevalence of scabies is retrieved among disadvantaged populations, living in crowded housings and closed communities as a result of prolonged skin-to skin contact and contact with infested beddings. Other scabies-facilitating factors are the high costs of therapy.

The present study confirms this trend: 83% of patients with scabies lived in popular districts, with a mean of 4.5 family components each. Infestations were mainly severe (57%), bearing high parasitic load, facilitating disease transmission, with diffuse pruritus (86%), yet ongoing meanly from \geq eight weeks before seeking medical advice.

Also, the presently studied population was pediatric (mean age 5.9 years): school settings facilitate disease transmission through high population concentration.

Interestingly, 87% of resistance towards topical permethrin 5% was registered. The development of resistance towards first-line topical treatments represents an emerging issue possibly leading to further disease outbreaks and needs to be addressed promptly.

Lower leg cellulitis- review of 72 patients

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Introduction & Objectives:

Cellulitis is an acute inflammatory disease of the skin and subcutaneous tissue. It can affect any region of the body. Cellulitis of the lower extremities is the most common, accounting for 88% of all cellulitis cases. The development and course of cellulitis is influenced by numerous local and systemic factors, as well as type of infectious agent.

Materials & Methods:

A retrospective study of 72 hospitalized patients at our Clinic, with lower leg cellulitis, for three-year period, was conducted. Demographic (sex, age) and clinical (type of cellulitis, recurrences) characteristics were used for each patient, and existing comorbidities, local and systemic risk factors for the development of cellulitis, were examined.

Results:

The average age of patients was 62.6±14.1 years There was an equal incidence of cellulitis among men and women (36 patients, 50%). Uncomplicated cellulitis was the most common form, in 54 (75%) of patients. Recurrent cellulitis was recorded in 27 (37.5%) patients. A statistically significant association of onychomycosis and chronic respiratory diseases (p=0.014 and p=0.038, respectively) in recurrent cellulitis was shown. The most common isolated pathogen was *Staphylococcus aureus* (41.7%). The most frequently used antibiotics were lincosamides (52.8%), fluoroquinolones (50%) and penicillin (38.9%). The most common complication of the treatment itself was toxic-allergic exanthema, recorded in 13 (18.1%) patients.

Conclusion:

The frequency of recurrent cellulitis is higher with age. Beside adequate antibiotics, treatment and prevention require reducing possible risk factors, to diminish the incidence of cellulitis, recurrent cellulitis and complications.

Chronic erythema migrans

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A case of chronic erythema migrans lasting several years

Character limit:

Introduction & Objectives:

Lyme disease is still reasonably uncommon in the UK with around 1500 cases of serologically diagnosed cases of Lyme disease a year and 1000-2000 clinically diagnosed cases a year. Lyme disease is the caused by infection with Borrelia burgdorferi, this is transmitted by the Ixodes scapularis or Ixodes pacificus tick. Lyme disease is the clinical syndrome/sequelae caused by the infection and can be diagnosed clinically though cutaneous findings and or by serological testing. Serum testing may only show positivity a few months after infection. The majority of Lyme borreliosis (80%) cases present with skin manifestations (dermatoborrelioses) such as erythema migrans, recognising this is key in diagnosing and treating Lyme disease. Typically, erythema migrans tends to last for a few weeks only. We present a case of suspected erythema migrans lasting for over three years. There are only a few case reports of this rash lasting for such an extended period.

Materials & Methods:

A 60 year old male presented to the dermatology department with a defuse erythematous rash to his right anterior thigh. The patient reported an insect bite 3 years ago followed by annular lesion in this area which mostly resolved. Some residual erythema remained, the erythema started to expand from the initial area on his right thigh to involve the entire right thigh and extend onto the abdomen. Following positive Borrelia serology, treatment for Lyme disease was started. The erythema settled entirely after 3 weeks of Doxycycline 100mg orally twice daily.

Results:

Full blood count, liver function, renal function, thyroid function, inflammatory markers, connective tissue screen and a vasculitic screen were unremarkable. Lyme serology showed a positive IgG and a weakly reactive IgM. Biopsy from the right thigh showed a relatively normal epidermis. There is a light, tightly perivascular chronic inflammatory cell infiltate in the dermis and subcutis, with dermal oedema. The infiltate comprised mostly of lymphocytes and plasma cells which was supportive of a diagnosis of Lyme disease.

Conclusion:

This case shows an atypical presentation of erythema migrans. It is important to consider erythema migrans in cases of atypical erythematous unilateral rashes especially in areas where Lyme. Testing is non invasive and response to treatment is often rapid with minimal side effects and the potential consequences of not treating are catastrophic.

"Moriform stomatitis: infectious or malignant? Leishmaniasis, an infrequent presentation".

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Introduction & Objectives:

Leishmaniasis is one of the five endemic parasitic diseases of greatest importance according to the world health organization. In Colombia, this disease is considered endemic. However, the prevalence of mucocutaneous and visceral leishmaniasis reaches 0.26 cases per 100,000 inhabitants. Mucosal and visceral involvement are infrequent, being more common in immunosuppressed patients. In rare cases, lesions can appear without leaving traces on the skin. This disease can mimic other infectious diseases and malignancies. The delay in diagnosis, especially in visceral cases, may become fatal.

Materials & Methods:

We present the case of a 38-year-old man, HIV negative, who presented a 2-year history of superficial ulcers in the upper lip and redundant granulation tissue in the palate with a moriform appearance, with extension to pharynx and larynx, associated with fever, pain, bleeding, dysphagia, hoarseness, wet cough, nocturnal diaphoresis, cervical adenopathy and weight loss of 20 kg in a year. Tomography showed obstruction of the airway in 90%.

Results:

Potassium hydroxide (KOH), direct smears and cultures of the lesions were negative, mucosal biopsy reported a mixed inflammatory infiltrate, with granuloma formation. The diagnostic confirmation was made with polymerase chain reaction (PCR) positive for leishmaniasis in oral tissue confirming mucocutaneous and visceral leishmaniasis. Treatment was given with amphotericin B presenting resolution of the disease with excellent response.

Conclusion:

Moriform stomatitis is an unusual clinical presentation of leishmaniasis with multiple differential diagnoses, including paracoccidioidomycosis, histoplasmosis and malignant tumors as lymphomas. One must rule out infectious and non-infectious etiologies. This case represents the importance of correct diagnosis and guided treatment.

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New marker of recurrent Hansen's disease? Recurrent Erythema Nodosum Leprosum in a leprosy endemic country

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Introduction & Objectives:

Leprosy is a chronic infectious disease caused by the acid-fast bacillus Mycobacterium leprae, an obligate intracellular pathogen that resides in skin macrophages and Schwann cells of the peripheral nerves. It induces a variety of neurocutaneous manifestations that are closely tied to the host's immune response. With an incidence of over 200,000 new infections annually worldwide, leprosy remains an endemic disease that can lead to permanent sequelae in cases that are either undiagnosed or inadequately treated. Erythema nodosum leprosum (ENL), a painful inflammatory complication, occurs in 24-50% of patients with lepromatous leprosy and is a significant cause of morbidity and mortality. Here, we discuss a distinct case of ENL resistant to standard treatment, prompting the consideration of a recurrence in a patient previously treated for lepromatous leprosy.

Results:

We report the case of a 30-year-old female patient, she was diagnosed with lepromatous leprosy two years ago. She underwent treatment with the standard Colombian regimen of Polychemotherapy, which includes clofazimine, rifampicin, and dapsone. However, she developed hemolytic anemia attributed to dapsone. This condition necessitated discontinuation of dapsone, and a switch to moxifloxacin, with which she completed one year of treatment. This sequence of events took place one year prior to the current consultation.

A patient consulted for a clinical condition that had progressed over 7 months, marked by the development of painful nodules on the extremities. The symptoms had worsened in the last two months, accompanied by febrile peaks, myalgia, and dysesthesia of the upper limbs. Based on a suspicion of Erythema Nodosum Leprosum (ENL), initial treatment included prednisolone and thalidomide. The physical examination revealed bilateral madarosis, bimalar erythema, and multiple painful erythematous nodules ranging from 0.5 to 1 cm in diameter on the legs, malleoli, thighs, and forearms; there was also bilateral palpable and painful ulnar nerve enlargement, violaceous macules on the lower limbs, and hypoesthesia in the lower limbs akin to a "short boot" pattern. Protocol review of the last smears from these sites, due to ENL suspicion, showed a progressive increase in their values.

Consequently, the dose of thalidomide was increased for one year until ENL resolution, while the prednisolone was maintained for 3 months with a decreasing dose, albeit without response. A biopsy of a nodule showed septal panniculitis, and Ziehl-Neelsen staining revealed multiple acid-fast bacilli within the cytoplasm of foamy and extracellular histiocytes. These findings led to a diagnosis of recurrent lepromatous leprosy. Treatment was initiated with Rifampicin, clofazimine, and moxifloxacin, leading to the total disappearance of lesions and negative smear tests. Due to the recurrence, therapy continuously for two years.

Conclusion:

In our case, clinical features, in addition to histopathological findings, confirm the recurrence. This constitutes the first report of chronic, recurrent Erythema Nodosum Leprosum with biopsies showing complete Acid-Fast Bacilli, which responded successfully to the reinitiation of Therapy. We suggest that recurrent and/or chronic ENL be considered a new indicator of relapsing lepromatous leprosy in patients presenting with similar clinical features,

aimed at reducing the risk of sequelae that could arise from a delayed or incorrect diagnosis.

Varicella zoster infection in childhood cancer patients: outcome and complications

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Introduction & Objectives: Primary varicella-zoster virus (VZV) infection is a benign self-limited disease in healthy individuals, but cancer patients are at particularly higher risk of complications due to malignancy itself or to the drugs used to treat it. In this case series, we review the outcome of VZV infection in childhood cancer patients.

Materials & Methods: Children with cancer undergoing treatment at a tertiary care centre, who were diagnosed with varicella zoster infection were included in this series. The records of their demographic profile, type of cancer, its treatment details were recorded. They were treated with either oral or IV acyclovir depending upon the severity, were monitored for appearance of new vesicles, time to crust formation, complete recovery and complications.

Results: Over a 6-month period, a total of 16 children with cancer (15 patients with acute leukemia, 1 with Ewing sarcoma) were diagnosed with primary VZV infection. Out of them, 11 patients were treated with oral acyclovir while 4 patients were treated with intravenous acyclovir for a median of 7 days (range 7-14days). Twelve patients recovered well within 5-10 days while 4 patients developed varicella related complication. Out of them, 3 patients developed a secondary HLH (hemophagocytic lymphohistiocytosis), while 1 patient developed herpes zoster after 1 month of primary infection with VZV.

Conclusion: Childhood cancer patients are at risk of developing serious infection due to VZV. Prompt diagnosis and treatment with Acyclovir results in cure in most of these patients. Secondary HLH is a rare but serious complication of VZV.

A Comparative study of Psidium guajava (Guava) Leaf Extract wash versus Chlorhexidine gluconate 4% wash on the inhibition of growth of Staphylococcus aureus among Healthy Filipino volunteers

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Introduction & Objectives:

The human skin is home to millions of organisms which are referred to as skin microbiota. However, an imbalance in the proportion of normal skin flora to pathogenic organisms, also known as "dysbiosis" results in the progression of cutaneous diseases. Among these commensal and pathogenic organisms, the most abundant is **Staphylococcus Aureus.** Many countries have a long history of using *Guava* for medicinal purposes and in the Philippines it is a custom to use Guava Leaf extract as a topical home remedy to treat various superficial cutaneous bacterial infections. This study is a randomized control clinical trial that aims to compare the efficacy of *Psidium guajava (Guava)* Leaf Extract wash versus Chlorhexidine-alcohol wash on the inhibition of growth of Staphylococcus aureus. This study aims to compare the efficacy of 20% Psidium guajava (Guava) Leaf Extract wash with 4% Chlorhexidine alcohol wash as an antibacterial for Staphylococcus aureus.

Materials & Methods:

This study utilized a prospective, randomized controlled clinical trial. One hundred ninety-six (196) healthy adult volunteers were randomly recruited at the Dermatology Outpatient Department Research Institute for Tropical Medicine (RITM) Hospital on the same day the study was conducted. All volunteers were randomized and divided into 2 treatment groups (Psidium Guajava wash vs. Chlorhexidine gluconate).

Baseline specimen collection was done through swabbing testing site (hands) with a moistened cotton pledget. The subjects were then asked to do a 6-step technique (recommended by the World Health Organization) of hand washing for 20-30 seconds using the randomly assigned wash. Immediately after air-drying, post-intervention specimen collection was again done. The collected specimens were cultured in Mannitol Salt Agar (MSA) plates. Incubation, identification of isolated organisms and reading of bacterial colony counts were carried out by an independent medical technologist.

Results:

The result of our study demonstrated the effectiveness of Chlorhexidine gluconate 4% wash in markedly decreasing bacterial colonies in the skin. Furthermore there was a substantial reduction in Staphylococcus aureus colonies using the Psidium Guajava wash compared to Chlorhexidine gluconate solution.**

Conclusion:

The significant decrease in Staphylococcus aureus colonies using the Psidium Guajava wash compared to Chlorhexidine gluconate solution highly suggests that Psidium guajava Leaf Extract wash is more efficacious in reducing bacterial colonies compared to Chlorhexidine gluconate 4% wash.

Successful treatment of cutaneous leishmaniasis with immunocryosurgery after failure of imiquimod monotherapy

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Introduction & Objectives:

Cutaneous leishmaniasis is a parasitic infection, the treatment of which is a challenge due to drug toxicity, frequent relapses and the development of a disfiguring scar. Herein, we present a case of cutaneous leishmaniasis, which was successfully treated with a modified immunocryosurgery protocol.

Materials & Methods:

A 46-year-old male Caucasian presented with 2 nodules on the frontal area of 8 months duration. He reported an unsuccessful attempt to treat the lesions with a session of cryosurgery elsewhere. During the clinical examination, two adjacent hard nodules, mobile, that did not infiltrate the underlying tissues were notable. Their diameter was 10mm and 15mm respectively. The patient was in good general condition, afebrile and the clinical examination did not reveal any palpable lymph nodes or enlarged liver or spleen. The histopathological examination of the lesion revealed intra-cytoplasmic organisms morphologically suggestive of leishmanial amastigotes. In examination of the sample with polymerase chain reaction, DNA of the pathogen *Leishmania infantum* was identified. Abdominal ultrasound as well as an extensive laboratory work-up were unremarkable for systemic leishmaniasis. The constellation of the clinical and laboratory findings set the diagnosis of *L. infantum* skin leishmaniasis.

Results:

Therapy with application of 5% imiquimod cream 3 times per week was initiated. After 7 weeks on this scheme there was a strong local inflammatory reaction, but without evidence of clinical resolution of the lesions. Treatment was paused and 5 weeks later the two nodules had merged into a single lesion measuring 40x25mm. Treatment with 5% imiquimod cream 3 times per week was reinstated under the plan to combine it with cryosurgery sessions (modified immunocryosurgery protocol). The patient was treated in total of 9 weeks with topical imiquimod t.i.w. and cryosurgery sessions (open spray liquid nitrogen, 2 cycles, 15 sec each) at weeks 3 and 6. At the end of the treatment there was clinical remission of the lesion leaving an atrophic scar that improves with time.

Conclusion:

The applied modification of the standard immunocryosurgery protocol achieved treatment of a*L. infantum* cutaneous leishmaniasis that was refractory to the respective monotherapies.

Effectiveness of individual psychotherapy and family counseling in decreasing the stigma, strengthening the resilience and family functions of patients with Leprosy in tertiary hospitals: A randomized controlled open-label clinical trial

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Introduction & Objectives:

Hansen's disease is one of the most stigmatized skin disorders. Existing leprosy programs are focused on disease surveillance and treatment rather than stigma. This study aims to see the effectiveness of individual psychotherapy with or without family counseling in comparison to a no intervention group in decreasing the stigma, increasing the resilience and strengthening family support and functions of leprosy patients.

Materials & Methods:

The study included 5 online sessions within an 8 week period of individual psychotherapy with or without family counseling. This study utilized pre and post-test intervention tools: (1) SARI assessment tool for measuring perceived stigma; (2) the CD-RISC-25 for measuring the affected individual's resilience; and the (3) APGAR family tool to assess family support and function. There were three treatment arms: 1- no intervention, 2-individual psychotherapy and 3- individual psychotherapy and family intervention.

Results:

A total of 23 leprosy patients were able to complete the study (8 in the control group, 8 in the individual psychotherapy and 7 in the family counseling in addition to individual psychotherapy. There was a decline in the level of stigma across all groups, but not significantly. Patients who received psychotherapy alone showed a significantly higher CD-RISC25 score (p=0.037), indicating a stronger level of resilience after the intervention. Moreover, patients in the no intervention group reported feeling less resilient as shown in their CD-RISC25 scores. Finally, there is a significant increase in APGAR scores after the intervention period in the control group.

Conclusion:

This pilot study suggested that individual psychotherapy significantly increased the resilience of leprosy patients through education, promotion of positive thinking, change-adaptation techniques, and spiritual exploration. Moreover, individual psychotherapy with or without family counseling has the potential to decrease the stigma, increase the resilience and enhance family support and function of leprosy patients.

Unravelling the cutaneous crypt in a healthy female

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Introduction & Objectives:

Cryptococcus neoformans is a ubiquitous encapsulated yeast like fungus with a predilection for the central nervous system but are also known for their dermatographism. It is generally thought of as an opportunistic infection in those with AIDS, chronic steroid use, genetic defects, haematological malignancies, and transplant recipients. We present a case of cutaneous cryptococcosis with ?cryptococcal meningitis in an immunocompetent individual, where absolutely no identifiable risk factor is present.

Materials & Methods:

A 35 year old female, home maker by occupation came with complaints of asymptomatic wound over lower abdomen, extremities since 3 months .The skin lesions started initially as a boil over abdomen which then grew slowly over few days to form a swelling and in next 2-3 weeks wound was formed out of the swelling. She complained of watery to pus filled discharge from the wound since 1 month. No history of trauma prior to the onset of lesions. No history of weight loss or loss of appetite. She had no prior history of a rash, injection drug use, immunosuppressive medications, or steroids. She had an unremarkable travel history and had no history of recurrent bacterial, fungal, or viral illness. Not a known case of any systemic comorbidities.

Patient gives history of fever since 5 days, associated with headache and neck pain. No history of vomiting, blurring of vision.

On examination – 7 exophytic ulcers of varying sizes, oval in shape present over right side of the flank (3) and right lower limb (3) and 1 over left upper limb. The largest ulcer measured 5 X 4 cm and the smallest measured 3X2 cm. The ulcers had a sloping to undermined edge covered with black colored crust. On removal of the crust there was slough with unhealthy granulation tissue and seropurulent discharge. The base of the ulcer had mild induration.

With the above history and clinical findings, a differential diagnosis of Cutaneous TB, Sporotrichosis, Chromoblastomycosis, bacillary angiomatosis were thought of.

Following investigations were done – Hb-8.8, TLC-10400, ESR -78, RFT & LFT within normal limits, Serology negative. BIOPSY showed stratified squamous epithelium with focal ulceration and congestion, suppurative inflammation in the deep dermis with neutrophils and foamy macrophages with lot of mucoid colonies containing capsulated yeast cells. AFB stain – negative, Mucicarmine stain – pink staining organisms seen, Fontana Mason stain – positive with black colored yeast cells. KOH and ZN stain from discharge was negative. A touch smear from discharge showed positive for India Ink negative stain. CSF cryptococcal antigen – positive and CSF CBNAAT-negative. CSF Fungal culture is sent, report is awaited.

Results:

Hence patient was diagnoised as Cutaneous Cryptococcosis with Cryptococcal meningitis and is treated with Injection Liposomal Amphotericin B 3mg/kg/day infusion for 2 weeks with Fluconazole 400mg per day. Patient is still under follow up.

Conclusion:

Cutaneous Cryptococcosis, even among the immunosuppressed, is a rare condition. Hence, in the absence of immunocompromised status, less prominent causes of suppressed immunity must be accounted for, including diabetes and chronic liver and kidney diseases. In the absence of all these, one must study the concerning potential host and environmental factors, yet undiscovered, that may play a major role in understanding the pathophysiology of this disease entity.

Disseminated Nontuberculous Mycobacterial Infection Attributable to Anti-Interferon-γ Autoantibodyassociated Immunodeficiency: Case Series and Therapeutic Approaches

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Introduction & Objectives:

Mycobacterium abscessus (M. abscessus), a rapidly proliferating species among nontuberculous mycobacteria, is predominantly implicated in cutaneous infection. This pathogen is capable of causing disseminated infections in individuals with compromised immune systems. A specific form of adult-onset immunodeficiency, marked by the presence of autoantibodies against interferon- γ (IFN- γ), frequently leads to nontuberculous mycobacterial infections that may progress to widespread systemic involvement. Our findings underscore the necessity of considering anti-IFN- γ autoantibody-associated immunodeficiency in patients presenting with disseminated nontuberculous mycobacterial infections and lymphadenopathy.

Materials & Methods:

This report describes three cases of disseminated infection caused by M. abscessus in patients with elevated anti-IFN- γ . A therapeutic strategy comprising a macrolide-based multidrug regimen, sustained for a minimum of three to six months and augmented with low-dose steroids has demonstrated efficacy in achieving favorable outcomes in such cases.

Case 1: A 41-year-old male presented with painful cervical lymphadenopathy and disseminated erythematous pustular lesions for 4 months. Lymph node biopsy culture revealed M. abscessus, and peripheral blood anti-IFN- γ autoantibody titer was 1:2500. PET/CT showed metabolically active lymph nodes in the head, neck, and mediastinum. Histopathological of cervical lymph nodes revealed granulomatous inflammation, while skin biopsy of trunk lesions showed SWEET syndrome-like changes.

Case 2: A 71-year-old male presented with papules and plaques on the left head, face, and neck persisting for over 2 years, worsening with trunk lesions for 6 months. Skin tissue next-generation sequencing (NGS) detected M. abscessus, and peripheral blood anti-IFN- γ autoantibody titer was 1:500. PET/CT revealed diffuse skin thickening and enlarged lymph nodes with increased metabolism. Biopsies from facial, trunk, and leg lesions showed granulomatous inflammation.

Case 3: A 52-year-old female presented with recurrent skin nodules, abscesses, and sinus tracts on the face, neck, and chest, along with enlarged lymph nodes for 2 years. Skin tissue NGS revealed M. abscessus, and peripheral blood anti-IFN-γ autoantibody titer was 1:12500. Chest CT showed multiple enlarged lymph nodes in bilateral axillae, mediastinum, bilateral hilar regions, and right cardiophrenic angle. Skin biopsy confirmed granulomatous inflammation.

Results:

These cases of disseminated infection caused by M. abscessus in patients with elevated anti-IFN- γ were successfully managed with an antimicrobial regimen consisting primarily of macrolides, supplemented by low-dose corticosteroids to modulate immune response.

Conclusion:

The presence of disseminated nontuberculous mycobacterial infections involving lymph nodes can signal an anti-IFN- γ autoantibody-associated immunodeficiency that warrants physician attention. An integrated treatment supplemented by low-dose steroids to modulate the immune response, is promising achieving optimal therapeutic outcomes.

A ten-year retrospective comparative study of Hansen's disease among elderly and pediatric populations at a tertiary care center in southern India.

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Introduction & Objectives:

India has a substantial burden of leprosy, accounting for 60% of global cases. Leprosy can affect individuals of all age groups, but people at the extreme age spectrum are particularly vulnerable and pose a higher risk of disease transmission within the community. Shifting demographics in India are leading to a higher prevalence of leprosy among the elderly population (aged over 60 years), with an estimated 173 million cases expected by 2026 and a study in the pediatric population aged (less than 18 years) indirectly points towards active disease in the community.

Top of Form

Objectives:

a. Evaluating the clinical, and epidemiological characteristics and assessing the prevalence rate of Hansen's disease in individuals aged over 60 years and less than 18 years.

Materials & Methods:

A ten-year retrospective review was conducted using records of patients aged over 60 years and less than 18 years, diagnosed with leprosy at a tertiary care center.

The study was an observational analytic study with a retrospective cohort approach.

Inclusion criteria:

All patients aged over 60 years and under 18 years diagnosed with Hansen's disease, during the period extending from January 1st, 2014- December 31st, 2023 were included in the study.

Exclusion criteria:

Patients with incomplete medical records were excluded from the study.

Methods:

A retrospective observational study was conducted at a tertiary care center from January 1st, 2014 to December 31st, 2023. The study focused on individuals aged over 60 years and less than 18 years who were diagnosed with leprosy. The diagnostic criteria were followed according to the guidelines set by the World Health Organization (WHO).

Patients were classified according to the Ridley–Jopling classification. Some individuals were also classified as pure neuritic leprosy according to The Indian classification of leprosy.

Diagnosis of Type 1 and Type 2 lepra reactions was based on clinical symptoms. Disabilities were assessed using the standard WHO grading system.

Statistical analysis utilized the Fisher extract test, chi-square test, and standard deviation. P- value was also calculated with less than 0.05 being statistically significant.

Results: The study found that among 292 leprosy patients, 32 (10.95%) were in the geriatric age group and 19 (6.50%) were in the pediatric age group. The majority of geriatric patients exhibited the Borderline tuberculoid spectrum (62.50%) of leprosy similar to pediatric patients 12(63.15%). Comorbidity rate and disability rate were statistically significant in the geriatric age group with p values of 0.001 and 0.001 respectively. Specific adverse events in the geriatric age group included one case of dapsone hypersensitivity syndrome. One patient in the pediatric age group had coexisting lupus vulgaris. The slit skin smear test (SSS) positivity rate was higher among the geriatric age group 9 (28.12%) Treatment completion rates were higher in the pediatric population (78.94%).

Conclusion:

Although leprosy rates are declining, it remains a significant public health concern in India. The involvement of children in leprosy is a clear indication that disease transmission is ongoing and active in the community. As life expectancy increases, there is expected to be a notable increase in leprosy cases among the elderly population. Since the disability rate and nerve involvement are statistically significant in the geriatric age group early detection and prevention of disability is crucial.

Angioinvasive Fungus Presenting as Purpura Fulminans after Penetrating Injury

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Introduction & Objectives:

A 52-year-old female with a history of aplastic anemia, atrial fibrillation, and hypertension presented to the emergency department as an outside hospital transfer with diffuse purpuric rash concerning for serum sickness. Our goal is to discuss her diagnosis and clinical course.

Materials & Methods:

She received four doses of anti-thymocyte globulin for her aplastic anemia over the past month. At the outside hospital, she was found to be hypotensive and febrile with an elevated lactate to 3.6. She had anemia with Hgb of 6.9, thrombocytopenia with platelet counts 5,000, and neutropenia to 50. Prior to arrival, she had received IV fluids, packed red blood cells, platelets, cefepime, and vancomycin. On examination, she had diffuse dusky purpura on the arms, thighs, and throughout her trunk, along with a large eschar on her right shin. The patient reported that the eschar occurred at the site of trauma one month earlier, when a pine wood board fell on her and left a puncture wound in her shin. Initial culture, biopsy and blood work did not reveal cause of the purpura.

Results:

A second punch biopsy from the eschar on the right shin revealed angioinvasive deep fungal infection and tissue culture revealed mucor. While angioinvasive fungal infections can appear clinically indistinguishable from other purpuric entities, penetrating trauma and immunosuppression are key risk factors.

Conclusion:

Given the morbidity and mortality associated with angioinvasive fungal infections, it is essential to consider and test for in febrile, neutropenic patients with purpura. This case highlights the importance of multiple samples and adequate sample site to make the diagnosis.

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Extraction of Sarcoptes scabiei var. hominis mites from infected patients using a 22G cannula

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Introduction & Objectives:

Scabies is a largely common infectious skin disease caused by *Sarcoptes scabiei var. hominis*, an obligate parasite specialized in infesting humans. The oxygen uptake occurs through diffusion, limiting the parasite's penetration depth to not deeper than the stratum corneum (10-30µm) or, occasionally, the stratum granulosum. Measuring 0.3-0.5mm the female *Sarcoptes* mites appear as tiny dots visible to the naked eye. Because *Sarcoptes* mite varieties are host-specific, utilizing animal mites for human medical research purposes isn't always practicable. Therefore, the aim of the study was to establish a minimally invasive technique to extract a high number of *Sarcoptes* mites from infected patients.

Materials & Methods:

This study was conducted between February 2021 and February 2022 including patients diagnosed with scabies at a German university hospital. Participants ranging from infants to elderly (5 months to 91 years) underwent examination using a dermatoscope. The technique was ideally executed immediately after the diagnosis prior to initiating the treatment, to ensure the mite was still alive and before the decomposition began. After identifying the mite/ kite sign, a 22G cannula was carefully placed and inserted at a 30° angle right next to the sign. The mite was extracted with a minimal forward and a slight lever movement. The depth of the cannula insertion varied depending on the extraction site; typically hands or feet, sometimes trunk, back, and thighs. Attention was paid not to exceed a depth of 50µm reducing the risk of pain and bleeding during the extraction process. In the case of successful extraction, a tiny dot (the mite) was visible at the tip of the cannula. Following the extraction, the mite was cautiously placed in a transparent plastic container. Positioning the dermatoscope directly over the mite within the container revealed its distinctive features and allowed observation of its movements if alive.

Results:

A total of 421 scabies mites both alive and dead were successfully extracted from 51 patients (mean 8.2, standard deviation 16.4). Initially, multiple attempts were required to extract the mite, whereas with increased experience the successful extraction was usually achieved on the first try, making the process faster and smoother. Extracting mites from infants and children was more challenging due to their inherent difficulty in remaining still and their fear of needles. The extraction from feet and hands was notably easier compared to other body parts, as the stratum corneum is thicker in those areas. All participants showed a high level of cooperation.

Conclusion:

The method described is suitable for the extraction of larger quantities of *Sarcoptes scabiei var. hominis*, paving the way for further research in antiparasitic research or the development of specific antibodies. In a clinical context, the method can be used to monitor treatment success as a clear distinction can be made between live and dead mites, with vital mites indicating the need to escalate treatment. The technique also holds promise for inexperienced dermatologists who may have doubts about their dermatoscopic diagnosis as it allows simple

verification of the mite. Most notably, the method is very cost-effective and easy to acquire allowing application in the clinical research environment. Further research should be conducted to determine the effectiveness of the method and utilizing questionnaires can help prove good patient tolerance.

A case report of Crusted Scabies misdiagnosed as Kyrle's disease: A lesson for Dermatologists

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Introduction & Objectives:

Scabies is a common infestation in developing countries which is caused by mite *Sarcoptes scabiei variant hominis*. It has been listed by WHO as one of the neglected tropical diseases. Crusted scabies or Norwegian scabies is a severe and highly contagious variant of scabies commonly seen in immunocompromised individuals. We report a case of crusted scabies misdiagnosed as Kyrle's disease because of presence of itchy crusted papules in a patient with chronic kidney disease.

Materials & Methods:

Case presentation

A forty-two years old man, known case of Diabetes with Chronic kidney disease under immunosuppressants and hemodialysis, presented with generalized itching for 1 year. He initially developed lesions over his extremities which spread to his whole body and was diagnosed as Kyrle's disease. He was treated with corticosteroids on and off for 11 months without any improvement. On examination, there were multiple crusted papules and nodules over his scalp, face, trunk, scrotum, bilateral extremities and finger web-spaces. We noticed few excoriated papules over the forearms of his wife too. With high suspicion of Scabies, skin scraping was done and observed under microscope which revealed multiple scabies mites and the diagnosis of Crusted scabies was confirmed. He was treated with topical Permethrin 5% lotion once weekly for 2 weeks, Tablet Ivermectin 12mg, emollients and Tablet Gabapentine. After 2 weeks, the pruritus had decreased significantly with improvement of skin lesions. Repeating microscopy of skin scraping didn't show any mite.

Results:

(Discussion)

Crusted scabies is a rare skin infestation with unknown prevalence. In crusted scabies, individuals have suppressed immune response to the mite leading to multiplication of the mites. It is commonly seen in immunocompromised individuals, HIV, organ transplantation and mentally retarded patients. It usually presents with hyperkeratotic crusted skin lesions which can mimic psoriasis, seborrheic dermatitis, Darier disease, Langerhans cell histiocytosis and even erythroderma. Pruritus may be absent or mild, but can be severe occasionally. It can be diagnosed by performing microscopic examination of scrapings, which shows numerous mites and eggs. For treatment of crusted scabies, CDC has recommended combination of topical scabicidal agents and oral Ivermectin along with treatment of the contacts.

Conclusion:

Generalized itching and crusted lesions in immunocompromised patients are often misdiagnosed and incorrectly treated like in our case. So, we are presenting this case to emphasize that crusted scabies should always be considered in immunocompromised patients with pruritus.

Cutaneous Mycobacterium marinum infection in a 50-year-old female, diagnostic challenges and successful therapeutic outcomes: Case report

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Introduction & Objectives:

Mycobacterium marinum (M. marinum) is an opportunistic pathogen of humans and freshwater or marine fish. The prevalence of human infection is 0.05 to 0.13 cases per 100000 inhabitants per year [Holden I.K. et al. 2018]. It occurs when contaminated water or infected fish come into contact with open wounds or abrasions on the skin [Trčko K., et al. 2021]. As the clinical presentation is not always indicative of the diagnosis, patient anamnesis is particularly important in such cases [Strobel K., et al. 2022]. There is also a lack of controlled trials on the effectiveness of antibiotic therapy due to the rarity of the disease. According to the literature, the median duration of treatment is 5 months [Holden I.K. et al. 2018]. We present a patient with chronic lesions in whom the diagnosis of M. marinum was made based on combined clinical signs, occupational history and histological examination.

Materials & Methods:

A case report.

Results:

A 50-year-old woman presented with a history of lesions on her right hand that had not healed for approximately four years. Multiple courses of potent topical steroids and antibiotic creams had been used. In addition, the short courses of systemic therapy with various antibiotics including amoxicillin, cefadroxil and cefuroxime were prescribed. However, no significant effect was observed. The patient also complained that the lesion had worsened after years of exposure to water and working with raw fish.

Physical examination revealed 5x2cm in diameter, bluish-pink infiltrated, partially scaling, locally erythematous and weeping plaque on the dorsal surface of the right hand. There was also erythema and swelling of the surrounding skin.

Laboratory tests including basic metabolic panel, liver function and complete blood count were unremarkable. There were no significant findings on the chest X-ray. Multiple cultures from the lesion for bacterial growth were negative. Skin biopsy and histological examination showed abscessing granulomatous inflammation without evidence of fungal infection. The PCR test for *Mycobacterium tuberculosis* was negative.

The patient was treated systemically with doxycycline 100 mg twice daily for six weeks. Treatment was discontinued due to improvement in clinical symptoms and the onset of dyspepsia. No relapse was seen after this course of treatment.

Conclusion:

M. marinum infection should be suspected from history and physical examination, and confirmed by histology and mycobacterial culture. There are no trials comparing treatment regimens. Mostly, macrolides or tetracyclines are

used as monotherapy. The optimal combination of antibiotics and the duration of treatment remain unknown. However, after 6 weeks of doxycycline, our patient was completely treated and only post-inflammatory hyperpigmentation remained.

The first reported case of furuncular myiasis in Armenia

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Introduction & Objectives:

Myiasis, a noun derived from Greek (mya, or fly), was first proposed by Hope to define diseases of humans caused by dipterous larvae, as opposed to those caused by insect larvae in general. In mammals (including humans), dipterous larvae can feed on the host's living or dead tissue, liquid body substance, or ingested food and can cause a broad range of infestations, depending on the body location and the relationship of the larvae with the host. The distribution of human myiasis is worldwide, with more species and greater abundance in poor socioeconomic regions of tropical and subtropical countries. In countries where it is not endemic, myiasis is an important condition. There are several species of dipteran flies whose maggots can parasitize the skin, vagina, urinary tract, gastrointestinal tract, nasopharynx, sinuses, eyes, and auditory canals of humans. However, the most common type of reported cases of myiasis in returning travelers from tropical countries is furuncular myiasis caused by Cordylobia anthropophaga (tumbu fly) from Africa or Dermatobia hominis (human botfly) from South America. Armenia is not endemic for this diseases and no case has been reported till now.

Materials & Methods:

A 47-year-old man presented 25-day history of painful nodule like lesions on his skin turned to dermatologist. Before he visited another physicians and was treated as a furunculosis with antibiotics with no improvement. The patient was a photographer for a television company, often traveled on business trips to different countries, returned from another operation from South America with this complains. Clinical examination revealed an erythematous, tender, poorly demarcated, painful nodule measuring approximately 3 cm on the right arm and buttock with a small pore at the top through which serous fluid drained. Physical examination of the patient revealed the presence of a fixed, indurated, erythematous nodule on hand and buttock. The patient did not have regional lymphadenopathy, fever, or any other systemic symptoms. He had no history of any physical or psychological illnesses/diseases.

Results:

On examination by dermatoscopy a maggot readily emerged, identified as Dermatobia hominis and diagnosed as Furuncular Myiasis. The diagnosis of cutaneous myiasis is usually made clinically and supported by a relevant travel history, but it can be aided by using dermoscopy or imaging procedures. Since the patient was in a severe psychological state after seeing the pathogen, surgical removal of the furuncle was performed. During the follow-up of the patient, the lesions achieved full recovery after 2 weeks.

Conclusion:

Since Myiasis is uncommon in Europe and Caucasus region, it is frequently misdiagnosed and its recognition is often delayed. Due to the continuous growth in international tourism, it is very important for Western and Caucasian dermatologists to became familiar with myiasis and consider this diagnosis in case of furuncle-like lesion. Moreover, travelers to endemic areas should be informed of preventive measures to reduce mosquito bites and transmission of.

Majocchi Granuloma of the knee: A rare clinical entity

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Introduction & Objectives:

Majocchi's granuloma is a rare fungal infection of the dermis and subcutaneous tissue. The clinical presentation overlap with other skin diseases, such as bacterial infections and inflammatory skin diseases, delaying the correct diagnosis and adequate treatment. We present a case of Majocchi's granuloma on the knee of an immunocompetent patient who was initially treated as psoriasis.

Results:

A 36-year-old woman with no known significant medical history, presented to our dermatological department with a six-month history of a slightly raised, reddish lesion over her right knee accompanied with pruritus. She was diagnosed with psoriasis and was treated with topical corticosteroids and systemic antibiotics for several months without improvement. Clinical examination showed a single erythematous plaque with a discrete circular pattern over the right knee with multiple erythematous scaly follicular papules. The borders of the lesions appeared more intense redness and desquamative. Follicular-centered pustules were present on the surface. Routine blood tests were within normal limits. Direct examination of the scales and the purulent discharge revealed no bacterial infection. Histological examination of a punch biopsy showed cell granulomas with lymphocytes, neutrophils around the follicle and positive spores was stained with Periodis acid-Schiff (PAS) compatible with the diagnosis's of Majocchi's granuloma. The patient was treated with oral terbinafine 250mg/day for 12 weeks aossociated with topical sertaconazole olamine twice daily. The skin lesions improved significantly, and there was no recurrence during follow-up.

Conclusion:

we report an unusual presentation of Majocchi's granuloma in an immunocompetent patient. Fungal infections can be challenging to diagnose. It has a variable presentation ranging from cutaneous lesions to deeper infections. In addition, this case highlights the importance of collecting deep microbiological samples for diagnosis.

Post-mesotherapy atypical mycobacteriosis: a current challenge.

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Introduction & Objectives:

The global demand for non-surgical aesthetic procedures has experienced a remarkable rise over the past years. Consequently, there has been an increase in complications, such as atypical mycobacteriosis. The purpose of this report is to discuss the diagnostic and treatment challenges concerning *Mycobacterium abscessus* infections.

Materials & Methods:

We present a case of a previously healthy 47-year-old woman who had undergone mesotherapy by a non-medical professional. Two months later, erythematous and painful nodules appeared at the injection sites. Laboratory tests, nodule biopsy and lesion aspirate were performed. Despite initial negative results, due to clinical and epidemiological suspicion, a second sample was obtained, which confirmed the diagnosis by isolation of *M. abscessus* in culture for atypical germs. The patient received one year of treatment with amikacin, linezolid, and clofazimine. She achieved cure with the development of local atrophic scars.

Results:

Mesotherapy, which involves subcutaneous injections of multiple substances for cosmetic purposes, has been associated with both infectious and non-infectious complications, and infections by nontuberculous mycobacteria (NTM) are often reported. *Mycobacterium abscessus* is a rapidly growing NTM found in the environment, presenting challenges in both diagnosis and treatment due to its inherent resistance to conventional antibiotics. Treatment typically involves individualized therapy with a combination of at least 2 antibiotics, and surgical management may be necessary. Suspected NTM infections secondary to mesotherapy should be considered when lesions exhibit geometric patterns or coincide with the injection sites.

Conclusion:

In cases of suspected atypical mycobacteriosis, diagnosis is confirmed through culture, although isolating the agent can be challenging. Antibiotic sensitivity testing is crucial to guide therapy due to high resistance rates. Treatment typically involves 4 to 6 months of combined antimicrobial therapy.

Multifocal Tuberculosis: Not Always Limited to Immunocompromised Individuals

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Introduction & Objectives:

Tuberculosis (TB) is an infectious disease that can affect multiple organs simultaneously. Multifocal TB (MT) is defined by involvement of at least two extrapulmonary sites, with or without pulmonary involvement.

Materials & Methods:

We report the case of a man who developed MT discovered through cutaneous lesions.

Results:

A 47-year-old male with a history of congenital deaf-mutism presented with painless lesions on the nose and hand evolving over 2 years. He had received proper BCG vaccination and had no history of tuberculosis exposure or immunosuppressive treatments.

Clinical examination revealed an erythematous plaque on the dorsum of the nose scattered with erosive lupoid papules extending to the cheeks, associated with an infiltrated ulcerated and retractile swelling on the palm of the right hand. Dermoscopy revealed yellow globules on an erythematous background along with short linear vessels. Laboratory tests showed lymphopenia at 860 cells/mm3 and elevated CRP at 40 mg/l. Dermal smear did not show Leishman bodies. Tuberculin skin test and acid-fast bacilli (AFB) staining in sputum and urine were negative. Histological examination of skin biopsies from the nose and hand showed epithelioid and giant-cell granulomas and neutrophils forming suppuration foci. There was no caseous necrosis. PCR for Mycobacterium tuberculosis DNA from the same skin fragment showed positive traces, suspecting cutaneous TB.

Six months later, the patient presented with a firm ulcerated nodule on the thumb and swelling of the hand joints. Further investigations (thoraco-abdomino-pelvic CT scan, magnetic resonance imaging (MRI) of the hands, brain MRI) showed signs of MT involving the lungs, bones, and brain. This diagnosis was confirmed by epithelioid granulomas and caseous necrosis on bone biopsy. Antituberculous treatment led to complete healing of the nose and hand lesions with normalization of lymphocyte count within 3 months. A combination therapy with isoniazid and rifampicin was continued for 15 months, with regular rheumatological and neurological follow-up.

Conclusion:

Multifocal forms of TB are rare and represent 9 to 10% of extrapulmonary localizations. In our patient, the lesions on the nose and cheeks were suggestive of lupus vulgaris, a form of cutaneous TB often paucibacillary. Although signs of MT were subtle at the initial consultation, suspicion of cutaneous TB provided a clue to guide the diagnosis of MT.

Classically, MT occurs in the context of immunosuppression, but it can sometimes affect immunocompetent individuals, as in our patient's case. Delayed diagnosis may lead to infection spread.

Several hypotheses have been proposed to explain the occurrence of this extensive form of TB in immunocompetent individuals. Some authors have linked MT to the intensity of transmission in the community,

while others implicate malnutrition as a predisposing factor. Additionally, genetic susceptibility to mycobacterial infections has been suggested due to defects in the interleukin 12-interferon gamma pathway, thus predisposing to MT.

MT is not exclusive to immunocompromised individuals and can be observed in the immunocompetent with a generally good prognosis. Chronic cutaneous lesions with a granulomatous appearance on histology should raise suspicion of TB.

Abscesos glúteos crónicos asociados con Mycobacterium abscessus; Reporte de un caso

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Introduction

Mycobacterium abscessus belongs to a group of nontuberculous mycobacteria. These bacteria are found in soil, water and dust, maintaining close contact with humans. Their infectious process is considered opportunistic.

The most common infection generated by M. abscessus is pulmonary, skin infection occurs only with trauma or direct inoculation, associated with cosmetic or medical procedures, tattoos and traumatic accidents.

Isolating this agent is complicated and generates a delay in diagnosis; the ideal method is molecular identification with PCR.

Case presentation

26-year-old male patient, resident of Guadalajara, Jalisco. No significant pathological history.

He attended the coloproctology service for recurrent abscesses in the gluteal region. Coloproctology indicated treatment with nonspecific antibiotics.

After multiple evaluations by specialist doctors and therapeutic failure, he was sent to the dermatology service.

In the dermatology service, a single dermatosis was observed located in glutes bilateral symmetrical, characterized by ulcers, some fistulized, with secretion of purulent material, painful, of chronic evolution.

It was decided to take gram and culture of secretión with negative results. A culture for mycobacteria was performed, finding a positive culture for Mycobacterium abscessus and confirmed with a PCR test.

The specific questioning to the patient we find out a history of multiple intramuscular injections of vitamin B12 in the year prior to the onset of symptoms.

In conjunction with the infectious disease service, treatment with levofloxacin and clarithromycin was decided for 3 months.

In the evaluation after 3 months he showed clinical improvement.

Discussion

Cases of skin and soft tissue infections due to Mycobacterium abscessus have been reported after procedures such as tattoos or piercings, intravenous medication placement or peritoneal dialysis. Our case is associated with self-indicated intramuscular injections.

The diagnosis of this type of infection is usually complicated by its infrequency and low diagnostic sensitivity with conventional cultures.

At the same time, clinical presentations can be very variable.

In a case report made with Mexican patients, the symptoms range from erythema to nodules/ulcers.

Not only the diagnostic approach but also the treatment is complicated, multiple antibiotic therapy approaches have been described, in our case patient treated with levofloxacin and clarithromycin infectology, the scheme is planned from weeks to months to present clinical improvement.

Conclusions

Cutaneous infection by M. abscessus is rare and occurs only after inoculation or trauma in immunocompetent patients. Questioning of patient history is key for diagnosis. This case is presented to demonstrate that simple procedures can cause chronic and complicated infections.

Prediction in Genetic Mapping for Leprosy Infection in Indonesia

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Introduction & Objectives:

Leprosy caused by infection of *Mycobacterium leprae*; remains a major challenge to global public health. The highest leprosy disease in Indonesia was found in East Java, especially in the area of the island of Madura. Natural resistance-associated macrophage protein1 (NRAMP1/SLC11A1) gene has been suggested to be an associated gene of the host susceptibility to *Mycobacterium* infection. Targeted screening based on genetic susceptibility markers may accelerate early diagnostic efforts and treatment policy in endemic areas. This study aims to examine the genetic mapping of NRAMP1/SLC11A1 in host susceptibility to leprosy among people from endemic areas in Bangkalan, Madura, and Surabaya.

Materials & Methods:

Patients with leprosy and healthy contact with leprosy were recruited from public health centers in two endemic leprosy areas, Bangkalan, Madura, and Surabaya. Diagnosis and classification of leprosy were based on WHO criteria, namely, the appearance and distribution of skin lesions by clinical appearance and acid-fast bacilli in slit-skin smear examination by microscope. IgM and IgG Anti-PGL1 detection was carried out by serological examination using ELISA. The diagnosis of subclinical leprosy was based on negative signs of leprosy in clinical examination, but the serological test for leprosy was positive (IgM anti-PGL-1 antibody > 605 u/ml). The INT4 and D543N polymorphisms of the NRAMP1 gene were determined using the technique of restriction fragment polymorphism on DNA extracted from peripheral blood.

Results:

One hundred fifty-eight leprosy patients and household contacts were offered to participate in the study. One hundred twenty-three participants enrolled in the study; incomplete or unavailable data was used as an exclusion criterion. There was no significant difference in gender, age, IgM, and IgG levels between participants. The study also found no significant difference in "INT4" and "D543N" genotypes distribution between participants from Bangkalan and Surabaya.

Conclusion:

The genetic mapping of NRAMP1/SLC11A1 represents a significant step forward in unraveling the complex genetic determinants of leprosy susceptibility. In Bangkalan, Madura, and Surabaya, we discovered no significant connection between the D543N and INT4 genotype variants of NRAMP1/SLC11A1 and leprosy susceptibility,

according to the relationship with anti-PGL-1 antibody levels. Further research is needed to elucidate the precise molecular mechanisms underlying the association between NRAMP1 gene polymorphism and the susceptibility to leprosy, which may help in the development of early diagnosis, targeted therapies, and prevention strategies for this infectious disease.

Cultural practices and dermatophytosis: Investigating ethnic variations in Tinea prevalence - A crosssectional study

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Introduction & Objectives:

Dermatophytosis, a highly contagious fungal infection primarily caused by dermatophytes thriving in keratin-rich environments, varies widely in prevalence across India, particularly affecting low and middle-income countries due to humid climates and prevalent cultural practices. Certain anatomical regions, prone to moisture and warmth, create ideal conditions for fungal proliferation, exacerbated by snugly worn adornments and attire. Understanding this interplay is crucial, especially amid global cultural exchange. The study aims to unveil correlations between cultural practices and dermatophytosis, elucidate cultural risk factors, analyze infection patterns, and assess their implications.

Materials & Methods:

A descriptive cross-sectional study was conducted in high-prevalence regions over 6 months. Participants diagnosed with dermatophytosis affecting non-glabrous skin were included, while those with dermatophytosis limited to the scalp and nails, as well as individuals with co-existing papulosquamous dermatoses, were excluded. A total of 100 patients meeting the criteria were recruited. The study aims to augment its sample size to up to 220 patients. Through a structured questionnaire, information was gathered after approval from the institutional ethics committee.

Results:

In the study of 100 patients, a striking 25% displayed a direct correlation between dermatophytosis and cultural practices. Male predominance was observed (56%), with an average age of 22. The Dermatophytosis Severity Score ranged from 0.3 to 21.2, averaging 10.3. The participants exhibited diverse ethnic backgrounds, with 60% identifying as Hindu, 36% as Muslim, and 4% as Christian. Among them, 24% engaged in cultural practices associated with prayer rituals, such as Muslims participating in "Namaz" and certain Hindus performing a daily prayer called "Sandhyavandane." Predominant adornments included sacred waist threads (52%) and wrist threads (24%). Materials varied, such as cotton for threads, nylon for burqas, and silver for amulets. Notably, one case involved dermatophytosis over a culturally significant tattoo. The most frequent areas of the body covered were the lower abdomen (68%) and upper limbs (16%). Two of the three patients wearing clothing covering their faces were diagnosed with tinea faciei. Recurrence was widespread, affecting 52% of patients, with each patient experiencing at least one relapse. Alarmingly, 91.6% of cases mirrored prior infections and current adorned sites. Unfortunately, only 20% recognized the association and partook in hygiene practices, emphasizing the need for awareness. 56% sought treatment, mainly with partially effective topical drugs, while half used over-the-counter creams containing potent steroids, necessitating improved regulation and education.

Conclusion:

Our study reveals a crucial link between dermatophytosis and cultural practices spanning various faiths, emphasizing recurring infections and the necessity for regulated treatments. The prevalent use of potent steroid-laced topical treatments underscores the need for stricter regulation and heightened patient awareness. These

insights advocate for targeted strategies and clinical management within cultural contexts, contributing to global health initiatives and empowering communities to understand socio-cultural health determinants, thus addressing this research gap.

Expression of Nucleotide-binding Oligomerization Domain 2 (NOD 2) and Natural Resistance-Associated Macrophage Protein 1 Gen (NRAMP 1) in a family with multibasiller leprosy

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Introduction & Objectives:

Leprosy is a chronic infectious disease caused by the Mycobacterium leprae. The clinical and pathological spectrum of leprosy, epidemiological heterogeneity, geographical and ethnic can be explained by genetic differences. The specific genes involved in leprosy progression are still researched. Recent research suggests a genetic basis for differences in the capacity of macrophages within the host to reduce bacterial multiplication. Several macrophage activation pathway to presence of *M.Leprae** including Toll-like receptors 2 and 1 (TLR 1/2), NOD 2 and NRAMP 1. The involvement of NOD2 in the pathogenesis of several diseases suggests that this protein is a key regulator of response and inflammation. Extensive research has proven the fundamental role of NOD2 in maintaining the balance between bacteria, epithelium, and the host's innate immune response. NOD2 mutation can be reduced their protective function, thereby exacerbating inflammation. NRAMP 1 is an integral membrane protein expressed mainly in macrophages and causes increased bacteriostatic capacity. NRAMP 1 protein is also involved as a signal transduction during macrophage activation. Human NRAMPI may be an important determinant of innate or developmental susceptibility in leprosy. This study aimed to determine whether there is a genetic predisposition as a factors that influence the development and severity of leprosy.

Materials & Methods:

This research is a qualitative observational study involving a family of four people with multibasiler leprosy with and without leprosy reactions. Quantitation of NOD 2 and NRAMP 1 expression from quantitative real time PCR.

Results:

The highest expression of the NOD 2 and NRAMP 1 genes was found in the mother, followed by father and their two children. High expression indicate high macrophage response associated with mild clinical manifestations and non-leprosy reaction, whereas lower gene expression indicates a lower macrophage response associated with severe clinical manifestation and severe leprosy reaction. The expression of the NOD 2 and NRAMP1 genes of father and the two children has no significant differences compared to mother's sample.

Conclusion:

The course of leprosy is complicatedly with host factors such as heredity and immunity. In this study there are possibilities that same genetic susceptibility like in father and children sample can influence macrophage response which then influence clinical status.

Lymphocytoma cutis mimicking red ear syndrome

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Introduction & Objectives:

Lymphocytoma cutis (LC) or cutaneous B cell pseudolymphoma is a benign reactive B cell proliferation to various antigenic stimuli like arthropod bites, drugs, piercings, and tattoos. LC caused by *Borrelia burgdorferi* infection is the third most common manifestation of Lyme borreliosis (LB) in children. Positive seroreactivity is higher in LC compared to erythema migrans clinical manifestation. The treatment of choice in children is amoxicillin with complete resolution of LC within a median of two months after initiating the antibiotic treatment.

Materials & Methods:

A 7-year-old girl with unremarkable past medical history presented with two-month history of redness and mild oedema of the left auricular helix. Lesion was asymptomatic. Parents noticed a change in colour, from erythematous to violaceous upon irritation and crying with no other trigger observed, in particular no evident arthropod bite. The lesion appeared one month after seaside vacation in Europe. Topical treatment with various corticosteroids and oral antihistamines did not result in lesion regression.

Results:

Examination revealed well-circumscribed, dull erythematous, slightly oedematous left auricular helix with sparing of the earlobe (Fig. 1). The lesion was not warm or tender to palpation. Mild erythema of the left cheek was observed. Complete skin examination revealed no other skin pathology. Differential diagnosis included LC, lupus and red ear syndrome, a rare condition characterised dominantly by unilateral, more common left ear redness and swelling occasionally spreading to the left cheek. Blood tests were unremarkable with biochemistry and immunology results within normal range. *Borrelia burgdorferi* serology confirmed positive IgG 168.3 and negative IgM and Western Blot IgG. Patient was treated with amoxicillin 400 mg TDS for 3 weeks with almost complete resolution of LC (Fig. 2).

Conclusion:

Borrelia burgdorferi-associated solitary LC is a rare manifestation of LB, almost exclusively reported in Europe's highly endemic areas. Clinical features of erythema and swelling of the pinna without more common nodular manifestation of LC and no close proximity to time of tick bite can lead to a delay in diagnosis, in particular in cases where no tick bite was observed. Arnez et al. reported a tick bite detected at site of LC in only 30% of children compared to 64% adults. Timely treatment is important to avoid late complications of LB.

Clinico-epidemiological Profile of Erythema Nodosum Leprosum Cases at a Tertiary Healthcare Centre

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Clinico-epidemiological Profile of Erythema Nodosum

Leprosum Cases at a Tertiary Healthcare Centre

Introduction & Objectives: Leprosy or Hansen's disease is a chronic infectious disease, caused by the bacterium, Mycobacterium leprae. Objective of the study is to study epidemiological profile of ENL.

Materials & Methods: It was a hospital based prospective observational study where all the newly diagnosed leprosy patients who attended the OPD the period of 1 year were included in study. Patients were clinically diagnosed as ENL and those who were willing to participate in the study were enrolled. Those patients not willing to participate and already diagnosed as recurrent ENL in the past and were on treatment for the same, they were excluded from the study. A detailed history of all patients regarding demographic details such as age, sex, literacy status, residential area and clinical details like past history of treatment for Hansen's disease, ENL or any other comorbidities & family history was leprosy was also searched for. A detailed clinical examination was done in all the cases enrolled. Diagnosis of ENL was made clinically. Investigations like biopsy for histopathological evaluation and slit skin smear for acid fast bacilli were done in all the cases.

Results:

During the study period, we detected total of 162 new cases of leprosy. Out of these 162, 32 patients presented with reactions at some point in the course of the disease. 11 patients were diagnosed as type 1 reaction and 21 patients were diagnosed as having Erythema nodosum leprosum.

Out of total 21, 11 (52.38%) were males and 10 (47.62 %) were females. Majority of the patients were in 21 to 40 years of age group. 18 (85.71%) patients out of total 21 were from rural area, and the remaining were from urban area (14.3 %). 9 patients (42.9 %) were illiterate, 6 (28.6%) patients had undergone primary schooling, 5 (23.8%) patients had secondary schooling and 1 (4.8%) patient was graduate. 2 patients (9.5%) had history of contact/family history of leprosy.

Out of total 21 patients, 5 (23.8%) presented with ENL before the initiation the treatment, 11 (52.4%) patients during the course of the treatment and remaining 5 (23.8%) patients after the completion of the therapy. 2 (9.5%) patients were diagnosed with necrotic erythema nodosum leprosum, 2 (9.5%) patients had ulcerated lesions, sweet's syndrome like presentation was present in 1 patient (4.8%) and 1 (4.8%) patient had bullous lesions,& the rest were of nodular presentation (71.4%), making it the most common form of presentation of ENL in our study. Bacillary index was as follows: 1+ in 2 patients (9.5%), 2+ in 3 patients (14.3%), 3+ in 5 patients (23.8%), 4+ in 9 patients (42.9%), 5+ in 2 patients (9.5%). Nerve involvement was seen in 15 patients of total 21 (71.4%).

Conclusion: Type 2 lepra reactions classically present as red tender subcutaneous nodules or plaques associated with other systemic symptoms like fever, malaise, arthralgia or myalgia. Our study reported only a slight male preponderance, (52.4%). Majority of the patients presented with classical nodular type, with few cases also having bullous, necrotic or sweets syndrome like presentation. Many of the patients also showed nerve involvement, this points to the fact that neuritis is also feature of ENL and not just type 1 reactions. Also, majority of the patients

had high bacterial index (3+ and 4+). Thus, patients having higher number of bacteria are more prone for ENL.

Swab versus tissue sampling: microbial profiles and antimicrobial resistance of diabetic foot ulcers in a tertiary diabetic foot care unit

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Title: Swab versus tissue sampling: microbial profiles and antimicrobial resistance of diabetic foot ulcers in a tertiary diabetic foot care unit

Introduction & Objectives: More than 50% of diabetic foot ulcers (DFUs) are complicated by microbial infections, leading to significant morbidity and mortality. Although current guidelines recommend obtaining a tissue sample rather than a swabbing, the superiority of tissue sampling over swabbing still needs to be determined. In this study, we aimed to investigate and compare the causative microorganisms obtained with swab and tissue cultures and demonstrate the antibacterial sensitivity patterns of DFUs in a tertiary hospital. **

Materials & Methods: The medical files of 316 patients with DFUs who were hospitalized at the diabetic foot care unit between December 2019 and January 2021 were retrospectively reviewed. Clinical severity was assessed using the Wagner and PEDIS classification system. Microbial growths of swab and tissue specimens and antibacterial sensitivity patterns of the ulcers were noted. **

Results: Of the patients, 72.2% were male, and the mean age was 61.9±10.6 years. According to PEDIS classification, 52.9% of the patients had grade 2, 42.7% had grade 3, and 4.4% had grade 4 disease. Most of the patients had WAGNER grade 4 (68.5%). At admission, both swab and tissue samples for microbial cultures were concurrently obtained from the ulcers of patients. Growth of isolates was observed in 64.5%* of swab cultures vs. 63.6%* of tissue cultures. The microbiological results from both methods were identical in 140 cases (44%). Polybacterial infection was detected in 12% of swab samples and 18% of tissue samples. The rates of grampositive aerobes, gram-negative aerobes, gram-negative anaerobes and fungi in swab culture vs tissue culture were 38% vs. 42%, 62% vs. 50%, 0 vs. 8%, and 2% vs. 7%, respectively. S. aureus, Enterococcus spp, and Streptococcus spp were the most common gram-positive isolates, and E.coli and P. aeruginosa were the most common gram-negative isolates cultured in both sampling methods. Cohen's kappa coefficient for the concordance of gram positive and gram negative growths between swab and tissue cultures were 0.428 and 0.507, respectively (p<0.001). Besides, regarding the clinical severity of DFUs, microbiological results showed fair to substantial concordance. When compared, the sensitivity and specificity of swab culture in identifying grampositive cocci were 55.6% and 86.0%, respectively; while, the values were 75.4% and 76.8% for identifying gramnegative bacilli.**

Antibiograms showed methicillin-resistant *S. aureus* in more than a quarter of samples; however, all were susceptible to vancomycin. The most common isolates of gram-negative bacilli obtained from both swabs and tissue samples showed notable resistance to ciprofloxacin and ceftriaxone. Piperacillin-tazobactam resistance was high in *P. aeruginosa, K. pneumonia, and M. morganii* isolates.

Conclusion:

While there is a moderate level of concordance between swab and tissue cultures, the sensitivity of swab culture is relatively low. The high rates of resistance to the most commonly used antibiotics indicate that antibiotic selection should be regulated according to culture results. We suggest to obtain both swab and tissue samples from diabetic foot ulcers to show the accurate microorganisms and antibiotic resistance profiles.

Recurrent refractory candidal balanoposthitis on treatment with the antidiabetic agent: sodium-glucose cotransporter 2 inhibitor (SGLT2 inhibitor)

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Introduction: Patients with diabetes mellitus (DM) are at a two-fold higher risk of developing infections as compared with nondiabetic individuals. Patients with DM also have an increased risk of genital infections. Sodium-glucose cotransporter 2 (SGLT2) inhibitors are novel oral hypoglycemic agents that inhibit the re-uptake of filtered sodium and glucose at the proximal convoluted tubule. SGLT2 inhibitors cause significant glycosuria, associated with a nearly five-fold increased risk of genital mycotic infections. These infections are typically not severe as reported in large systematic reviews and meta-analyses. However, there are several reports of severe or refractory cases. We report a case with recurrent refractory balanoposthitis that needs discontinuation of the SGLT2 inhibitor.

Case presentation: A 64-year-old Japanese male patient was referred to our hospital with a nine-month history of recurrent refractory candidal balanoposthitis despite treatment with topical and oral antifungal medicine, which was suspected to be associated with immunodeficiency. The patient had a more than 2-year history of type 2 DM for which he had been on Teneligliptin 20 mg/canagliflozin 100 mg combination tablets, dipeptidyl peptidase 4 (DPP-4) inhibitor and SGLT2 inhibitor, daily for the past nine months. He complained of recurrent erythema over the prepuce and glans. There was no regional lymphadenopathy, and cutaneous and systemic examination did not reveal any abnormalities except the superficial penile lesion. Complete blood count and urine microscopy were within normal limits. Blood sugar level was measured at 201 mg/dL (<109 mg/dL) and HbA1c was 7.6% (<6.0%). Serology for HIV and syphilis was nonreactive. A skin biopsy of the penis showed budding yeast cells, and the culture grew *Candida albicans*. A diagnosis of Candidal balanoposthitis was made in the patient. He was treated with oral Itraconazole 200 mg once daily and topical 1% Clotrimazole cream. At 2 weeks the candidiasis was not cured completely. Teneligliptin/canagliflozin combination tablets were discontinued because the penile symptoms did not improve in spite of long-term antifungal therapies. Candidal balanoposthitis resolved in a month from changing his type 2 DM medication.

Conclusion: SGLT2 inhibitors are prescribed more frequently in DM because of their effect on weight loss, a reduction in blood pressure, and favorable cardiovascular outcomes. However, they have a higher risk of genital mycotic infections compared with other hypoglycemic agents. Although topical therapy is usually sufficient in most cases of candidal balanoposthitis, it sometimes becomes incurable without the withdrawal of SGLT2 inhibitors like in our case. Clinicians should be aware of their mechanism of action and the associated risk of infection prior to the prescription of SGLT2 inhibitors.

Epidemiological insights into infections by Trichophyton mentagrophytes species complex in France

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Introduction & Objectives:

The epidemiology of dermatophytosis has been marked in the last decade by the emergence of *Trichophyton indotineae* in the Indian subcontinent and its subsequent global spread (Jabet et *al.*, 2023). Additionally, *T. mentagrophytes* ITS-genotype VII has been identified in Europe as a causative agent of sexually transmitted dermatophytosis, especially among men who have sex with men (MSM) in France (Jabet et *al.*, 2023). However, data regarding the epidemiology of infections caused by the *T. mentagrophytes* species complex (*T. mentagrophytes, T. interdigitale,* and *T. indotineae*) in Europe are scarce (Klinger et *al.*, 2021, Svarcova et *al.*, 2023). The objective of the study was to describe the epidemiology of these infections in France.

Materials & Methods:

Between July 2023 and March 2024, all isolates from hair or skin lesions belonging to the *T. mentagrophytes* species complex that were obtained from three large private laboratories, each representing a distinct region, were included in the study. The isolates obtained from foot samples were excluded from the study. Clinical data were obtained during the sampling consultation and through voluntary completion of a questionnaire by the patient. Species identification and ITS-genotype determination were performed by sequencing the ITS region. Sensitivity to terbinafine was evaluated via terbinafine containing agar method (Moreno et *al.*, 2023). For the terbinafine-resistant isolates, the *SQLE* gene was sequenced to identify resistance mutations.

Results:

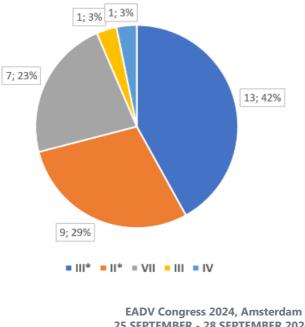
Forty-seven isolates underwent analysis. 31 (65.9 %) were identified as *T. mentagrophytes sensu stricto*, 11 (23.4 %) as *T. indotineae*, and 5 (10.6 %) as *T. interdigitale*. Regarding ITS-genotypes within *T. mentagrophytes s.s.*, genotype III* and II* were the most prevalent (Figure). Genotype VII was the third most common genotype with 7 (22.5 %) isolates. The infections with *T. mentagrophytes* ITS-genotype VII were exclusively identified in men with a median age of 30 years [18-42] (Table). At least two patients had multiple male sexual partners in the last two months. No case was identified in children. In contrast, for genotypes III*, II*, III, and IV infections were more common in women (16/24) than in men (8/24), median age of the patients was 20 [2-67]. Notably, 8 (30.0 %) patients were under 16 years old. *T. indotineae* infections were more frequent in men (10/11) than in women (1/11), the median age of the patient was 32 [3-75]. All isolates apart 3 were resistant to terbinafine, until now the substitution F397L was identified in all cases. No terbinafine-resistance was identified in the other species. *T. interdigitale* infections were found in older people (median age: 69 [14-83]), in men as well as women (2/3).

Conclusion:

This study offers novel insights into the epidemiology of *T. mentagrophytes* infections in France. It confirms the establishment of *T. indotineae*, characterized by a high prevalence of terbinafine-resistance. Furthermore, it presents new evidence supporting the existence of a transmission network involving *T. mentagrophytes* ITS-

genotype VII among MSM, which appears to extend beyond the Paris region. Notably, our findings regarding common zoophilic genotypes (III*, II*, III, IV) diverge from those reported by Klinger et *al.* where genotype III was predominant. It suggests potential difference in the strains infecting animals.

Figure: Repartition of ITS-genotypes among Trichophyton mentagrophytes sensu stricto isolates



Chromoblastomycosis: a case series from Sumba, eastern Indonesia

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Introduction & Objectives: Chromoblastomycosis (CBM) is a deep fungal infection, caused by pigmented fungi widely found in nature. CBM typically affects agricultural workers after transcutaneous inoculation during their daily activities, particularly in impoverished communities in (sub)tropical regions in Africa and South America. CBM is listed as a neglected tropical disease and has an unknown global disease burden. CBM is characterized by extensive verrucous nodular lesions, usually affecting the lower limbs, which leads to disfigurements and is associated with stigma and loss in quality of life. Treatment is difficult and prone to recurrence. Oral antifungals should be given for at least 6 months, and are often combined with cryotherapy or surgery. In most endemic settings, frontline healthcare workers (HCWs) often lack the specific skills and resource (i.e. direct microscopy, histopathology) in diagnosing and managing skin-NTDs. Through a teledermatology service supporting community health clinics in eastern Indonesia, we identified 4 patients with CBM and highlight the complexities associated with the management and control of CBM in rural areas in Indonesia.

Materials & Methods: Sumba, a remote island in eastern Indonesia, has a population of 800,000, of which 29% live below the poverty line. Traditional small-scale subsistence farming is the predominant occupation. Sumba Foundation, a NGO founded in 2001, supports 5 primary health clinics and provides basic free-of-charge health services. 15% of the outpatient consultations are skin-related. In October 2020, we initiated a teledermatology platform to support frontline HCWs and improve access to and quality of skin care services in Sumba.

Results: Between 2021-2023, 4 patients with CBM were identified based on clinical findings.** The median age was 55 (IQR 53-56). 3 patients were male. The lower extremities were affected in all patients, involving the foot or the lower leg and in 1 case extending up to the thigh. None reported a history of trauma prior to onset of the skin lesions. The duration of symptoms ranged from 3 to 20 years. In 2 patients, the diagnosis was confirmed by histopathology. In 1 patient, the biopsy was of poor quality and the other patient was loss-to-follow-up. All patients had previously been exposed to alternative treatments with little response. 3 patients were treated with ketoconazole tablets, because alternative, more effective drugs (such as itraconazole or terbinafine) were not available nor affordable. To date, 2 patients have completed 6 months of treatment with considerable clinical improvement, whereas the other 2 patients did not return for follow-up.

Conclusion: To date, few cases of CBM have been reported in Indonesia. Our findings highlight the challenges faced in managing skin-NTDs like CBM in remote areas due to lack of diagnostic expertise, limited treatment options, low health literacy and poor treatment adherence. Based on our findings, our clinics have introduced direct microscopy as a rapid and cost-effective alternative for diagnosing CBM, reducing the reliance on resource-intensive skin biopsies. Our platform demonstrates the potential of telemedicine in improving access to specialized healthcare for underserved populations. To achieve the goals in the WHO NTD-Roadmap 2021-2030, structural investments are needed to perform surveillance studies and ensure the availability of essential

treatments to address the pressing needs related to CBM.

Unbreakable Bond: A Case of Squamous Cell Carcinoma Mimicker in Married Couple

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Introduction & Objectives:

Squamous Cell Carcinoma (SCC) is the second most common skin cancer. It has a multifactorial pathogenesis that includes age, genetic predispositions, immunosuppression, chronic injury or inflammation, chronic UV radiation, ionizing radiation, viral infections, drugs, and industrial carcinogens. Several diagnoses have histopathologic similarities with SCC, including pseudoepitheliomatous hyperplasia, a reactive proliferation of the epidermis secondary to numerous infectious, inflammatory, and neoplastic etiologies. We present an unusual case of a married couple with a histopathologic diagnosis of SCC, but with marked improvement of the lesion following a therapeutic trial of oral antifungal therapy. In a limited-resource setting, clinical judgement is highly emphasized.

Materials & Methods:

We present a case of a married couple with suspicious skin lesions. Histologic assessment via hematoxylin and eosin (H&E) staining and periodic acid schiff stain (PAS) was done. Clinical examinations and relevant diagnostic procedures were conducted to elucidate their condition.

Results:

A 76-year-old female and an 80-year-old male, a married couple, both farmers, presented with a slow-growing skin-colored indurated plaque and an exophytic nodule on their left leg. They denied trauma or manipulation, had an unremarkable medical and family history, with no history of exposure to Human papillomavirus (HPV) infections nor industrial carcinogens such as arsenic, polycyclic aromatic hydrocarbons, and ionizing radiation. A wedge excision biopsy was done. Histopathologic findings of the 76-year-old wife revealed parakeratosis, scale crust, pseudoepitheliomatous hyperplasia, lobules of atypical keratinocytes with glassy eosinophilic cytoplasm, scattered dyskeratosis, and a dense infiltrate composed of lymphocytes, plasma cells, eosinophils and neutrophils while from 80-year-old husband revealed irregular epidermal hyperplasia, invasive lobules of atypical keratinocytes with foci of keratinization, with focal areas of dyskeratosis and atypical mitotic figures, and dense infiltrate composed of lymphocytes, neutrophils and eosinophils, both with a diagnosis of atypical keratinocytic proliferation consistent of SCC. PAS results were negative. Chest Xray, wound gram stain and culture, fungal culture, and tissue gene Xpert were unremarkable except for the presence of Klebsiella aerogenes and Staphylococcus aureus indicative of probable superimposed bacterial infection. They were both given oral antibiotics and referred to surgery service for further management. Despite the histopathologic findings and negative fungal culture, a 2-week course of oral itraconazole 200mg daily was initiated due to the patients' reluctance to undergo surgery, as well as the likelihood of deep fungal infection based on clinical data and potential occupational exposure, with noted significant improvement.

Conclusion:

We reported an unusual case of a deep fungal infection as SCC mimicker in a married couple. This emphasizes the importance of identifying SCC mimickers. In areas with limited resources, where advanced diagnostic tools may not be readily available, and patients who are amenable to surgery, a trial of therapy may be considered if there is a high clinical suspicion of deep fungal infections. Clinicopathologic correlation enhances diagnostic accuracy,

optimizes treatment outcomes, and improves patient care.

Tattoo-related molluscum contagiosum

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Introduction & Objectives:

A 37-year-old man with myasthenia gravis treated with azathioprine visited dermatology clinic due to multiple asymptomatic white papules over the black areas of his left arm tattoo. He had just touched up the black ink 3 months ago. Dermoscopy showed white four-leaved clover-like papules. Central umbilication was noted during cryotherapy. He denied any recent sexual contact history. Laboratory test showed no syphilis or HIV infection. Skin

Materials & Methods:
was diagnosed.
biopsy revealed a cup-shaped lesion with intracytoplasmic eosinophilic inclusion bodies. Molluscum contagiosum
cryotherapy. The defined any recent sexual contact history, Laboratory test showed no syphinis of the inflection. Skill

Nil.

Results:

Nil.

Conclusion:

Molluscum contagiosum is a common viral infection caused by molluscum contagiosum virus often occurring in children, immunocompromised patients, or people with sexual contact. It presents with multiple firm flesh to white colored umbilicated papules. Tattoo-related molluscum contagiosum infection may be related to contamination by the needle, ink or artist's saliva. It is a self-limiting infection but can be treated with cryotherapy or immunomodulatory topical drugs.

Hansen's Disease in the United States: A Systematic Review

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Introduction & Objectives:

Hansen's disease (HD), also known as leprosy, is a chronic infectious disease that is caused by the bacteria Mycobacterium leprae and, more rarely, by M. lepromatosis. It is primarily spread through respiratory droplets from person to person but can also be transmitted zoonotically from nine-banded armadillos and some other mammals. The condition commonly affects the skin, peripheral nerves, mucous membranes, and extremities and occasionally impacts internal organs. Patients often face chronic impairments in both their physical and mental health. A systematic review of all published U.S. cases of HD has not been undertaken prior. This study's aim was to characterize all scientifically published case reports and case series of HD diagnosed in the U.S.

Materials & Methods:

The following databases were systematically searched for case reports and series characterizing HD in the U.S. that had been published as of June 2, 2023: Medline (via PubMed), Embase, ISI Web of Knowledge, and Scopus. Full-text articles published in English that described cases of HD in the U.S. were included. No time restriction was applied. The strength of each study was evaluated by the Oxford 2011 Levels of Evidence criteria. All analyses and visualizations were performed in R statistical software (v.4.2.2; R Core Team 2023).

Results:

A total of 133 case reports and series, from 1896 to 2023, met selection criteria. From these, 328 unique cases were identified. Median age was 43 years (range: 3.5 - 87 years). Most cases were reported as male (79.9%) and White (51.5%), followed by 13.4% Asian and 10.4% Black. One-third presented to the National Hansen's Disease Program (NHDP) in Louisiana. State of residence and state of diagnosis trends aligned. A majority of cases were from the U.S. and resided in states providing NHDP resources. Prior to 1960, most cases were associated with military service abroad (86.5%); however, exact mode of transmission was usually unknown. Since 1980, a growing proportion of cases (22.8%) has been associated with likely zoonotic transmission. Skin biopsy remained the dominant diagnostic modality (61.6%) through 2023, with PCR utilized more since 2000. By Ridley-Jopling classification, most cases included in this review (47.3%) were lepromatous. By WHO classification, where applicable and reliable data were available, 21.8% were multibacillary and 8.3% were paucibacillary. Multi-drug regimens with rifampicin, dapsone, and clofazimine have dominated treatment protocols since 1980, but other antibiotics have been increasingly used over the past decade.

Conclusion:

Studies reporting on HD in the U.S. are limited. The objective of this systematic review was to analyze case reports and case series of HD in the U.S. Our analysis showcases potentially emerging trends such as increased zoonotic transmission in the southern U.S. Limitations included lack of complete information for a number of metrics. Furthermore, the included number of cases does not reflect the full scope of cases that have been reported to surveillance centers over the same time period. Nonetheless, historical surveillance studies did not capture the

level of detail which case reports and series provide. Further research is needed to clarify the burden of disease and changing racial distribution. A key insight from this review is that standardized reporting methods for diagnostics and treatment are needed in the study of HD in the U.S.

Erysipeloid cutaneous leishmaniasis treated with metronidazole/clarithromycin combination

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Introduction & Objectives:

Leishmaniasis is a tropical disease caused by a parasite transmitted to humans by the bite of a sandfly, mainly Phlebotomus. We report a case of an unusual presentation of erysipeloid cutaneous leishmaniasis (CL) treated with the association of Metronidazole and Clarithromycin.

Materials & Methods:

Case report

Results:

A 67-year-old woman presented with a 2-month history of swelling of the centrofacial region, with an erythematous and edematous plaque covering the centrofacial region (nose and cheeks) and reaching the eyelids, associated with the presence of hemorrhagic crusts on the tip of the nose; the episode was treated as a facial erysipelas with antibiotics. In the absence of improvement, the diagnosis of cutaneous leishmaniasis in its erysipeloid form was suspected, and then confirmed by a skin smear showing the presence of leishmania amastigotes. The patient was treated with a combination of metronidazole and clarithromycin for 15 days, with good progression.

Discussion:

Unusual clinical presentations of cutaneous leishmaniasis have been reported: psoriasiform, eczematiform, varicelliform, zosteriform, erysipeloid, lupoid, and sporotrichoid, depending on host immune status and Leishmania subspecies. The erysipeloid type is a rare and unusual presentation of cutaneous leishmaniasis, often leading to a late diagnosis. Its frequency is estimated at 3%. This type usually affects elderly women and presents as an erythematous, infiltrated plaque on the face resembling an erysipelas. The diagnosis is confirmed by the presence of amastigotes on a Giemsa-stained smear. Several treatment options are available; pentavalent antimonials remain the first treatment option for CL in most countries. In addition, the metronidazole-clarithromycin combination has been described as an effective therapeutic alternative with better tolerability. As our patient had a contraindication to pentavalent antimonials, we opted for the metronidazole-clarithromycin combination, with notable improvement.

Conclusion:

Because of its rarity, erysipeloid leishmaniasis is rarely presented as an initial diagnosis, often leading to a delay in its management.

"Treating Leprosy Reactions with Secukinumab: Pioneering Frontiers in a Secular Disease"

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¹UNICAMP Universidade Estadual de Campinas, Campinas, Brazil

Introduction & Objectives:

Leprosy, a neglected tropical disease caused by *Mycobacterium leprae*, remains endemic in several developing countries. Leprosy reactions (LR) are immune mediated inflammatory responses developing during the course of the disease, contributing as potential causes of neural sequelae and decrease of life quality in these patients. We describe a successful case of refractory type 2 LR treated with secukinumab, a human monoclonal antibody against IL17A, resulting in functional improvement and lesion resolution.

Materials & Methods:

We present a successful case of refractory type 2 LR treated with secukinumab.

Results:

A 25-year-old man of Latin origin presented to the dermatological outpatient clinic with type 2 LR, about 6-month after starting treatment of lepromatous leprosy with rifampicin, dapsone and clofazimine. The clinical picture was characterized by fever, chills, generalized edema, prostration and the presence of bright-red edematous plaques and nodules on the arms, legs and trunk. Some skin lesions evolved to blisters. Neuritis of fibular nerves were observed. The patient was using the multidrug therapy correctly, bacterial and viral infections were excluded, and all the contacts were examined and were free of the disease. Prednisone 1mg/kg/day and thalidomide 200mg/day were started with partial improvement, but patient experienced exacerbation of the cutaneous lesions when corticosteroid dosage was tapered. Over the course of one year, he was hospitalized three times due to type 2 LR symptoms and methylprednisolone pulses were prescribed, but little improvement was observed.

Secukinumab was prescribed to control type 2 LR following psoriasis dosage indication: 300 mg weekly during four weeks, followed by maintenance dose of 300 mg monthly. During the next three months after starting the anti-IL 17 monoclonal antibody, prednisone was tapering to 0,3mg/kg/day with no recurrence of the skin lesions nor neuritis. Patient was not hospitalized in this period.

Conclusion:

Multibacillary leprosy patients may experience prolonged reactional episodes, susceptible not only to inherent sequelae but also to therapy side effects. Cytokines like tumor necrosis factor-alpha (TNF- α) and IL-6 are implicated in leprosy and LR. Immunobiological drugs, such as etanercept and infliximab, have been used to treat LR as a sparing corticosteroid therapy and for recalcitrant cases. Recent advances in leprosy immunology have highlighted the involvement of IL-17. Blocking IL-17 interrupts Th1 and Th17 inflammatory pathways, with CD4+ IL-17-producing cells contributing to inflammation in leprosy reactions. Upregulation of Th17-associated cytokines suppresses T regulatory cells (Treg), which abundance has been linked to immunosuppression and bacilli proliferation. Balancing Treg and Th17 cells is crucial for host immunity, and the control of the cytokine levels consists in a therapeutic approach, regulating LR with minimal impact on immunological protection.

About a Rare Case of Chronic Cutaneous-Mucosal Candidiasis

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Introduction & Objectives:

Chronic cutaneous-mucosal candidiasis (CCMC) is a rare condition, characterized by a susceptibility to develop a chronic or recurrent infection with yeast of the Candida spp. genus, affecting the skin, nails, and mucous membranes. We report a case of CCMC associated with trichophytosis and a T lymphocyte immune deficiency

Materials & Methods:

A three-year-old boy has been experiencing crusty nodules on his scalp and circular lesions on his face along with oral thrush since the age of one. Despite several prescribed treatments, there was no improvement. Clinical examination revealed onychosis and paronychosis accompanied by periungual pustules, parakeratosis, and total onycholysis of the nails on both hands and the third toe of the left foot. Additionally, a whitish coating covered the entire oral mucosa, and erythematous annular lesions were observed on the forehead and the edge of the left ear, along with crusty nodules on the scalp. Blood tests showed hemoglobin levels at 9.8 g/dL and leukocytes at 13,480/mm3 with 9,340/mm3 neutrophils. Serum protein electrophoresis indicated a chronic inflammatory reaction. Immunophenotyping of lymphocyte subpopulations revealed CD8+ levels at 275/mm3, CD56+ levels at 261/mm3, a CD4+ / CD8- ratio of 2.28, and CD3+ levels at 1165/mm3. Candida serology returned positive results. Mycological samples from the nails, oral mucosa, scalp, and skin were all positive for Candida albicans, with mycelial filaments detected in the scalp sample. Stool examination for parasites also yielded positive results for Candida. Treatment with Amphotericin B oral suspension at 1 ml 6 times a day for 2 weeks, in combination with local antifungal therapy, led to improvement in the lesions. Further investigation for APECED syndrome is currently underway.

Results:

Cutaneous-mucosal candidiasis (CMC) typically emerges before the age of 5. The immune response against Candida spp. involves both innate and adaptive mechanisms. Adaptive immunity encompasses pathways mediated by interleukins IL-17 and IL-22, primarily produced by Th17 cells. Genetic mutations, such as signal transducer and activator of transcription 1 (STAT1) and autoimmune regulator (AIRE), are known to cause immune system dysfunction in certain types of CCMC. Effective immune response against C. albicans relies on epithelial cell recognition. Any CCMC case resistant to adequate antifungal treatment in children warrants further investigation for underlying endocrinopathies and autoimmune diseases. Dermatophyte infections are also prevalent among CMC patients. Current management strategies for CCMC primarily involve prophylactic antifungal agents like fluconazole, with additional therapeutic options including granulocyte-macrophage colony-stimulating factor (GM-CSF), histone deacetylase (HDAC) inhibitors.

Conclusion:

This case emphasizes the significance of promptly initiating antifungal therapy and conducting screenings for autoimmune diseases in patients affected by this rare pathology, with the goal of reducing morbidity and mortality linked to this condition.

Herpes zoster at the site of erysipelas: Wolf's isotopic response: Study of two cases

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Introduction & Objectives:

Wolf's isotopic response refers to the phenomenon where a new skin condition appears exactly at the site of another unrelated and already healed skin disease.

We report here two cases of an unusual manifestation of herpes zoster at the site of a healed erysipelas.

Results:

First case:

A 44-year-old female patient with a history of right breast cancer treated by surgery and radio-chemotherapy consulted us with a unilateral pruritic rash that had been evolving for two days in a febrile setting. The patient was treated with penicillin G intravenously. After one week, dermatological examination revealed multiple vesicles grouped in clusters over an inflammatory plaque on the hemithorax and right arm. The diagnosis of Th1-Th5 right thoracic herpes zoster on healed erysipelas was confirmed. The patient was treated with oral Valaciclovir for one week, with a good clinical course.

Second case:

A 71-year-old patient with a history of insulin-dependent diabetes, hypertension, and atrial fibrillation consulted us for an inflammatory plaque on the right leg evolving for six days in a febrile context. Dermatological examination showed an erythematous, warm, and painful plaque on the leg with the presence of grouped vesicles following the L4 dermatome. The diagnosis of herpes zoster overlying erysipelas of the right leg was made. The patient was treated with intravenous Penicillin G and Aciclovir, with a good clinical outcome.

Conclusion:

The isotopic phenomenon of Wolf was first described in 1955 by Wyburn-Mason, who noted the occurrence of malignant skin tumors at the site of a previous herpetic eruption. Since then, numerous cases of Wolf's isotopic response have been documented in literature, with the initial dermatosis being, in the majority of cases, a herpetic infection, primarily herpes zoster, less commonly chickenpox or vitiligo. The subsequent dermatoses that develop are predominantly tumoral and granulomatous, with others being infectious (secondary syphilis, molluscum contagiosum), inflammatory and dysimmune (rosacea, sarcoidosis, psoriasis, morphea, lichen planus, lichen sclerosus, lupus, pemphigoid). However, the precise physiopathology of this phenomenon remains largely unknown. Several mechanisms may be considered, including viral, vascular, and immunological factors. In postherpetic cases, one hypothesis suggests that damage to sensory nerve fibers by the herpes virus may trigger local immune dysregulation, thus promoting the development of a new dermatosis.

These two reported cases illustrate an extremely rare occurrence of Wolf's isotopic response, where herpes zoster appeared at a previous site of erysipelas. Only one case has been previously reported in literature.

onchocerciasis: forgotten but not quite gone

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Introduction & Objectives:

Onchocerciasis commonly known as "river blindness", is one of the neglected tropical diseases caused by the parasitic worm Onchocerca volvulus which is transmitted to humans through bites from infected Simulium blackflies. It is characterized by severe itching, disfiguring skin conditions, and visual impairment, including permanent blindness.

Despite all the efforts made to eradicate the disease, it often goes undiagnosed or there is a long delay in diagnosing the condition due to a lack of dermatology specialists in endemic areas, lack of knowledge on the disease by primary physicians who often are the first ones to have contact with the patient. The delay in diagnosis and consequently treatment results in reduced quality of life of patients due to the intense itch and other cutaneous manifestations.

Materials & Methods:

This is a case of a 25-year-old male with a 15-year history of severely itchy papules and later nodules affecting the extremities, trunk, and eventually the face. In the 15 years, the patient has attended several health facilities and been treated for various dermatological skin conditions like scabies with no improvement. He denied the use of traditional medication but reports self-medication on drugs he believed to relieve his itch, especially dexamethasone. The patient reports that the severe itch affected his daily life negatively as he was unable to sustain a job making him believe he was bewitched. Three weeks before attending our facility he reported that new lesions appeared on the face and had a history of fever, visual disturbance, and sore throat this prompted him to seek medical attention.

He presented with generalized hypo-pigmented macules on the trunk, and upper and lower extremities with skin-colored papules on the chest and face. Multiple nodules on the fingers and wrist joints. Hanging groin with inguinal lymphadenopathy and pharyngeal erythema.

Results:

Skin biopsy revealed reactive acanthosis spongiosis and epidermal ulceration, suggesting infestation.

The patient was started on ivermectin 1.2mg stat, doxycycline 100mg OD, and betamethasone ointment with promethazine 25mg nocte. He reported improvement of itch with no new lesions. A month later patient had no new lesions but reported that the itch was still severe.

Conclusion:

To avert missed diagnoses, it's crucial to educate primary health care workers on early identification, treatment, and timely referral of patients. Furthermore, heightened attention is required for mass drug administration in regions with high disease prevalence. Psychological support is also imperative for patients, considering the substantial toll the illness takes on their quality of life.

histoplasmosis duboisii

Maria Konana Kindi

Introduction & Objectives:

Histoplasmosis is a chronic granulomatous disease caused by fungus histoplasma capsulatum, with two classical variants histoplasma variant capsulatum and variant Duboisii also known as African type.

Although both variants are common in Africa, Variant Duboisii is restricted to Africa being endemic in West and Central Africa.

Despite an increase in cases of histoplasmosis Duboisii in African, there is a gap in the treatment due to lack of a specific therapeutic guideline for African histoplasmosis

Materials & Methods:

43 years old male from Tabora- Western Tanzania, with one year history of multiple umblicated papulo-nodular lesions of legs and arms. The lesions progressively increased in number and size over time, associated with pricking sensation, non pitting lower limbs edema and inguinal lymphadenopathy.

Results:

Skin biopsy revealed granulomatous inflammation on the dermis, multinucleated giant cells and numerous oval yeast.

Note: HIV-negative.

Patient was started on oral fluconazole 300mg daily for twelve month, the lesions have significantly reduced in number and size with no new eruptions.

Conclusion:

Adequate treatment with antifungal therapy is critical to reduce the likelihood of relapse and to prevent disease dissemination. Adopted guidelines recommend amphotericin B and Itraconazole as the first line management for severe and moderate histoplasmosis, both drugs are expensive, hardly available with high intolerance and resistance rate in our setting.

This has significantly limited adequate treatment of histoplasmosis, its therefore important for clinicians to highly consider readily available and affordable drugs such as fluconazole to enhance compliance and full course treatment of Histoplasmosis Duboisii in Africa.

Lymphadenitis caused by Bartonella henselae in a 16-years-old patient.

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Introduction:

Cat scratch disease (CSD) remains the most commonly identified clinical syndrome associated with Bartonella infection. CSD is an infectious disease that usually presents with fever, headache, loss of appetite, weight loss, tender lymphadenopathy, and other symptoms. This contagious disease most often results from a young cat scratch or bite.

Case report:

We present the case of a 16-year-old man, with no relevant history, who was referred because of a nodule on right groin. He related it to intense trauma in that area. He had no fever or other accompanying symptoms. At Emergency Department, ultrasound imaging showed cellulitis with a right inguinal abscess, in relation to abscessed lymphadenopathy. The abscess was drained. Culture and serologies for sexually transmitted diseases were negative. He received treatment with amoxicillin-clavulanic acid and clindamycin with no lesion resolution. When we saw the patient in Dermatology Department, he had an erythematous, infiltrated lesion with a granulomatous and friable appearance. Lymph node biopsy showed granulomatous and suppurative necrotizing lymphadenitis and a positive serology confirmed the diagnosis of CSD. Subsequently, azithromycin was administered with complete resolution of symptoms.

Discussion:

The most typical clinical presentation of CSD is a regional lymphadenopathy that commonly involves a single node of cervical and axillary lymph nodes. Inguinal localization is less frequent. The course of this disease depends on the patient's immune status. In immunocompetent patients the symptoms resolve within eight weeks, with, or without antibiotic treatment. This case illustrates the importance of an exhaustive clinical history, physical taking and performing a biopsy even in immunocompetent patients. It should always be included in the differential diagnosis of lymphadenopathy for adults.

Beyond the Conventional: Non-Sexually Transmitted Secondary Syphilis in Childhood with Multiorgan Involvement

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Introduction

Syphilis remains a global public health concern (1). Primarily transmitted through sexual fluids or blood, typically diagnosed between 15 and 49 years (2). Pediatric cases often stem from transplacental transmission, birth canal or sexual abuse. However, non-sexual transmission, has been rarely reported (3). We present a rare case in a 2-year-old girl, with no history of sexual exposure, diagnosed with secondary syphilis not limited to the skin. This highlights the global burden of syphilis and its non-sexual modes of transmission.

Methods

A previously healthy 2-year-old girl presented with a one-week history of ankle edema and tenderness, fever, nasal congestion, watery diarrhea, and urticarial rash on the thighs and abdomen with palmoplantar desquamation.

She underwent multidisciplinary evaluation. Paraclinical tests revealed elevated acute phase reactants, leukocytosis, thrombocytosis, and reactive FTA-ABS and VDRL at 1:256. Further, she developed nephrotic syndrome and secondary polyserositis, with cerebrospinal fluid pleocytosis. Sexual abuse was ruled out, but maternal history indicated recent positive non-treponemal test coinciding with an episode of mastitis while breastfeeding and an episode of gingivitis in her daughter. The mother also mentioned feeding her daughter prechewed food.

The patient was diagnosed with secondary non-sexually transmitted syphilis with multisystemic involvement and was treated with crystalline penicillin 500,000 U IV every 6 hours for 10 days, showing resolution of symptoms.

Results

Syphilis is a chronic infectious disease caused by the bacterium Treponema pallidum. Currently, the World Health Organization reports 7.1 million new cases, highlighting its high prevalence (1). Syphilis in children under 15 years of age primarily focuses on congenital syphilis and sexual transmission (4–6). However, non-sexual transmission of syphilis in this age is rare, with only a few reported cases available, hindering a precise understanding of its true extent (3,7–10).

Non-sexual transmission of syphilis in children primarily occurs through close contact, including kissing, breastfeeding, feeding with pre-chewed food, sharing utensils and contact with contaminated items. These practices are more prevalent in developing countries with lower levels of education (3,8,9,11).

Syphilis has been named the great imitator because of the disease's capacity to induce diverse clinical manifestations (10). Regarding secondary syphilis, there is variety of signs and symptoms, including constitutional symptoms and multiorgan involvement (Fig. 1) (12–14). Skin involvement, present in more than 20% of patients at this stage with a very diverse presentation (Fig. 2) (13–16).

The diagnosis relies on clinical and paraclinical evaluation with non-treponemal tests and treponemal tests (2,17). Timely treatment of syphilis is crucial to avoid complications and ensure resolution of symptoms. Usually, intramuscular penicillin G benzathine is recommended, but in neurologic (as our patient), ophthalmic, or otic manifestations, intravenous crystalline penicillin G is preferred (14,17).

Conclusion

Syphilis presents several challenges, especially in pediatric cases, where sexual abuse must always be ruled out, but non-sexual transmission must also be considered. Early diagnosis and proper treatment are essential to prevent serious complications and combat this persistent public health problem.

Figure 1**

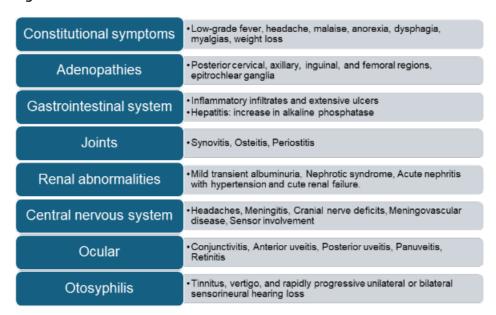
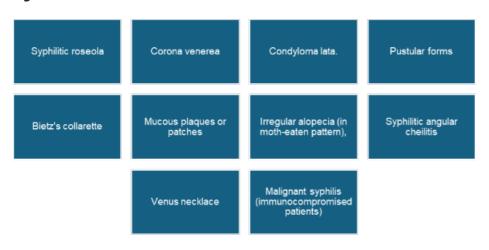


Figure 2**



coinfeccion leishmaniasis hpv

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Introduction & Objectives:

Leishmaniasis is a chronic parasitic disease, transmitted by a sand fly infected with promastigotes. It can remain in the skin or spread to internal organs or the mucosa, thus presenting three clinical forms: Cutaneous, mucosal and visceral.

Materials & Methods:

We present the case of a 44-year-old male from Bolivia who present dysphonia and palatal lesions associated with facial skin lesions, with results of complementary studies compatible with cutaneous leishmania and HPV infection.

Results:

A 44-year-old male with no significant medical history, referred by the otorhinolaryngology service due to dysphonia and palate injury. During questioning, the patient reported fever, weight loss, and night sweats. On physical examination, a bleeding ulcer was observed in the left nostril extending to the philtrum, covered with serohematic crust, with deviation of the nasal septum to the right. Additionally, an erythematous papillomatous plague was identified on the hard palate, extending to the soft palate

A skin biopsy was performed with a suspected diagnosis of mucocutaneous leishmaniasis, vs orofacial tuberculosis vs mycosis. Skin samples were sent for mycobacterial cultures. Direct examination confirmed the presence of amastigotes, diagnosing leishmaniasis.

Complete laboratory tests were also performed without pathological findings. Serologies were negative.

We performed a A CT scan of the brain, neck and chest that showed compromise of the upper airway at the mucosal level. Soft palate biopsy taken by the otorhinolaryngology service compatible with HPV cytopathic effect with positive PCR for HPV subtypes 6 and 31. In view of the above, we concluded the diagnosis of leishmania-HPV co-infection. It was decided to make an interconsultation with the infectious disease service to start treatment. The patient evolves favorably with good tolerance to medication and with resolution of mucosal skin lesions and dysphonia.

Conclusion:

This case highlights the importance of recognizing leishmaniasis as a neglected disease of high prevalence in certain regions, including our environment. Underline the need for early diagnosis and timely treatment to avoid complications. Furthermore, highlight the association between oropharyngeal SCC and HPV of high oncogenic risk.

Lucio's Phenomenon associated to dual infection of Mycobacterium leprae and lepromatosis: A first case in Latin America.

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Introduction & Objectives:

Lucio's phenomenon (LP) is a special type of leprosy reaction, usually observed in untreated diffuse lepromatous leprosy (DLL) and is a life-threating medical emergency. Since the discovery of Mycobacterium *lepromatosis* in 2008, only few cases have been reported with this unusual association.

Materials & Methods:

We present a case of a 53-year-old man from Mexico, previously diagnosed with polyneuritis that came for the evaluation of a 6-month history of plaques over the limbs. He had worked as a farmer for 25-years and reported contact with nine-banded armadillos. Physical examination revealed madarosis, saggy and stretched earlobes; painful red-violaceous plaques, ulcers, hematic crusts, and eschars on the lower limbs. No systemic symptoms were present. Histopathology of the edge of an ulcer revealed a perivascular lymphohistiocytic infiltrate with Virchow's cells along with vasodilation, vascular thrombosis, and endothelial cell wall proliferation. Fite-Faraco stain revealed acid-fast bacilli on the lumen of vessels and endothelial cells. Laboratory tests showed increased levels of C-reactive protein and erythrocyte sedimentation; with positive results for anticardiolipin, antiB2-glycoprotein and anti-Mycobacterium leprae specific phenolic glycolipid-1 antibodies. Molecular studies detected a dual infection of M. *leprae* and M. *lepromatosis*. These findings confirmed the diagnosis of DLL with LP. Treatment was promptly established with multibacillary multidrug therapy, oral prednisone and pentoxifylline. After 6 months of follow up, the patient remained with complete healing of the ulcers and improvement of the neurological symptoms.

Results:

LP is a rare manifestation among lepromatous patients and a challenging diagnosis with a severe evolution and high mortality. Only 3 cases worldwide have been reported with dual infection in LP, two cases in Singapore and one Indonesia. This is the fourth case worldwide and the first in Latin America. Histopathologic study of occlusive vasculopathic lesions is the first step to achieve and accurate diagnosis.

Conclusion:

As dermatologists we should take awareness of these challenging and underdiagnosed leprosy reaction. Molecular and epidemiological studies will be important to determine the routes of transmission and control of both infectious agents.

Five cases of Mycoplasma Pneumoniae-induced Rash and Mucositis (MIRM): Clinical features and outcomes among a case series in 2023/2024

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Introduction & Objectives:

Reactive infectious mucocutaneous eruption (RIME) describes a severe mucocutaneous adverse reaction that occurs predominantly in children and adolescents following bacterial or viral infection, most commonly *Mycoplasma pneumoniae*. In cases specifically associated with *M. pneumoniae*, the term *Mycoplasma pneumoniae*-induced rash and mucositis (MIRM) has been used since 2015. Although uncommon, we describe a series of 5 cases presenting at one Hospital in the United Kingdom between October 2023 and January 2024.

Materials & Methods:

Electronic notes were reviewed and data collected on demographics, disease course, morphology, investigations, management and length of hospital stay. Informed consent for medical photography was obtained.

Results:

There was a 4:1 male predominance with a median age of 17 years. All patients had a prodrome of cough and pyrexia which preceded mucocutaneous symptoms. Oral mucositis was the commonest feature, followed by conjunctival and genital involvement. Interestingly, all our patients had <5% body surface affected with either atypical target or vesiculobullous lesions. One patient had transient erythematous papules. Acute M. pneumoniae was confirmed by polymerase chain reaction (PCR) on a respiratory pathogen panel in 4 cases. One patient had positive IgM mycoplasma serology in keeping with recent infection. Pneumonia was radiologically confirmed in 2 cases. Management included specialist multidisciplinary team input from Paediatrics, Oral & Maxillofacial surgeons, Microbiology, Ophthalmology, Urology, Critical Care and Dermatology. Three of the five patients were managed at ward level. A 9-year-old boy with asthma required High Dependency Unit (HDU) care whilst a 19-year-old man required intubation and ventilation on the Intensive Care Unit (ICU) due to hypoxia and upper airway compromise. All patients were treated with Clarithromycin, with one subsequently switched to Levofloxacin. Aciclovir was given until Herpes Simplex Virus PCR swab results were confirmed as negative. Both HDU and ITU patients received high dose intravenous hydrocortisone for 7 days. There were no new preceding medications except in the ITU patient who had had amoxicillin for 48 hours prior to the onset of his symptoms. However, the cutaneous involvement remained limited and the clinical features were more in keeping with MIRM as opposed to Stevens-Johnson Syndrome (SJS). The median length of hospital admission was 7 days and all patients made a full recovery with no physical long term sequelae.

Conclusion:

Our results describe the demographics, prodromal features, disease course and morphology of 5 patients presenting with MIRM, which falls under the umbrella term of RIME. Our cases are in keeping with those described in the literature. Mucositis is the key feature with limited skin involvement which, if present, is mostly vesiculobullous. Along with supportive care, antimicrobial treatment with macrolides, tetracyclines or fluoroquinolones is the mainstay of treatment. Evidence for adjunctive immunomodulatory treatment is

limited. There are no evidence-based guidelines for managing RIME but distinguishing it from other severe mucocutaneous reactions, such as SJS, is important. It is a distinct clinical entity which is infection driven and overall has a milder disease course and excellent prognosis. Further studies and evidence-based guidelines are required in this emerging field.

Hyperkeratotic scabies: an 8 case series

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Introduction & Objectives:

Scabies poses a public health problem in several countries worldwide. The crusted form, known as hyperkeratotic scabies (HS) or Norwegian scabies, is a rare and highly debilitating form. The aim of our study was to determine the epidemiological, clinical, and therapeutic characteristics of HS.

Materials & Methods:

Monocentric retrospective study of HS cases diagnosed in our department over a period of 20 years (2004-2023).

Results:

We included eight cases of hyperkeratotic scabies (HS), with ages ranging from 4 months to 70 years, with a male-to-female ratio of 3/5. The mean consultation delay was 3.5 months. Pruritus within the family was found in 4 cases (50%), while personal pruritus was present in only 3 cases (37.5%). Three patients had a history of previous chronic dermatosis: one with plaque psoriasis (PP), one with hereditary epidermolysis bullosa, and one with atopic dermatitis. Four patients (50%) were already receiving local or systemic corticosteroid therapy at symptom onset.

Clinical examination revealed erythematous scaly and crusted eruptions in seven cases (87.5%) and a generalized papulovesicular eruption in the remaining case, in a 4-month-old infant. Palmoplantar keratoderma (PPK) with thick yellowish scales and fissures was found in 5 cases (62.5%). Facial involvement was noted in only one case, and earlobes were affected in 2 cases.

Dermoscopy, performed in only one patient with PP, showed the "delta-plane" sign, raising suspicion of superimposed scabies. Parasitological examination in 5 patients identified Sarcoptes scabiei.

All patients and their family members were treated with benzyl benzoate (BB) for 5 to 7 days. Oral ivermectin was prescribed for 2 patients. Clinical evolution was favorable in all patients, but a second course of BB was necessary for 2 patients.

Conclusion:

HS, a very rare form of scabies, is extremely contagious. It is most commonly observed in elderly individuals, immunocompromised patients, or those treated with local or systemic corticosteroids, as was the case for 50% of our patients. Additionally, scabies can affect previously healthy individuals or those with pre-existing dermatoses, leading to a modification of the clinical appearance of HS and delayed diagnosis.

The inflammatory lesions observed in HS are due to a deficient delayed hypersensitivity reaction leading to massive replication of the mites, Sarcoptes scabiei var. hominis. Consequently, the stratum corneum thickens, mimicking other dermatoses such as psoriasis, ichthyosis, and Darier's disease, thus delaying treatment and increasing the risk of contagion.

The diagnosis of HS is based on the specific clinical appearance with the presence of at least one site of

hyperkeratosis, associated with considerable parasitic proliferation on dermoscopic or parasitological examination. Thick yellowish palmoplantar keratoderma, sometimes isolated in infants, strongly suggests the diagnosis. Unlike typical scabies, the face may be affected in HS, and pruritus may be absent, as was the case for 62.5% of our patients.

Recommendations advocate for treating patients and contacts with topical scabicides and oral ivermectin. The prognosis is generally good, but complications may occur in cases of immunosuppression.

HS is poorly understood, and its diagnosis is often delayed, emphasizing the importance of considering this diagnosis in the presence of any chronic crusted lesion, even in the absence of pruritus.

Larva migrans in 8 years old child with autism-case report

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Introduction & Objectives:

Cutaneous larva migrans is a parasitic skin infection, presented as a migratory eruption of the skin characterized by creeping or moving parasite larvae in the skin. It is caused by larvae of several nematode parasites of the hookworm family (Ancylostomatidae) that usually infest cats, dogs and other animals. Humans can be infected with the larvae by contact with soil or sand contaminated with animal faeces. It is most commonly found in tropical or subtropical geographic locations, and it is very rare in temperate regions as our country, North Macedonia.

An 8 -year-old boy with autism presented for evaluation at our clinic in July 2023. The child was agitated and irritated, so his parents noticed skin changes on his left foot and decide to consult dermatologist. Dermatological examination revealed well defined erythematous serpentine tract measuring 7-8 cm in length and 3-5 mm in width, associated with edema and central black line within the erythematous area at the upper end, measuring approximately 2 cm. The child had been in contact with dogs and cats, and the skin changes appeared a few hours before the examination. The erythema was spreading simultaneously with the movement of the black line on the surface of the skin on the lower side of the left foot, accompanied by a subjective burning sensation. Dermoscopy examination confirmed a brownish linear tract suggestive of cutaneous larva migrans body, serpiginous pinkish erythematous background, brown dots with zone of scales and yellow-white linear structures suggesting empty larval tract. Laboratory tests revealed elevated eosinophil levels (Eo=5.2). Treatment was initiated with Albendazole 200 mg tablets twice daily for 5 days, local cryotherapy, corticosteroid therapy, and oral antihistamines. After 10 days of treatment, the dermatological status improved.

Conclusion: Larva migrans is usually a clinical diagnosis, however dermoscopy can be useful in confirming active or residual stage of infestation.

Long-standing Undiagnosed Cutaneous Tuberculosis: A Case Report

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Introduction: Tuberculosis verrucosa cutis (TVC) is a form of cutaneous tuberculosis that arises from exogenous inoculation through open wounds in individuals who have previously had tuberculosis infection or acquired immunity. It typically begins as a small purple papule on the hands or extremities, progressing towards a verrucous or hyperkeratotic lesion. The PPD test typically results in a positive outcome. We present a case of TVC that remained undiagnosed for approximately 10 years.

Materials & Methods: A 70-year-old male patient presented to our clinic with complaints of a raised lesion on the skin of his left hand. He reported the presence of papulonodular lesions with a verrucous appearance that had started on the dorsal aspect of his left hand approximately 10 years ago and had subsequently spread to the fingers and palmar region. It was noted that several cryotherapy sessions had been performed at an external center with a preliminary diagnosis of verruca vulgaris. The patient, who had no other medical conditions, was engaged in livestock farming. A biopsy was taken from the lesion and subjected to histopathological examination, revealing hyperkeratosis, irregular acanthosis, and infiltration consisting of lymphocytes, histiocytes, and multinucleated giant cells in a diffuse and nodular pattern in the subepidermal area. Although rare karyorectic cells were observed, caseous necrosis was not clearly evident. The patient's PPD test yielded a value of 15 mm, and a recent Quantiferon test was positive. Mycobacterium tuberculosis polymerase chain reaction(PCR) test from the tissue sample was negative. No pathology was detected on chest X-ray and thoracic CT scan. Based on clinical and histopathological findings, the patient was diagnosed with TVC. Treatment with isoniazid, rifampicin, ethambutol, and pyrazinamide for 2 months followed by isoniazid and rifampicin for 4 months resulted in improvement of the lesions.

Results: Cutaneous tuberculosis is a rare form of extrapulmonary tuberculosis, classified as primary or secondary. Primary infection manifests as acute disseminated miliary tuberculosis via inoculation or hematogenous spread, especially in individuals, particularly children, who have not previously been exposed to the bacillus. Secondary infection occurs through reinfection or reactivation.

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Occupational exposure is prominent. Clinically, it may mimic conditions such as blastomycosis, chromomycosis, non-tuberculous mycobacteria. In our patient, histopathological evaluation and tissue PCR aided in distinguishing deep fungal infections and non-tuberculous mycobacteria. The histopathological features of TVC are characteristic for diagnosis. Typical granulomas (tubercles) containing Langhans-type giant cells and epithelioid cells are seen, and typically negative cultures. Granulomas formed by epithelioid cells were detected in biopsy material from our cases' lesions. Clinical correlation, special stains, and culture may be required to confirm the diagnosis. Culture sensitivity is low, and results may take weeks. PCR has emerged as a rapid, highly sensitive, and specific diagnostic method.

Conclusion: This case underscores the importance of clinical history, lesion progression, and histopathological changes seen in serial biopsies in the diagnosis of tuberculosis verrucosa cutis, as well as the significance of the

patient's response to treatment in confirming the diagnosis.

An atypical presentation of cutaneous tuberculosis infection on the nose

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Introduction

Cutaneous tuberculosis is the least common presentation of extrapulmonary tuberculosis, accounting for less than 2% of cases. We present a case of cutaneous Mycobacterium tuberculosis on the nose of a patient.

Case report

A** 37-year-old female, consulted to our dermatology department presenting a brown-reddish plaque located on both the bridge and tip of the nose, with apple-jelly appearance under diascopy, she first noticed them a year and a half ago. The patient had a personal medical history of HIV infection under antiretroviral treatment. A first skin biopsy was performed which reported nodular dermatitis with tuberculoid granulomas. Special stains and molecular tests were negative, and topical steroid treatment was prescribed. At the three- month follow-up appointment the plaque exhibited no changes. Consequently, a second biopsy was performed on one of the largest papules. The biopsy revealed the presence of tuberculoid and sarcoid granulomas, and special stains (Ziehl-Neelsen and Fite-Faraco) were negative for mycobacteria. However, molecular tests, Polymerase chain Reaction were positive for Mycobacterium tuberculosis; the infectious diseases department was consulted for this case, and a new sample was requested for GeneXpert and culture specimens. This yielded a positive result for M. tuberculosis. Based on these results, a multi-drug treatment plan was established.

Discussion:

Lupus vulgaris represents the most common form of extrapulmonary tuberculosis, accounting for 1.5% of all cutaneous tuberculosis infections. It is a paucibacillary form of the infection due to direct inoculation, hematogenous or lymphatic spread, as well as exogenous infections in a much lesser frequency. Patients present a strong response to tuberculin tests. Nevertheless, a negative test result may indicate a state of immunosuppression, increasing up to 19% the likelihood of visceral tuberculous involvement.

A number of clinical variations have been described. Most cases present on the head and neck; other countries, as India, have reported other topographies, like buttocks or extremities. It is described as a solitary red-brown soft papule with a smooth surface that enlarges gradually, forming an irregular edge plaque with psoriasiform scales.

Histologically, is characterized by the presence of tuberculoid granulomas in the reticular dermis, formed by epithelioid cells and Langhans-type giant cells surrounded by abundant lymphocytes; bacilli are rarely seen on tissue and cultures are positive in only 6% of cases. M. tuberculosis DNA detection can be performed in tissue samples; with sensitivity and specificity of 25-100% and 75-100%, respectively; fortunately, interferon-gamma release assay has sensitivity up to 92% and specificity of 76%, both tests complement the clinicopathologic evaluation.

Systemic therapy is required consisting of bactericidal phase followed by a phase to eradicate remaining bacteria. The choice of a regimen is influenced by comorbidities and immune status, as well as local mycobacterial resistance patterns.

Conclusion:

Despite a recent decline in the incidence of tuberculosis, it persists in some countries, particularly those with a high prevalence of HIV/AIDS, such as Mexico. Cutaneous tuberculosis has emerged as a secondary manifestation of multidrug-resistant pulmonary infection.

Esketamine in acute herpes zoster-associated pain: a retrospective analysis of two matched cohorts

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Introduction & Objectives:

Herpes zoster, caused by reactivation of the varicella zoster virus, is a significant public health issue with a lifetime risk of 25-30%. The disease is characterized by skin lesions accompanied by often severe pain. Current treatment methods often provide insufficient pain relief and are associated with adverse effects and drug interactions. This study investigates the efficacy of esketamine, a potent n-methy-d-aspartat receptor antagonist, as an adjunctive treatment for acute herpes zoster- associated pain compared to antiviral and standard analgesic therapy only.

Materials & Methods:

In this retrospective study, we matched twenty-one patients treated with esketamine added to standard antiviral and analgesic treatment with an equivalent group of twenty-one patients who only received standard therapy. These participants were selected from a total of 230 patients with herpes zoster treated at the Department of Dermatology, State Hospital Wiener Neustadt, Austria between December 2017 and November 2020. Matching was based on age, sex, and baseline pain levels. The primary outcome measure was the change in pain levels, assessed by the visual analogue scale, before and after treatment. Propensity score matching and a mixed analysis of variance design were used for the statistical analysis.

Results:

In both treatment groups, significant reductions in the visual analogue scale scores were observed by the end of treatment with no statistically significant difference between the two groups. A small percentage of patients in the esketamine group versus none in the standard therapy group needed less (co-)analgesics of steps I to III on the WHO ladder by the end of treatment.

Conclusion:

Esketamine, when added to antiviral and analgesic therapy, did not provide additional benefit in alleviating herpes zoster associated pain. A potential benefit of esketamine warrants a large-scale prospective randomized study.

Atypical cutaneous mycobacterial infection caused by M. avium

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Atypical cutaneous mycobacterial infection caused by M. avium

Introduction & Objectives:

Atypical mycobacterial infections are rare infections caused by a species of mycobacterium other than M. tuberculosis and M. leprae. Usually, M. avium-intracellulare and M. kansasii cause lung disease similar to pulmonary TB, while M. marinum, M. ulcerans, M fortuitum and M. chelonae cause skin infections. We present a 54-year-old female immunosuppressed patient diagnosed with rheumatoid arthritis and multiple sclerosis who had long-lasting ulcers on right hand.

Materials & Methods:

The patient is working as an animal breeder. She has history of systemic treatment with corticosteroids, methotrexate and hydroxychloroquine for the underlying rheumatoid arthritis and betahistine for multiple sclerosis. In the last 3-4 months she recognized two uncommon painful ulcerative nodules with purulent secretion on her right hand. The patient started topical treatment with ichtammol 50%, betamethasone and fusidic acid for several days without therapeutic results. The patient was in a good general condition without fever, swollen lymph nodes, fatigue, weight loss or shortness of breath. She had history of diarrhea and constipation two months before the dermatological lesions.

Results:

Following the dermatological symptoms, series of diagnostic evaluations were undertaken. Blood test showed elevated ESR (29.0 mm/h). Laboratory investigation of urine showed leukocytosis (689.9 µl) and hematuria (176.8 µl). The patient underwent a control pulmonary x-ray where no abnormalities were found. Then, Mantoux tuberculin skin test was provided and negative result was observed. Skin biopsy was taken and the histology revealed atypical mycobacterial infection with tuberculid, palisading, and sarcoid-like granulomas in the context of a diffuse infiltrate of foamy histiocytic cells. On genotype CM/NTM DR identification M. avium was isolated. On the final examination the patient went under ELISA based QuantiFERON assay with positive result.

In this case, we considered contact transmission of Mycobacterium avium-intracellulare infection as a result of tight contact with animals. The patient was managed with a multidisciplinary approach involving dermatologists, rheumatologists, cardiologist and neurologist. Systemic treatment with Rifampicin 600 mg daily for 2 months in a roll with good therapeutic results. The medicine was discontinued when herpes zoster infection occurred.

Conclusion:

The cutaneous atypical mycobacterial infection which was considered in our patient is very rare base of the cause and infection transmission. The prompt diagnosis and multidisciplinary approach are crucial for optimal patient outcomes. Long-term management strategies for imunosupressed patients with new onset of skin lesions should be under suspicion of atypical mycobacterial infection.

Clinico-epidemiological profile of pure neuritic hansen disease in north karnatka region of India

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Introduction & Objectives:

Leprosy is one of the oldest diseases; endemic in India with high social stigma and decreased quality of life. It is most common treatable cause of neuropathy. Leprosy however can involve nerves alone. In the absence of skin lesions, there is a greater possibility of missing the diagnosis particularly due to variety of pure neural manifestations that may mimic other peripheral neuropathies. This study has been carried out to address this issue to identify the profile of pure neuritic leprosy reporting to a Tertiary Care Centre in North Karnataka region of India.

Materials & Methods:

Patient's records with diagnosis of pure neuritic leprosy who reported to dermatology out patient department of tertiary care centre in North Karnataka region of India between 2016 to 2023 were studied. Demographic details, clinical presentation, pattern of peripheral nerve involvement, type of disabilities was noted. Data collected and analysed shows that out of total 225 leprosy cases of all types, 36 patients had been diagnosed with pure neuritic form.

Results:

The mean age was 33 years. Males were affected more than females. The various presentations were sensory loss, tingling, pain, hypoesthesia, trophic ulcer, and various grades of motor disabilities. Pure sensory involvement was more commonly noted. Mononeuropathy was more commonly seen. Claw Hand was the most common paralytic deformity. In lower limb, foot drop was more common. Grade 2 disabilities were present in majority of cases.

Conclusion:

As pure neuritic leprosy demands early diagnosis to prevent progression of nerve damage and multiple nerve involvement, all patients having the above clinical presentations should be suspected of pure neuritic hansen in leprosy endemic areas.

Erysipelas of the face: A 24-year Retrospective Study

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Introduction & Objectives:

An acute facial erythema is typically caused by infectious or allergic factors. Other potential causes include congenital or acquired vascular lesions, which may present as transient or permanent flare-ups. The face is the second most common site for erysipelas, a condition that is rarely detailed in medical literature. This study aims to delineate the epidemiological characteristics of a hospital series of facial erysipelas (FE).

Materials & Methods:

This single-center retrospective study included 17 patients with FE managed at the Department of Dermatology and Venerology of La Rabta University Hospital in Tunis over 24 years and 4 months, between January 1999 and April 2024. Clinical and paraclinical data were retrieved from patient medical records.

Results:

The study enrolled 17 patients, 11 women and 6 men, with a sex ratio of 0.54. The mean age at diagnosis was 55.5 years (range: 37-78). The median age at diagnosis was 55.5 years (range: 37-78). Comorbidities were present in 12 cases, including hypertension (41.2%), diabetes (47.1%), dyslipidemia (5.9%), coronary artery disease (11.8%), tuberculosis (5.9%), and hyperuricemia (5.9%). The median time to diagnosis was 6.5 days (range: 1-30). The identified portals of entry included traumatic ulceration (1 case), manipulated furuncle (3 cases), retro-auricular intertrigo (3 cases), herpes simplex virus (1 case), impetigo (1 case), and auricular eczema (1 case). No entry point was identified in 7 cases (41.2%). Physical examination revealed fever in 8 cases (47.1%) with a mean temperature of 37.7°C ± 0.7°C (range: 36.7°C-39°C). Clinical features included an erythematous, warm, edematous, and painful plaque (88.2%), papules (11.8%), pustules (23.5%), and crusts (17.6%). FE was localized to the left hemiface in 3 cases, the right hemiface in 7 cases, and was bilateral in 7 cases. Lab results revealed hyperleukocytosis in 3 cases and neutrophilia in 11 cases. The mean CRP level was 50.6 mg/L ± 39.9 mg/L (range: 6 mg/L-141 mg/L). The initial antibiotic therapy included amoxicillin-clavulanic acid (ACA) (41.2%), pristinamycin (17.6%), cefazolin (5.9%), penicillin (23.5%), ACA and gentamicin (5.9%), and pristinamycin and gentamicin (5.9%). The mean duration of antibiotic therapy was 8.9 days (range: 2-15 days), resulting in clinical improvement in 70.6% of patients. Antibiotic switch was required in 9 cases for a mean duration of 8.1 days (range: 5-10 days). Bacteriological testing performed in one case identified methicillin-resistant Staphylococcus aureus. Notably, four patients with recurrent FE had underlying, untreated retro-auricular intertrigo.

Conclusion:

Our findings suggest that FE is more prevalent in women and frequently associated with diabetes. Identifying predisposing factors, particularly intertrigo, is crucial for preventing recurrences. Amoxicillin-clavulanic acid appears to be the most effective initial therapy. However, the limitations of a retrospective design warrant further prospective studies to optimize the management of FE.

Pseudomonas aeruginosa in Dermatology: A Four-Year Retrospective Study

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Introduction & Objectives:

Pseudomonas aeruginosa is a common bacterium involved in nosocomial infections. It is frequently encountered in dermatological practice where distinguishing between simple colonization and true infection can be challenging. Understanding the peculiarities of this organism in dermatological pathology is fundamental for prescribing appropriate therapeutic or prophylactic measures.

Materials & Methods:

This is a retrospective study spanning four years (2020 – 2023), investigating the epidemiological, clinical, and bacteriological characteristics of all patients with a positive bacteriological sample for P. aeruginosa from our dermatology department.

Results:

A total of 77 positive samples for P. aeruginosa were included from 61 patients. Clinical data were available for 33 cases, while others were not exploitable. The patients (17 males, 16 females) had a median age of 59 years (4 – 92 years). The positive samples originated from a cutaneous lesion in 91% of cases. Among the underlying skin pathologies, leg ulcers were the most common (33%), followed by squamous cell carcinomas (18%), erysipelas (12%), post-operative wounds (9%), and superficial pemphigus (6%). Other conditions such as a breast ulcer, kerion, hereditary epidermolysis bullosa, plantar perforating ulcer, acute generalized exanthematous pustulosis (AGEP), bullous stasis dermatitis, and Hidradenitis Suppurativa were each implicated in 3% of cases. No cases of ecthyma gangrenosum or acantholytic dermatosis were recorded. Among the cutaneous positive samples, the mean duration of underlying skin pathology was 3.1 years (4 days – 25 years). Fourteen cases exhibited colonization of their underlying skin pathology without clinical or biological signs of superinfection, including 7 leg ulcers, while 19 cases had authentic infections. Six patients had multiple positive P. aeruginosa samples at least 2 months apart. Four patients had positive samples at multiple sites in addition to a cutaneous location (2 urinary sites, one bloodstream infection, one corneal abscess, and one otitis).

Conclusion:

Our series underscores the prevalence of P. aeruginosa in dermatology, frequently colonizing chronic ulcers, traumatic wounds, pressure sores, and exuding dermatoses. A notable frequency of colonization, especially in leg ulcers, results from delayed consultation, prolonged evolution, non-adherence to local protocols, and inappropriate antibiotic prescriptions. Positive samples also stemmed relatively from squamous cell carcinomas, explained by delayed consultation. Cases of early post-operative positive samples are attributed to dressing occlusion and infections associated with care. In dermatology, distinguishing between colonization and infection, particularly in chronic leg ulcers, often remains challenging.

Herpetic Folliculitis in an Immunocompetent Patient

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Introduction: Herpetic folliculitis is a rare manifestation of herpes virus infection, reported most commonly in immunocompromised patients. It usually represents a diagnostic challenge, due to the absence of characteristic skin manifestations. In immunocompetent patients the diagnosis is even more challenging.

Case report: Female, 30 years old, nurse, with a history of the appearance of follicular pustules, which evolved into blisters with exudative content and, later, painful ulcers, in the inguinal region bilaterally, glutes, abdomen and right lower limb, for three months, with episodes of fever measured during the period. She developed cold sores, which began three days after the lesions appeared on his body. During this period, she underwent several medical consultations, and was prescribed empirical treatment with amoxicillin for ten days, Sulfamethoxazole and Trimethoprim for seven days, Clindamycin for seven days, Cephalexin for ten days, in addition to Cefuroxime for one month, without improvement. She had a history of cold sores since childhood, with an average of fifteen episodes in six months. Patient without comorbidities. She denies using continuous medication, smoking, alcoholism and drug addiction. On physical examination, she presented an erythematous plaque overlaid with a hematic crust on the left lower lip, pustules in the inguinal region, as well as blisters with exudative content and ulcers on the buttocks, left leg and abdomen. Herpetic folliculitis was listed as a diagnostic hypothesis and a skin biopsy was performed on the right leg, whose anatomopathological examination confirmed dermatovirus due to follicular herpesvirus. Furthermore, general laboratory tests and serology were requested, with negative results. Therefore, Valacyclovir one gram three times daily for seven days was prescribed. The patient evolved with complete remission of the lesions.

Discussion: Although herpetic skin infection is very common, herpetic folliculitis is infrequently reported in the literature, especially in immunocompetent patients. It has varied presentations, some of which are clinically atypical requiring histopathological confirmation of follicular involvement. The most frequent clinical findings are first erythematous papules and plaques, followed by vesicles or pustules and finally ulcers. A skin biopsy may be necessary, due to the range of differential diagnosesal, to detect findings consistent with herpetic folliculitis, such as intranuclear viral inclusions with multinucleated giant cells in and around the follicular epithelium. The treatment of choice is Acyclovir or Valacyclovir in shorter courses.

Conclusion: Even though the diagnosis of herpetic folliculitis in immunocompetent patients is infrequent, it should be listed as a diagnostic hypothesis when there are follicular lesions in patients who have a history of herpes simplex. This allows for early diagnosis and treatment, reducing disease-related morbidity.

Secondary cutaneous cryptococcosis, the importance of the skin biopsy and mycological study.

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Introduction:

Cutaneous cryptococcosis is a fungal infection secondary to *Cryptococcus spp.* It has been classified as primary, when there is a history of skin trauma that causes the fungus inoculation, or secondary, when the fungus spreads from another site like lung or meninges.

Case:

We present a 22-year-old male with previous history of recently diagnosis of human immunodeficiency virus (HIV) infection. He presented with numerous whitish, umbilicated papular-like lesions distributed in the forehead and periocular region 2 months previous to consultation. A skin biopsy showed hyperkeratosis with parakeratosis, moderate acanthosis and in dermis, an area with edema and degeneration of collagen fibers, with a "gelatinous" appearance, accompanied with an intense inflammatory infiltrate composed of lymphocytes, histiocytes, plasmatic cells, where some clear, round with doble membrane structures positive for PAS and Gomori Grocott stains, compatible with *Cryptococcus spp.* encapsulated yeast were seen. Due headache and vomit, a lumbar punction with CSF study was performed, direct microscopic exam and mycological culture were also positive* for *Cryptococcus sp,* and identified by proteomics using MALDI-TOF as Cryptococcus neoformans, starting treatment with liposomal amphotericin B plus 5-fluorocytosine for meningeal cryptococcosis diagnosis.

Discussion:

Cutaneous cryptococcosis is a worldwide mycosis that usually affects immunocompromised patients as an opportunist infection, nowadays, common in HIV patients, being the third most common invasive fungal infection.

The skin and soft tissue involvement is relatively rare but must be considered as a sign of disseminated disease, that obligates the search for another infection sites. The morphology of the skin lesions is polymorphic, including papules, pustules, nodules, abscesses, edema, panniculitis.

The skin biopsy must show encapsulated ovoid-spheric yeasts of 5-10 mm with suppurative granulomatous reaction, necrosis and fibrosis in immunocompetent patients, and in immunosuppressed patients the presence of gelatinous cystic structures filled with encapsulated yeasts is the most common finding. It has been reported in immunocompromised patients the most common agent is *Cryptococcuus neoformans*.

Conclusion:

The cutaneous cryptococcosis has been augmented in diagnosis due to the increasing cases of immunocompromised patients, like the HIV infection. The variety of skin manifestations are the reason to emphasize the need of skin biopsy and mycological studies to achieve the diagnosis.

Cytomegalovirus causes extensive ulceration of lower extremities

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Title:

Cytomegalovirus causes extensive ulceration of lower extremities

Introduction & Objectives:

Skin cytomegalovirus infection is not common skin infection. The ulcer of skin cytomegalovirus /CMV progresses very rapidly, but often been misdiagnosed or delayed diagnosed. An 85-year-old female patient presented with erosive erythema persisting on the lower limbs for over 2 months. Two months ago, she had blistering erythema on the left lower limb that progressed to erosion and exudation accompanied by pain. At home, she self-administered topical treatments using vinegar and hydrogen peroxide without seeking medical attention. Approximately one month later, the area of blistering erythema on the left lower limb gradually expanded while experiencing increasing pain. Additionally, scattered blisters appeared on the right lower limb. The patient received symptomatic treatment such as hydropathic compress at a local clinic, but showed no improvement. Upon admission to our department, she reported a one-day episode of fever without cough or expectoration. The patient has a medical history of lower extremity varicose veins, with no significant comorbidities.

Materials & Methods:

Laboratory tests were completed as followed, serum laboratory analysis: Leukocyte count 9.0×10^9/L, hemoglobin 107g/L↓, albumin 26.5g/L↓, whole blood CRP 92.5mg/L↑; interleukin-6 (IL-6) 14.50pg/mL↑; cytomegalovirus IgM+ and IgG+□Next generation sequence (NGS) of patient's skin lesion biopsy: 362 human cytomegalovirus CMV sequences were detected; Skin biopsy pathology: no epidermis, dermal collagen fibrous tissue hyperplasia, a small number of lymphocytes and neutrophils infiltrated around skin appendages; HRCT: subpleural inflammatory lesions in both lung apex and dorsal segment of the right lower lobe.

Results:

Our diagnosis: ulcer of lower limbs, skin cytomegalovirus infection;

Conclusion:

Unfortunately, this old lady complicated with severe pneumonia and transfer to intensive care unit ICU after one week, although who was diagnosed as soon as possible in our department and received active anti-infective and antiviral therapy at the same time.

Persistent and multifocal facial ulcerative herpes simplex infection secondary to radiotherapy

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Introduction & Objectives:

Radiotherapy (RT) induces sustained reactivation of human herpes simplex virus types I (HSV-1) and II infection, due to regional impairment of cutaneous cellular immunity. Symptoms may be severe, with an increased risk of superinfection and disseminated disease.

The clinical picture and relative incidences vary according to the anatomical site. For instance, the reactivation rate of oral HSV infection in patients with squamous cell carcinoma (SCC) in the head and neck undergoing RT has been estimated at 18.7%. Notwithstanding these data, perioral or multifocal persistent ulcers have not been previously described in this setting. For this reason, the aim of this work is to report the first case of a multifocal facial HSV-1 infection in a patient undergoing RT.

Materials & Methods:

Our patient was an 80-year-old man with a history of a left preauricular SCC (AJCC-8 staging: pT3N2bM0) with ipsilateral parotid and cervical metastatic lymph nodes. He had been previously treated with radical surgery, parotidectomy and cervical lymph node dissection. Adjuvant radiotherapy was started two months prior to our evaluation.

He was referred to our emergency unit for 6 week-long superficial ulcers on his chin, left nasolabial fold and right lower eyelid. His performance status was excellent (ECOG 0) and denied any further symptoms. Close-up examination revealed rounded ulcers with various sizes (up to 2x2 cm), with erythematous, raised, and polycyclic borders. Those located on the chin and nasolabial fold were surrounded by a large and pale erythematous patch (radiodermatitis grade 1).

Results:

A RT-induced persistent multifocal HSV infection was suspected. Two punch-biopsies were obtained from each ulcer for histological analysis, culture, and PCR. Microscopic examination revealed multinucleated and giant keratinocytes, with abundant intranuclear Cowdry type A inclusions. Immunohistochemistry and PCR confirmed active replication of HSV-1. *Staphylococcus epidermidis* and *Cutibacterium acnes* were isolated and deemed as skin contaminants. Ulcers spontaneously healed 6 weeks after RT completion.

Conclusion:

Antiviral therapy with systemic nucleoside analogues are recommended in RT-induced reactivated HSV infection since the first clinical symptoms are identified. Some authors even suggest prescribing suppressive therapy until the RT course is completed.

In this case, no empirical treatment was started, as the diagnosis was unclear and the infection was limited. When the results were available 3 weeks after, an expectant management was followed since the RT course had been recently finished and the ulcers already showed signs of re-epithelization.

Our work highlights the association between RT and HSV infection and reports a multifocal reactivation which had not been previously described in the literature. Dermatologists and oncologists should raise their awareness on this entity for achieving a prompt diagnosis and expedite management.

Case of eczema herpeticum in a breast cancer patient

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Introduction & Objectives:

Eczema herpeticum (EH) is a disseminated cutaneous infection caused by the herpes simplex virus, typically occurring in patients with atopic dermatitis. However, it can also manifest in individuals with other preexisting skin conditions characterized by impaired skin barrier function (allergic contact dermatitis, Darier's disease, ichthyosis), as well as in those with immunodeficiency disorders (HIV/AIDS, cutaneous T-cell lymphoma, Hodgkin's disease, Sézary disease, and immune-compromised patients). Despite its distinctive clinical features, this uncommon condition is often misdiagnosed as other skin disorders, leading to delays in administering systemic antiviral medications and potential life-threatening complications (meningitis, encephalitis, multiple organ failure).

Materials & Methods:

We report a clinical presentation of eczema herpeticum that occurred following a radiation therapy procedure in a breast cancer patient.

Results:

A 47-year-old Caucasian female presented to our clinic with eczema on her chest that developed on the fifth day after radiation therapy procedure. She had been receiving treatment for eczema with Betamethasone + Clotrimazole + Gentamicin cream without improvement. The patient had a medical history of mastectomy due to breast cancer and had been receiving tamoxifen 20 mg daily and radiation therapy procedures.

Physical examination revealed disseminated, pruritic blisters with central depression and erosions on her breast and chest. PCR samples were collected from an unroofed vesicle, confirming the presence of HSV type 1. Consequently, the patient was diagnosed with eczema herpeticum. Following 7 days of treatment with oral Valacyclovir (1000 mg thrice daily), the lesions completely resolved.

Conclusion:

Eczema herpeticum is a rare but serious infection that may develop in immunocompromised patients. In cancer patients, herpes infections can present as atypical skin lesions, which may mimic non-infectious conditions, potentially leading to misdiagnosis. Prompt antiviral treatment can prevent viral dissemination and possible lifethreatening complications.

Intravenous liposomal amphotericin B efficacy and safety for localized cutaneous leishmaniasis: case series

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Introduction & Objectives: Cutaneous leishmaniasis (CL) is a skin infection caused by several Leishmania parasites transmitted through sandfly bites, characterized mostly by skin nodules and ulcers in affected individuals. Leishmaniasis is present in the tropical and subtropical temperate areas of the world and throughout the Mediterranean region, particularly in the southern Italian regions such as Calabria and Sicily.** Intravenous liposomal amphotericin B (IV L-AmB) is the most effective therapeutic agent for the visceral form of leishmaniasis, but its utilization is growing also for CL.

Materials & Methods: here we report the clinical features and images of four patients affected by localized CL due to Leishmania major, successfully treated with IV L-AmB.

Results: we observed four patients (3M, 1F, average age: 69 years) with localized CL initially presenting with different skin lesions (e.g. erythematous plaques, papules, or ulcerated lesions). treated, after obtaining informed consent, with IV L-Amb 3 mg/kg/day infusion from day 1 to day 5 followed by one infusion on day 10 after the failure of local or systemic treatments. An excellent clinical improvement was recorded in all patients, with only a singular infusion reaction and transitory gastrointestinal side effects. No relapses were found in all patients, during the follow-up period (maximum of 5 years).

Conclusion: our case series confirms that CL can present with various and challenging clinical manifestations. Our results suggest that IV L-AmB could be a promising and safe systemic therapy in CL caused by L. major.

When a Maculopapular Rash Reveals Acute Cholecystitis

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Introduction & Objectives:

An exanthem is a sudden onset rash, spreading within hours and resolving within days, consisting of erythematous macules that may be associated with other elementary lesions. Its etiologies are numerous, mainly viral in children and drug-related in adults. However, in rare situations, it can be a manifestation of a life-threatening condition or a public health emergency.

Materials & Methods:

Here, we report a case of a maculopapular rash revealing acute cholecystitis. A 39-year-old patient, with no notable medical history, was hospitalized for the management of a febrile maculopapular rash evolving for 10 days, accompanied by skin and mucosal pallor, preceded by 2 days of fever at 41°C and headaches complicated by confusion

Results:

Biological examinations revealed a major inflammatory syndrome. Liver function tests were disturbed: aspartate aminotransferase (ASAT) levels were 9 times the normal value, alanine aminotransferase (ALAT) levels were 4 times the normal value, with elevated direct and indirect bilirubin and gamma-glutamyl transferase (GammaGT). Abdominal ultrasound revealed acute cholecystitis. The patient showed clinical and biological improvement after intravenous antibiotic therapy, application of dermocorticoids on body lesions, followed by cholecystectomy after stabilization.

Conclusion:

Although febrile exanthems are often benign, they can reveal underlying life-threatening conditions, posing a real challenge for the practitioner who should identify among patients presenting with such a picture those who require urgent hospitalization and specialized care. Drug eruptions are by far the most frequent causes in adults, followed by viral infections and toxin-mediated eruptions. Hence the importance of a thorough history-taking and clinical examination to guide and target a specific etiology, avoid delaying patient management, and especially to avoid the high costs of unnecessary and unhelpful complementary examinations in this type of symptomatology, as was the case with our patient. We discovered, through the observation of slight cutaneous-mucosal jaundice during the clinical examination, which prompted us to perform biological and radiological examinations, thereby identifying the septic origin of the eruption secondary to acute cholecystitis. In fact, systemic effects of microorganisms on the skin most commonly manifest as an exanthem, through direct or indirect action via toxins. In our patient, E. coli was the responsible organism for toxin secretion, given the presence of acute cholecystitis, which also highlights the uniqueness of our case.

The febrile exanthem in adults can be a manifestation of a benign viral infection, but it should first raise suspicion for severe etiologies such as drug-induced eruptions and bacterial infections requiring urgent management. This observation underscores the pivotal role of the skin as a warning signal for septic conditions, prompting the

practitioner to uncover underlying pathologies that may endanger life even in the absence of obvious associated signs. Hence, the importance of thorough history-taking and meticulous clinical examination to guide diagnosis.

Cutaneous erysipeloid leishmaniasis: a case report

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Introduction & Objectives:

Cutaneous erysipeloid leishmaniasis is a rare clinical form that can be deceptive, leading to diagnostic delays and therapeutic wandering. It is a diagnosis to consider in the presence of any clinical presentation resembling erysipelas that does not respond to appropriate antibiotic therapy.

Materials & Methods:

A 54-year-old female patient from southern Morocco, with no particular medical history, menopausal for one year, was admitted to the dermatology department with a painless erythematous swelling of the right hand and forearm evolving over 3 months, for which the patient received several courses of antibiotics without improvement.

Clinical examination revealed an erythematous, edematous, infiltrated, and scaly plaque with a verrucous center topped with an adherent crust, extending over the the right hand, wrist and forearm with major limitation of wrist joint mobility.

Considering the patient's region of origin, the clinical appearance, the prolonged course, and the lack of response to antibiotics, several diagnoses were considered, including cutaneous leishmaniasis, which was confirmed by skin smear revealing intracellular Leishmania amastigotes. In our context, PCR and histological examination could not be performed due to lack of resources.

The patient initially received 15 days of clarithromycin and metronidazole with slight improvement, followed by systemic treatment with intramuscular injections of meglumine antimoniate at a dose of 20 mg/kg/day of antimony for 20 days. The only adverse event observed was a threefold elevation of lipase, which normalized after a treatment adjustment, with no other notable incidents. Clinical improvement was marked by significant deswelling of the lesion and restoration of normal wrist function.

Results:

Cutaneous erysipeloid leishmaniasis is a rare, atypical form, probably underdiagnosed due to lack of awareness among clinicians. It typically presents as an infiltrated erythematous plaque with a prolonged course. Although its etiopathogenesis is still unclear, several hypotheses have been proposed in the literature, including age-related immune alterations, hormonal changes of menopause, specific parasite subtype, trauma as a triggering factor, and nonsteroidal anti-inflammatory drugs use as an aggravating factor. In our patient, advanced age and menopause were present, but there was no history of trauma or nonsteroidal anti-inflammatory drugs use.

Conclusion:

Cutaneous leishmaniasis remains a major public health issue in Morocco, with its erysipeloid form likely being underdiagnosed due to lack of clinician awareness, leading to considerable diagnostic delays. It is important to consider this diagnosis in the presence of any erysipelas-like lesion with a prolonged course that does not respond to antibiotics, especially in patients from endemic regions.

Rare locations of shingles - case series with literature review and treatment evidence analysis

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Introduction & Objectives:

Herpes zoster (HZ) is a common dermatological condition which affects up to 20% of the population. HZ is an infectious vesicular skin rash in a dermatomal distribution caused by *varicella zoster* virus. It is a major health burden that can affect individuals of any age. It is seen more commonly among individuals over 50 years of age, those with immunocompromised status or receiving immunosuppressant drugs. Cell-mediated immunity plays a key role in the viral reactivation. Fever, pain, and itch are common symptoms before the onset of rash. HZ most frequently involves the thoracic and facial dermatomes with sacral lesions occurring rarely. The aim of the authors was to present a case series of rare shingles location with treatment effects, literature review and evidence analysis.**

Materials & Methods:

The authors present four case reports of rare locations of shingles and the treatment methods: a 74-year-old female patient who was diagnosed with shingles localized on the vulva and treated with acyclovir; 8-year-old immunocompetent boy with a painful lumbosacral HZ that was treated with brivudin; penile clinical presentations of varicella zoster virus infection in immunocompetent men treated with acyclovir; 70-year-old man with oral shingles treated with acyclovir.

Results:

All of the lesions resolved quickly upon administration of oral antiviral therapy. The remaining lesions were treated in order to minimize the aesthetic effect, as well as the risk of developing postherpetic neuralgia.

Conclusion:

Herpes zoster should not be overlooked in patients with vesicular rash. It may appear in unusual locations. The most commonly used antiviral drugs in shingles are acyclovir, valaciclovir, famciclovir and brivudine.

Temporal pattern of Scabies: A retrospective study from 2010 to 2023

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Introduction & Objectives:

Sarcoptes scabiei var. hominis is one of 50.000 known species of mites and an obligate parasite leading to scabies. It is caused by the female mite digging into the upper skin layer after fertilization on the skin surface. 2-5 weeks later, a physical response by the human body can be observed in the form of a late-type immune reaction. Around 300 billion people worldwide are affected by this ectoparasitosis. There is a high risk for vulnerable groups like children or immunosuppressed patients. In southern countries, a high prevalence of >15% is reported. In Europe, a high number of cases is reported as well. In Germany, around 380,000 people were diagnosed with scabies in 2018. The Robert-Koch Institute states an increase in documented cases since 2018 by a factor of nine compared to 2009. This study aims to analyze disease- and patient-related factors of the increasing numbers over a set period of time.

Materials & Methods:

This retrospective study includes scabies patients diagnosed with scabies at a dermatological clinic between January 2010 and July 2023. Included were all documented cases, regardless of age. The clinic's medical controlling department assessed all documented cases with the ICD10 diagnosis B86 (scabies). Date of birth, gender, place of residence, date of admission and discharge, and in- and outpatient setting were extracted. Microsoft Excel was used to evaluate the data.

Results:

In total, 3,136 cases of scabies were documented, comprising 2,149 outpatient and 987 inpatient cases. Overall, 1,758 male and 1,378 female cases were documented, with 1,238 male and 911 female cases in the outpatient setting. Patients in the outpatient setting tend to be mostly newborns, teenagers, or young adults, while elderly patients receive treatment on an inpatient basis. Female outpatients averaged 24.9 years and inpatients 29.8 years, while male outpatients averaged 23.8 years and inpatients 25.7 years. Over the years, there has been a decreasing trend in age distribution among outpatient cases, while an increasing trend is observed among inpatient cases. The lowest number of cases was reported in August (189) and July (193). Most cases were reported in January (357) and February (300). Most outpatient cases were documented in January (264), whereas most inpatient cases were found in March (107, Table 1).

Month	Jan	Feb	Mar	Ар	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
outpatient	264	234	178	184	198	138	114	130	114	191	179	225
inpatient	93	66	107	102	80	64	79	59	76	95	102	64
overall	357	300	285	286	278	202	193	189	190	286	281	289

Table 1: Cases of scabies from 2010 to 2023

Conclusion:

The study indicates that most of the cases were reported in colder months, and women tend to be slightly older than men. There has been an increasing trend of scabies infections, especially since 2018. Potential reasons for that could be the rise of COVID-19 infections, lockdowns, and social gatherings. Due to the small size of the parasite, the diagnosis often is difficult. In many cases, it only consists of clinical symptoms and anamnesis. Nocturnal itching on predilection sites, such as wrists or genital areas, and itching of contact persons are indicators. With experience, it is possible to see triangular structures (kite signs) and detect mites using a dermatoscope. We are currently working on developing a rapid antigen test to detect the disease more quickly, prevent the infection of contact persons, and start the treatment earlier.

Squamous cell carcinoma complicating lupus vulgaris

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Introduction & Objectives:

Lupus vulgaris (LV) is a type of cutaneous tuberculosis that, if not properly treated, presents a progressive chronic development whose long-term complications include cutaneous neoplasms.

Materials & Methods:

Here, we report a case of squamous cell carcinoma (SCC) arising from LV almost a decade after it was properly treated.

Results:

A 71-year-old woman presented 8 years ago with erythematous ulcerated plaques on her face and limbs. The condition progressed with the plaque extending to encompass the entire mid-facial region, resembling butterfly wings, with areas of atrophy. Multiple painless cervical lymphadenopathies were associated.

Biopsy revealed granuloma with caseous necrosis. A diagnosis of LV with lymph node involvement was established, and the patient received 12 months of anti-tuberculous treatment.

In 2023, the patient consulted again for an ulcerated and vegetative plaque on the entire lower part of her face, evolving for over a year. Biopsy showed well differentiated SCC with lesions of chronic granulomatous dermatitis indicative of LV, and staging revealed lymph node involvement and pulmonary metastases. The choice was made to opt for palliative treatment.

Conclusion:

Malignant tumors are known to occur in individuals with LV, with a reported rate of 0.5–10.5%. Although SCC is the most common form, only a few cases of SCC arising from LV have been reported since 2000.

The interval from the onset of LV to the occurrence of carcinoma ranges from 2 to 79 years. The SCC on LV can either begin on the tuberculous tissue or on a scar, as in our case.

The etiology of lupus carcinoma remains unknown. X-ray therapy is an important factor in carcinogenesis. Chronic inflammation, cicatricial changes, physical and chemical trauma and sunlight are other factors giving rise to carcinoma. Chronic inflammation is the most plausible cause of carcinogenesis in our patient.

Our case underscores the importance of vigilance for long-term neoplastic complications of cutaneous tuberculosis, even after successful treatment.

Beta-HUMAN PAPILLOMAVIRUS-RELATED VERRUCOSIS COMPLICATING IMMUNOCOMPROMISED CUTANEOUS DISTRICTS. A CASE SERIES.

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Introduction & Objectives: b-Human Papillomaviruses (b-HPV) are normal constituents of the epidermal microbiome. Exceptionally they may lead extensive verrucosis on the skin of severely immunodeficient patients, as in epidermodysplasia verruciformis with EVER mutations.

Materials & Methods: To report the clinical, histological and virologic features of a series of 11 patients with localized verrucosis restricted to the site of a pre-existent dermatosis.

Results: All the cases of verrucosis were restricted to cutaneous areas that were recently involved by inflammatory dermatoses, cutaneous cancer or recent scar tissue. Histology revealed verruciform epidermal hyperplasia without koilocytes in all the cases. b1-HPV5, 8, 14, 20, 38 and 49 were retrieved by semi-quantitative PCR in all the lesions whereas the a-HPVs, HSV1, HSV2, VZV, EBV, Polyomavirus and CMV were negative. Nearly all b1-HPVs were identified but the HPV20 viral load was often the most abundant. RNAscope evidenced active b1-HPV8 viral transcription in the verrucosis lesions. Viral expression returned to control levels after the healing of the preexisting dermatosis. Oral acitretin resulted in partial (3/6) and complete (3/6) responses (Fig 1-3). In two patients, verrucosis was linked to a high load of b1-HPV and a diminished number of Langerhans cell. Inversely, after oral acitretin treatment, Langerhans cell number re-increased whereas the b1-HPV viral load decreased.

Conclusion: The inflammatory/immunitary alterations of the skin underlying the verrucosis represent probably immunocompromised cutaneous districts permitting an active replication of resident b1-HPVs in infected keratinocytes, as assessed by RNAscope, with subsequent localized verrucosis. Some patients respond favorably to acitretin. More studies should be performed to verify these pilot results.

Atypical Cutaneous Mycobacteria- A retrospective study of five-year experience in three major reference hospitals in Costa Rica.

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Introduction & Objectives:

Atypical cutaneous mycobacteria are a group of diseases caused by organisms other than the *Mycobacterium tuberculosis* complex. The objectives of the study were to describe the epidemiological, clinical, diagnostic methods, and therapeutic profile and determine the risk factors in patients diagnosed with atypical cutaneous mycobacteria at Hospital México, Hospital Rafael Ángel Calderón Guardia, and Hospital San Juan de Dios, during the period 2019-2023.

Materials & Methods:

We analyzed the cases that met the inclusion criteria by estimating frequencies and percentages and determining the 95% confidence interval (95%CI). All analyses were done using R 4.2.2 (R Foundation, Vienna, Austria, 2022) through R Studio 2023.12.1. This study has been approved by the CCSS Central Scientific Ethics Committee under protocol number R023-SABI-00344.

Results:

The number of patients included was 20 participants. The median age of patients was 40 years with a range of 21 to 72 years at the time of diagnosis, with 25% male and 75% female representation. For the risk factors found in these twenty participants, the presence of diabetes was determined in four of them, one of them with the presence of pharmacological immunosuppression with azathioprine and prednisolone due to underlying lupus erythematosus, the presence of IgG subclass 3 deficiency and human immunodeficiency virus infection in two patients respectively. In none of the cases was the presence of active neoplasia documented at the file level during collection. A history of trauma was identified in sixteen patients with different trauma mechanisms including tattoos, lipotransfer, abdominoplasty, prophylactic mastectomy, injection of plasma, insulin, and foreign body material. Among the affected sites, 45% had gluteal involvement, 10% abdominal wall, 10% the left upper limb, 5% both lower limbs, 5% combined involvement of the trunk and lower limbs, 5% simultaneous involvement of the abdomen and upper limbs and 5% for each of the following sites: breast, cervical, right upper limb and right lower limb. Of the isolated species, the isolation of one M. fortuitum, one M. avium, one M. marinum, three M. chelonae, thirteen M. absessus and a culture where the joint isolation of M. abscessus and Nocardia farcinica was found. Half of the cases had histological studies. The registered drugs received by the participants included ciprofloxacin, clarithromycin, azithromycin, trimetoprim-sulfamethoxazole, clindamycin, doxycycline, ethambutol, imipenem, isoniazid, vancomycin, cefotaxime, ceftazidime, anfotericine B, caspofungin, and fluconazole; this finding in relation to empirical coverage prior to definitive bacterial isolation. Regarding the duration of treatment by analysis, they were 9-12 months in 25%, 6-9 months in 20%, 1-2 years in 20%, 10% of unknown duration and 5% without treatment.

Conclusion:

It is essential to take into consideration a history of trauma as a significant risk factor. The subgroup of atypical

mycobacteria showed a predominance of infection at the buttocks level, with the species *M. abscessus* being the most commonly isolated. The mycobacteria group received multiple drug regimens, among the most commonly used drugs were clarithromycin, doxycycline, and azithromycin. These patients had exposure to combination regimens, and some required up to eight antibiotic treatments. Some of them also needed prolonged treatments and additional surgical management.

A rare view mirror image of Cutaneous tuberculosis: A case series

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Introduction & Objectives: The incidence of cutaneous tuberculosis (TB) in India is 0.1 to 2%. types of cutaneous tuberculosis includes inoculation cutaneous tuberculosis (tuberculous chancre), lupus vulgaris (LV), scrofuloderma, tuberculosis verrucosa cutis , tuberculosis cutis orificialis , tuberculosis gumma , miliary tuberculosis and tuberculids which includes papulonecrotic tuberculid, lichen scrofulosorum, erythema induratum. scrofuloderma and lupus vulgaris are commonest type seen in Indian patients

Materials & Methods:

Medical records of diagnosed cases of cutaneous TB from August 2021 to February 2024 were analysed retrospectively considering epidemiology, clinical features, histopathology and other investigations

Results:

A total of 32 patients of cutaneous TB were enrolled. Male to female ratio was 1:2. The most common age group affected was of 10-20 years (44%). The primary morphology encountered were plaque (40%), papules (26.2%), ulcers (21.7%) and nodules (13%). Extremities (69.5%) were most commonly involved followed by trunk (17.3%), both trunk and extremity were involved in 13.2%. Mantoux test (MT) positivity was seen in 30.4 %. Erythrocyte sedimentation rate (ESR) was elevated in 30.4 %. Due to cost constraints Interferon gamma release assay (IGRA) was performed in 6 patients who showed positive response. There was 100% correlation of histopathological features of all the patients. The types of cutaneous TB were lupus vulgaris (31%), erythema induratum (21.7%), lichen scrofulosorum (17.5%), erythema nodosum (13%), papulonectrotic tuberculid (8.6%) and tuberculosis verruca cutis (8.6%). All patients were started on Anti tubercular therapy, 50 % showed resolution while others are still on treatment.

Table showing comparison of current study with other available studies

Parameters	Aruna C et al	Acharya KM et al	Thakur BK et al	Punia RS et al	Singh EN et al	Ranawaka RR et al	Supekar BB et al	Curre stud
Patients	25	50	42	50	45	20	52	32
Study duration	3.5 year	44 months	1 year	7 year	18 months	26 yr	3 months	3 years
M:F ratio	1.5:1	3:2	1.21:1	1.08	1.6:1	3:2	1.6:1	1:2
Age	25 yr	11-20	20-30	20-29	11-30	40-50	21-30	10-20
Clinical type	LV	LV	Scrofulo- derma	LV	LV	LV	LV	LV
Site of involvement	Lower	Face and neck	Head and neck	Neck	Lower limb And neck	Face	Head and neck	Extrem
MT positivity	84.2%	68%	83.33%	-	66.7%	15%	67.30%	30.4%
ESR positivity						15%	71.15%	30.4%
Histopathological correlation	90%	96%		92%	91.1%	10%	86.53%	100%

Conclusion: The diagnosis of cutaneous TB requires a high level of clinical suspicion as it has varied presentations, the test like MT and ESR have high sensitivity however histopathology is still the gold standard for diagnosis the disease.

three cases of Kaposi-Juliusberg syndrome

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Introduction & Objectives: Kaposi-Juliusberg syndrome is the herpetic superinfection of an extensive erythematous dermatosis. It constitutes a diagnostic and therapeutic emergency, especially in atopic patients and those with precarious conditions.

Materials & Methods: We present Three cases illustrating this syndrome

Results: Case No. 1: 38-year-old man, followed for renal vasculitis. Was hospitalized in our department for DRESS Allopurinol syndrome, placed on systemic corticosteroid therapy, with partial initial improvement. One week later, he presented with a varioliform pustular eruption in a context of fever and deterioration in general condition. The PCR for the HSV1 virus was positive. The patient was put on Aciclovir then on corticosteroid therapy with a steady progression over 3 months.

Case No. 2: young girl aged 20, followed for pemphigus vulgaris under systemic corticotherapy and Azathioprine. Consulted for a (relapse) of his illness in a context of fever and deterioration of general condition. The clinical examination revealed a vesicular eruption of varioliform evolution. The diagnosis of a Kaposi-Juliusberg was confirmed by the PCR. The patient was started on Aciclovir parenterally with a favorable outcome.

Case No. 3: 80-year-old woman was hospitalized for treatment of paraneoplastic erythroderma. During her hospitalization, she presented with a varioliform periorificial vesicular eruption. The ophthalmological examination for a red eye revealed herpetic keratitis. Kaposi-juliusberg's diagnosis was confirmed. Paraneoplastic assessment revealed a malignant process of the stomach.

Conclusion: Kaposi-juliusberg syndrome is a serious emergency in dermatology that is often overlooked by young dermatologists. Who deserves to shine the light on him.

Mother wart between myth and reality

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Introduction & Objectives:

Warts are a benign proliferative lesions due to *human papilloma virus* (HPV). These lesions are chronic and may spontaneously disappear in more than 75% of cases after 2 years. Furthermore, they may persist or even be resistant to suggested treatments.

Currently, no treatment is proven and consistently effective.

The mother wart theory is based on a traditional myth which suggests the presence of a wart called the mother wart (the first to appear), which gives rise to all other warts called daughters and which claims that radical treatment of the mother wart alone allows the eradication of all other so-called daughter warts without any treatment for these latter ones.

We report 7 observations of patients with multiple warts in whom the mother wart was treated only by electrocoagulation with spontaneous disappearance of all the other so-called daughter warts within a period of 6 to 12 weeks

Cases report:

Case 1:

A 20-year-old man, presented with >50 palmar warts (one hand only), evolving for more than 2 years. The total disappearance of all warts was observed 3 months after the treatment of mother wart with electrocoagulation.

Case 2:

An 18-year-old man, presented with 13 warts on both feet and both hands, the mother wart was located on the left external malleolus evolving from 3 years. The total disappearance of all warts was observed 3 months after treatment of the mother wart with electrocoagulation.

Case 3:

A 60-year-old woman, presented with 4 warts on both hands evolving from 8 months. The mother wart was located on the right index finger. Partial disappearance of the warts was observed 6 weeks after the treatment of the mother wart by electrocoagulation and total disappearance was observed 3 months later.

Case 4:

A 19-year-old woman, presented with more than 13 right palmar warts evolving for more than 6 months. Partial disappearance of the warts was observed 6 weeks after the treatment of the mother wart by electrocoagulation and total disappearance was observed 3 months later.

Case 5:

A 58-year-old man, presented with 6 warts on the palms of both hands and the sole of the right foot that had

been present for 2 months. Partial disappearance of the warts was observed 6 weeks after the treatment of the mother wart by electrocoagulation and total disappearance was observed 3 months later.

Case 6:

A 38 year old woman, with a history of sarcoidosis, presented with 6 warts on both hands evolving for more than 30 years. 4 months after the treatment of mother wart with electrocoagulation we noticed the disappearance of all warts except one.

Case 7:

8-year-old child, who presented 10 warts on the palms of both hands with one on the right foot that had been present for more than 2 years. Partial disappearance of the warts was observed 6 weeks after the treatment of the mother wart by electrocoagulation and total disappearance was observed 3 months later.

Discussion:

In our 7 patients, the treatment of the initial so-called mother wart effectively led to the spontaneous disappearance without any treatment of all the other so-called daughter warts.

Our therapeutic method was based on a traditional myth known as grandmother's trick, wich has never been verified by any national or international scientific study.

The success of this therapeutic method in 7 patients is promising and encourages the carrying out of a controlled study on a larger sample.

Conclusion:

Through our observations we have verified a traditional national myth that seems promising as a new therapeutic protocol.

Utility of High-frequency ultrasonography in the diagnosis of peripheral nerve involvement in leprosy

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Introduction & Objectives:

Leprosy is a chronic granulomatous disease presenting with peripheral nerve involvement. Nerve examination in leprosy is subjective and depends upon multiple factors. Imaging modalities like Ultrasonography and MRI can also be used for the imaging of peripheral nerves. High-frequency ultrasonography(HFUS) of peripheral nerves appears to be an objective, non-invasive, and cost-effective method to assess the involvement of nerves. HFUSG also picks up the structural abnormalities in nerves like abscesses, chronic inflammation, fibrosis, and calcification.

Materials & Methods:

Here we share the experience of 15 years of doing high-frequency ultrasonography of peripheral nerves in patients with Leprosy.

Type of nerve involvement	Clinical issues	HFUS appearance	Remarks
Nerve thickening	Grades of nerve thickening are subjective and may cause false thickening of nerves	Increased cross- sectional area (CSA) of nerves that can be compared to the contralateral side and also with the age and sex-matched individuals. Also, the grading of nerves can be done on HFUS depending on the CSA and echotexture. Grade 0: Normal CSA and Echotexture Grade 1: Enlarged nerves without fascicular abnormalities Grade 2: Enlarged nerves with fascicular abnormalities Grade 3: Distorted fascicular structure	Objective assessment can be done and post-treatment improvement can be seen.

Type of nerve involvement	Clinical issues	HF USFIS Ca ysperainance se in CSA of nerves with	Remarks
Silent Neuritis	Asymptomatic neuritis cannot be detected on clinical examination as patients have very minimal or no symptoms.	hypoechoic areas with distortion of normal echotexture on HFUS. Improvement in CSA and normalization of echotextural changes can be seen with early initiation treatment	HFUS picks silent neuritis and helps in the initiation of oral corticosteroid therapy thereby preventing nerve function deficit.
Neuritis	Patients presenting with symptoms of neuritis alone or as a part of reactions may show variable degrees of neuritis on clinical examination	In already established cases of neuritis, HFUS shows an increase in CSA with hypoechoic areas and marked distortion of nerve echotexture. Sometimes small abscesses can also be seen.	HFUS can pick up the severity of inflammation and also evolving small nerve abscesses presenting as a part of the lepra reaction.
Nerve abscess	Patients with nerve abscesses usually present with sudden onset of localized pain and swelling of the nerve with difficulty in moving the affected limb. Many times, it is misdiagnosed as neuritis leading to deterioration of nerve function, severe comorbidity, and sometimes rupture of abscess. Oral corticosteroids are the drug choice.	On HFUS, nerve abscesses appear as a marked localized increase in CSA of the nerve with anechoic echotexture and the presence of hyperechoic structures at the lower end of the swelling suggestive of debris. With improvement after treatment decrease in the size of the lesion and gradual reappearance of echotexture can be seen.	Oral prednisolone is initiated at a dose of 1 mg/kg/day with anti-inflammatory agents. Patients showing an increase in CSA despite treatment can be considered for surgical drainage.

Conclusion:

Considering the slow and incomplete recovery of nerve dysfunction in leprosy, it is important to diagnose nerve pathologies early in the course of the disease to preserve nerve function. HFUS is found to be a simple, non-invasive accurate, reproducible, and objective method to diagnose nerve involvement in Leprosy.

Life cycle of Sarcoptes scabiei in vivo in a patient with crusted scabies

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Introduction & Objectives:

Scabies is a neglected tropic dermatosis. Crusted scabies is an uncommon type of scabies. To detect the life cycle of Sarcoptes scabiei in vivo in crusted scabies patient.

Materials & Methods:

Scrapings were collected in a case of crusted scabies presenting as erythroderma, which was under light microscopic, histopathologic and scanning electron microscopic study.

Results:

Abundant mites could be detected in scrapings. Light microscopy shows young female mites with eight legs, male mite, fertilized female mites with eggs, eggs with multiple scybalum, eggs with different develop levels, first nymph with six legs and second nymph with eight legs. Histopathology showed burrows with mites and eggs with different develop levels. Scanning electron microscopic study revealed burrows with mites, eggs, scybalum and secondary bacteria.

Conclusion:

Crusted scabies is a severe form of scabies, with an extremely high mite burden. Early diagnosis of crusted scabies by local physician is of great importance.

Paracoccidioidomycosis: a Rare Differential Diagnosis of Sarcoidosis

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Introduction & Objectives:

Sarcoid cutaneous lesions are typically described as red-brown or purple papules and plaques, with sarcoidosis beeing the prototypical example. Sarcoidosis is a multisystem granulomatous disease of variable severity that predominantly affects the lymph nodes, lungs, skin, and eyes. Sarcoid-like lesions can also be observed in infectious, neoplastic, and inflammatory conditions.

The aim of this report is to present a case clinically and histologically mimicking sarcoidosis, which was ultimately diagnosed as paracoccidioidomycosis (PCM).

Materials & Methods: We present a case clinically and histologically mimicking sarcoidosis, which was ultimately diagnosed as PCM.

Results:

A 51-year-old Caucasian female presented to the dermatological outpatient clinic with a four-month history of erythematous plaques that first appeared on her upper back and subsequently spread to her limbs, face, and intermammary region. She also reported an unintentional weight loss of 5 kg, episodic fevers, and night sweats. Dermatological examination revealed sarcoid-like infiltrative skin lesions on her face and torso, accompanied by cervical and axillary lymphadenopathy (Figure 1). Given the differential diagnosis of sarcoidosis, lupus vulgaris, PCM, or cutaneous lymphoma, a comprehensive diagnostic workup was initiated. Chest radiography showed bilateral perihilar infiltrates. Histological analysis revealed chronic granulomatous dermatitis with small sarcoid granulomas in the dermis and sparse spherical structures consistent with yeast within giant cells (Figure 2). Serology for PCM by counterimmunoelectrophoresis returned positive at a titer of 1:64, and cultures grew Paracoccidioides spp. Based on the clinical presentation, histopathological findings, and serological results, treatment with itraconazole 200 mg/day was initiated, leading to significant improvement in cutaneous lesions by the second month of treatment (Figure 3).

Conclusion:

PCM is a chronic granulomatous infection caused by the dimorphic fungi of the Paracoccidioides genus, prevalent in South America. Transmission primarily occurs via inhalation of mycelial fragments. The infection often presents as self-limiting, primarily affecting the lungs with frequent cutaneous manifestations due to hematogenous spread. It may also involve mucous membranes, lymph nodes and adrenal glands. Typical skin and mucosal presentations include ulcerated lesions with hemorrhagic dots, known as moriform stomatitis when occurring in the oral cavity.

The sarcoid-like presentation of PCM is a rare clinical manifestation. This form is observed in individuals with robust immunity to the fungus, characterized by a Th1 immune response leading to localized, well-formed granulomas with few or undetectable yeast structures. As the disease progresses, the host's resistance may wane,

leading to the development of additional clinical manifestations.

This case underscores the importance of considering PCM in the differential diagnosis of sarcoid-like skin lesions, particularly in regions where PCM is endemic.

Borreliosis mimicking Gilbert's Pityriasis Rosea

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Introduction: Lyme disease, also known as borreliosis, is an infectious disease caused by the bacterium*Borrelia burgdorferi*, transmitted through the bite of ticks of the genus*Ixodes*. Borreliosis mainly affects the North American region, constituting a public health problem in the United States. The main initial manifestation of Lyme disease are skin lesions called erythema migrans, which can appear anywhere on the body, predominantly on the lower and upper limbs and the face. Erythema migrans is characterized by the presence of growing erythematous macules or papules, giving rise to plaques with irregular edges with a scaly center that expand centrifugally, characterizing pityriasis rosea. Furthermore, later presentations may occur, such as articular, neurological, cardiac, ophthalmological and even rheumatological manifestations. The diagnosis of Lyme disease is mainly based on carrying out serological tests to detect specific antibodies, such as anti-*B. burgdorferi*. Borreliosis treatment is carried out according to the stages of the disease. In the case of erythema migrans, which is the most common manifestation, a broad-spectrum antibiotic, with Doxycycline being the drug of choice, at a dose of 100mg, 12/12 hours, orally, for 14 days. For more serious and advanced manifestations, the antibiotic Ceftriaxone 2g/day can be used, intravenously, for 21 to 28 days, and even Doxycycline 100mg, but with a minimum duration of 28 days.

Case Report: Patient, female, 41 years old, with main complaint of body allergy for 3 days. Complaints of red and pruritic lesions that appeared after tick bites in the abdominal region 2 weeks ago. On examination, she presented erythematous edematous papules measuring 0.5 to 1.0 cm in diameter, all over the trunk, upper limbs and lower limbs, with erythematous plaque-like lesions measuring approximately 1.5 cm in diameter, with a scaly collarette, in the abdominal region. The diagnostic hypothesis of Lyme disease was made, manifested through pityriasis rosea, confirmed by serology for *Borrelia burgdorferi*. Treatment with Doxycycline 200 mg/day, antihistamine and topical corticosteroid lotion was instituted.

Conclusion: Therefore, Lyme disease can have a good prognosis, as long as the treatment is efficient and introduced early. Investigation and diagnostic confirmation of Lyme borreliosis are essential, as erythema migrans lesions constitute the initial phase of the disease, and with effective treatment, progression to more serious and later phases can be avoided. Doxycycline is the medication of choice as it works by interfering with the metabolism of bacteria, preventing their proliferation and progression. Furthermore, for local reactions that can cause edema, itching and erythema, antihistamines and corticosteroids can be used.

Gianotti Crostti in underdiagnosing the disease and the causal agent

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Introduction: Gianotti-Crosti syndrome, also known as papular acrodermatitis, affects most frequently children (especially between 2 and 6 years of age) and the main causative agents are the hepatitis B and Epstein-Barr viruses. There may also be an association with bacterial infections and vaccination. Materials & Methods: Clinically, the disease normally manifests as a symmetrical, pruritic or asymptomatic papular eruption, classically affecting the face, buttocks and extensor surfaces of the forearms and legs and tipically resolve spontaneously within 2 months. The syndrome can usually be diagnosed based upon the anamnesis and physical examination, and the skin biopsy is only used in doubtful cases. Hypotheses to be ruled out differentially include: erythema infectiosum, erythema multiforme, scabies and hand foot and mouth disease. Most children with GCS have an excellent prognosis, although the course may be prolonged. Spontaneous remission without active intervention is the rule. During the initial two to three weeks, new papules and papulovesicles continue to occur, and the areas of involvement expand. The distribution is most classic in the middle phase of the disease. Persists for 10 days to 6 months. Most patients achieve resolution of papules and associated pruritus within two weeks to two months. Near the end of the course, slow resolution of the skin lesions occurs. Recurrences are rare. When present, lymphadenopathy and hepatomegaly (or hepatosplenomegaly) usually take longer to resolve than the cutaneous lesions. Results: A 9-years-old boy, presenting pruritic lesions on the upper and lower limbs for approximately 15 days. Past Medical History: one and a half month ago, he developed symptoms suggestive of hepatitis (choluria, fecal acholia, low-grade fever and alteration in liver enzymes), with no diagnosed cause (negative serologies for hepatitis A, B, C, toxoplasmosis, CMV, EBV). After this situation, he developed tonsillitis and underwent treatment with amoxicillin. The physical examination reveled normochromic papules, some slightly pink, ranging from 1 to 4 mm in diameter, on the forearms, face and lower limbs. The diagnostic hypothesis was Gianotti Crostti Syndrome. Topical corticosteroid lotion was prescribed associated with antihistamine and therapeutic hydration. Conclusion: In terms of therapeutic approach, as GCS is commonly self-limited, it can be treated with supportive therapy to relieve pruritus, when present. Which can be done through topical emollients, lotions containing substances such as calamine and pramoxine, and also through antihistamines and low or medium potency topical corticosteroids.

Sporotrichosis by Sporothrix schenckii as a differential diagnosis of verrucous lesion on the face in an elderly patient: a case report

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Introduction & Objectives:

Sporotrichosis is a deep mycosis caused by the thermally dimorphic fungus Sporothrix spp, more incident in tropical and subtropical regions. The disease is multifaceted, with lymphocutaneous and fixed cutaneous presentations being the most frequently observed. Itraconazole and potassium iodide (KI) are the drugs of choice for the treatment of this infection. The aim of this study is to present a case of sporotrichosis by S. schenckii with a relatively atypical presentation on the face of an elderly patient successfully treated with KI, showing that the disease should be included in the differential diagnosis of verrucous lesions in the elderly.

Materials & Methods:

A 65-year-old male rural worker presented with infiltrated plaques with verrucous appearance and irregular erythematous borders located on the left zygomatic region and on the dorsum of the right hand for 4 months. There were no mucosal lesions or lymphadenopathy. The patient related the onset of the lesions to local trauma from a fall at his workplace. Biopsy of both lesions revealed suppurative granulomatous dermatitis with intermingled plasma cells and pseudoepitheliomatous epidermal hyperplasia. Fungal culture from the facial fragment revealed the growth of Sporothrix schenckii. Laboratory tests revealed that the patient was diagnosed with hepatitis C. Renal function, blood glucose, and other serologies were normal.

Results:

Treatment with KI solution in distilled water at a dose of 1 mg/kg/day was initiated, with resolution of the condition after 6 months of therapy.

Sporotrichosis caused by S. schenckii occurs through the inoculation of fungal fragments present in soil, plants, and contaminated organic matter. The presentation and clinical course are highly heterogeneous, making diagnosis difficult, with multiple differentials, including malignancies. Fungal cultures are the gold standard for detecting sporotrichosis since Sporothrix structures are difficult to observe in samples obtained from humans. The clinical form of the present case, with two fixed cutaneous lesions, is rare and likely occurred due to multiple inoculations by the trauma mechanism. Itraconazole is the first-line drug in adults and the elderly, but treatment with KI solution was chosen since the patient had a hepatic disease. The medication is indicated for localized cases of the disease, but especially in the elderly, thyroid dysfunction, renal insufficiency, iodine allergy, use of angiotensin-converting enzyme inhibitors, and potassium-sparing diuretics should be evaluated. The main adverse events are metallic taste in the mouth and nausea. During treatment, serum levels of TSH and free T4 should be monitored.

Conclusion:

This case report highlights the importance of sporotrichosis as a differential diagnosis of verrucous lesions in the elderly. KI is an effective, low-cost option with few side effects for treating localized forms of this mycosis.

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Immune reconstitution inflammatory syndrome (IRIS) in HIV-positive patients: Two cases of disseminated leishmaniasis as a manifestation of IRIS in French Guiana

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Introduction & Objectives:

Immune reconstitution inflammatory syndrome (IRIS) is an immune reaction observed with several opportunistic diseases in patients infected with HIV. We report 2 cases of disseminated leishmaniasis as a manifestation of IRIS.

Case reports:

A 39 year-old, infected with HIV and in a context of non-adherence to his ART was diagnosed in 2017 with *Leishmania guyanensis* cutaneous leishmaniasis. In 2020, after being lost to follow up for 3 years without any treatment, he was hospitalized for disseminated histoplasmosis and treated with amphotericin B. In 2023, in a context of recent reintroduction of ART with a CD4+ count at 101/mm3 (vs 20/mm3 in November 2022), he was admitted for fever and disseminated papulo-nodular, tumoral and ulcerative lesions associated with a papillomatous ulceration of the hard palate. Histological exam on skin biopsy showed giganto-cellular epithelioid granuloma and a dense polymorphous inflammatory infiltrate with Leishman bodies. PCR on a cotton swab from the palate identified *L. guyanensis*. The patient was then treated with pentamidine 12mg/kg with a complete cure.

A 50-year-old man was hospitalized in 2022 for multiple opportunistic infections in the context of HIV infection. ART was initiated during this hospital stay. Six months later he presented a purulent and inflammatory patch on the right ankle, which rapidly evolved into multiple annular purplish and ulcerative lesions on the trunk, limbs and face. One skin biopsy on a back lesion showed a giganto-cellular epithelioid granuloma with caseous necrosis suggestive of atypical mycobacteria, while another one showed Leishman bodies with epidermal hyperplasia typical of Leishmaniasis. PCR on skin swab was positive for *L. braziliensis*.

Discussion:

To date, 34 cases of leishmaniasis as a manifestation of IRIS have been described worldwide, with a clear predominance of visceral leishmaniasis and only 5 cases of cutaneous leishmaniasis. These two patients presented severe, disseminated and ulcerative lesions, with mucosal involvement for one of them. Host immune factors play an important role in disease severity in Cutaneous Leishmaniasis, and IRIS seems to be associated with severe clinical and histopathological involvements.

Conclusion:* These clinical cases highlight the importance of screening for opportunistic infections prior to the introduction of ART. Dermatologists working in endemic areas or with migrant populations should be aware of the specific clinical presentations of Cutaneous Leishmaniasis IRIS.

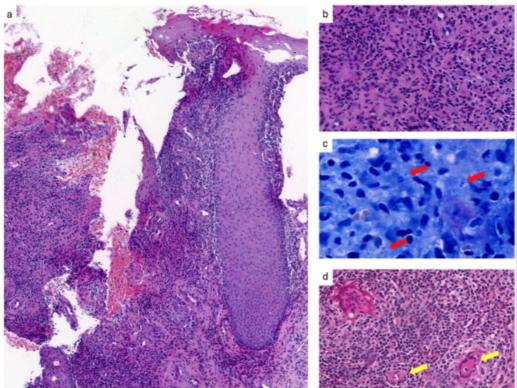


Figure 1: Histologic features of leishmanasis as manifestation of IRIS on cuteanous biopsy (a) Cuteanous biopsy showing epidermic hyperplasia and ulcération associated with a dense inflammatory of the the entire dermis (HE-stain x100). (b) Dense and polymorphous inflammatory infiltrate consisting of lymphocytes, multinuclear eosinophils, histiocytes and a few macrophages (HE-stain X400). (c) Diagnosis of leishmaniasis confirmed by the presence of small, rounded intramacrophagic or intrahistiocytic bodies measuring 2 to 4µm (red arrows) corresponding to Leishman bodies (MGG-stain x1000). (d) Granulomatous reaction in the mid-dermis with epithelioid cells and multinucleated giant cells (yellow arrows) confirming the IRIS due to Leishmaniasis (HE-stain X400).

Co-existence of Histoplasmosis and Kaposi's Sarcoma with aggressive and disseminated skin lesions in a HIV-infected patient

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Co-existence of Histoplasmosis and Kaposi's Sarcoma with aggressive and disseminated skin lesions in a HIV-infected patient

Introduction & Objectives:

We report the clinical case of a rare co-existence of cutaneous histoplasmosis and Kaposi Sarcoma (KS) with cutaneous and mucosal lesions.

Case report:

A 45-year-old man was referred to our Dermatology Department for asthenia, weight loss and fever. He also presented a budding mass of the mouth and disseminated purplish cutaneous nodular lesions. Microbiological diagnostic of histoplasmosis was easily made by direct examination on skin biopsy, showing multiple intramacrophagic ovoid yeasts from 2 to 4 µm corresponding to *Histoplasma capsulatum*. Histological examination of both cutaneous and endobuccal biopsies showed consistently numerous intramacrophagic yeasts corresponding to histoplasmosis, associated with a proliferation of endothelial cells with positive staining by the vascular marker CD31, with nuclear positivity of HHV8, confirming the co-occurrence of nodular KS. Corticosteroids, liposomal amphotericin B and symptomatic treatment including platelets transfusion were started, but the patient worsened. He suffered from digestive bleeding and disseminated intravascular coagulation, leading to death a few days after admission.

Discussion:

Histoplasmosis is a fungal infection endemic in North and particularly South America, secondary to *Histoplasma capsulatum var capsulatum* responsible for proteiform clinical manifestations leading to delayed diagnosis. This disease is the first cause of opportunistic infection in People living with HIV (PLWHIV) in French Guiana and its disseminated form can lead to rapid death. Kaposi sarcoma is a low-grade vascular neoplasm induced by HHV8 virus, and its epidemic form is associated with HIV infection. History of co-infection with KS and histoplasmosis found in the same skin lesion has only been reported once, but there are other descriptions of concomitant opportunistic infections: cryptococcosis, atypical mycobacteria, EBV, HSV and VZV. It is possible that the neo angiogenesis caused by KS attracts histoplasmosis yeasts to immunodeficient and hyper vascularized neoplastic lesions. On the other hand, histoplasmosis could act as a trigger for sarcoma development by chronic inflammation. In this patient, digestive bleeding might have been caused by histoplasmosis ulcerations or deep KS lesions in the digestive tract.

Conclusion:* This case report shows how several opportunistic diseases (infectious or neoplastic) can co-exist in the same mucosal or cutaneous tissue in PLWHIV. Dermatologists, mycologists and histopathologists should be familiar with the clinical and laboratory features of histoplasmosis. Indeed, disseminated infection in context of

immune depression can lead to rapid and severe deterioration or even death and liposomal amphotericin B should be started as soon as possible.

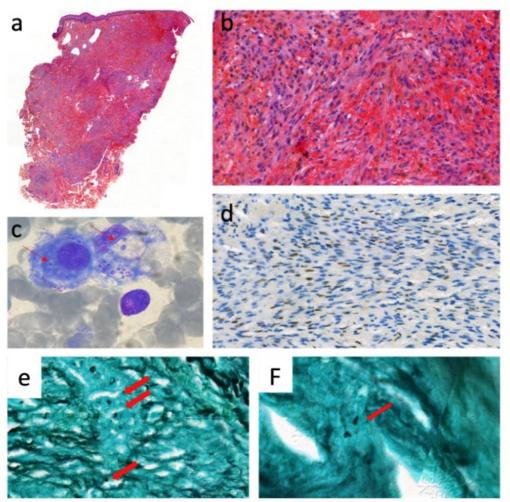


Figure 2 : Direct examination and histological features of cutaneous and mucosal biopsies of co-existence histoplasmosis and Kaposi sarcoma

(a) Cuteanous biopsy showing acanthosis and diffuse inflammatory infiltrate of the dermis with dilated blood vessels (HE-stain 100x). (b) Vascular proliferation of the surrounded with a lymphocytic and plasma cells infiltrant and numerous extravasated red blood cells (HE-stain 400x). (c) Diagnosis of histoplasmosis by direct examination of cutaneous biopsy showing numerous intra-magrophagic walled-yeasts of 2 to 4µm corresponding to Histoplasma capsulatum. (d) Diagnosis of Kaposi Sarcoma with 15-20% expression of endothelial cells by immunohistochemestry HHV8 marker (HHV8 antibody 400x). (e) Cutaneous and (f) mucosal biopsy showing small extracellular yeast confirming co-existence histoplasmosis and KS in both mucosal and skin lesions (Gomori Grocott stain 1000x).

Cutaneous sporotrichosis and concurrent dermatomyositis: the challenge of simultaneous management

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Introduction & Objectives: Sporotrichosis is the most common subcutaneous mycosis in Brazil. Like other infectious diseases, its control, clinical characteristics, and extent of involvement are related to its immune response capacity. In contrast, the treatment of dermatomyositis, an autoimmune disease characterized by muscle weakness and typical skin lesions, involves immunosuppression. The aim of this study is to highlight the complexity of clinical management of sporotrichosis in immunocompromised patients, especially when there is a need for concomitant treatment with immunosuppressive drugs such as methotrexate.

Materials & Methods: We report a case of a 49-year-old woman previously diagnosed with sporotrichosis in the left breast, undergoing treatment with itraconazole 200 mg/day, who was admitted to our sector with a recent diagnosis of cutaneous lupus erythematosus. She was taking prednisone 50 mg/day and hydroxychloroquine, without appropriate therapeutic response. Physical examination revealed erythematous plaques and papules in sun-exposed areas of the face, trunk, and upper limbs. The patient also presented heliotrope rash, shawl sign, V sign, and Gottron's papules. Laboratory tests and clinical findings ruled out lupus, favouring the diagnosis of amyopathic dermatomyositis due to the absence of myopathic symptoms. In this new context, we initiated methotrexate and programmed a gradual tapering of corticosteroids, in addition to maintaining itraconazole. The patient showed progressive improvement in the cutaneous lesions of dermatomyositis, but the left breast ulcer worsened significantly, even after increasing the dose of itraconazole to 400 mg/day. A new biopsy was performed with samples sent for histopathology and fungal culture, confirming the diagnosis of sporotrichosis once again. We continued itraconazole while methotrexate was suspended to focus on treating the persistent lesion.

Results: In the context of immunocompromised patients, sporotrichosis is associated with more severe presentations and greater therapeutic challenges. Other differential diagnoses such as pyoderma gangrenosum should be considered, especially in patients with autoimmune disease. For the therapeutical management, the objective of the health professionals is to balance the immunosuppression in order to treat the inflammatory condition and the activity of the immune response necessary to resolve the infectious condition.

Risk factors for recurrent lower limb cellulitis: A tertiary hospital emergency department study

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Introduction & Objectives:

Lower limb cellulitis is a frequently encountered acute dermatological soft tissue infection within Australian Emergency Departments (ED). Identifying modifiable risk factors that contribute to recurrent episodes of lower limb cellulitis can have a substantial impact on reducing healthcare costs and enhancing patient well-being. Our study aimed to identify risk factors associated with recurrent lower limb cellulitis. We aimed to identify the risk factors associated with recurrent cellulitis.

Materials & Methods:

We conducted a retrospective cohort study of adult patients with an ICD-10 AM diagnostic code of lower limb cellulitis at Monash Health, the largest multi-site health service within Victoria, Australia. Data was extracted and summarised from electronic medical records over a three-year period between 01 January 2018 and 31 December 2021. We defined recurrent episodes as repeat emergency department (ED) presentations that occurred more than 4 weeks after an initial presentation. Representations were defined as repeat ED presentations without complete disease resolution within 4 weeks of an initial presentation.

Results:

In total, 1197 patients and 1474 presentations were identified. The median number of episodes of cellulitis per patient during this timeframe was 1 (Range 1-7). Multivariable analysis revealed that when controlling for other risk factors, chronic lymphoedema was the most significant predictor of recurrent lower limb cellulitis [OR 3.64 [95% CI 2.02 - 6.56], p-value < 0.001], followed by previous cellulitis [2.17 [1.44 - 3.30], < 0.001], fungal infection [2.18 [1.09 - 4.37], < 0.05], venous insufficiency [2.02 [1.18 - 3.47] < 0.05], inflammatory dermatosis [1.99 [1.04 - 3.81] < 0.05] and immunosuppression [2.03 [1.08 - 3.84] < 0.05]. Previous cellulitis episode was the only risk factor associated with re-presentation of lower limb cellulitis to the ED within 4 weeks of initial presentation [5.93 [3.97 - 8.83], < 0.001]. Intravenous drug use (IVDU), type 1 or type 2 diabetes mellitus, recent surgery and peripheral oedema were not predictors of recurrence or representations of lower limb cellulitis.

Conclusion:

This evidence highlights the clinical significance of risk factors in lower limb cellulitis. Identifying patients at risk of recurrent cellulitis or representation to ED due to cellulitis may allow implementation of preventative measures to enhance patient care and reduce hospital visits.

Vulva, candidiasis and sodium-glucose cotransporter 2 inhibitors

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Introduction & Objectives: Sodium-glucose cotransporter 2 inhibitors (iSGLT-2) are a new class of oral antidiabetic agents. They include empaglifozin, canaglifozin, dapaglifozin, and ertuglifozin. iSGLT-2 increase glucose concentration in the urine and this pharmacologically induced glucosuria provides optimal conditions for microorganismal overgrowth, leading to an increased risk of genital and urinary tract infections. Genital mycotic infections are one of the most common adverse effects (5% or greater). This is especially relevant in postmenopausal women in whom vulvovaginal candidiasis are not common.

Materials & Methods: Retrospective descriptive study of women with vulvar skin disease and vulvovaginal candidiasis on iSGLT-2 treatment attended at the Dermatology Service of a tertiary Hospital in the last 5 years, from May 1st, 2019 to May 1st, 2024.

Results: A total of 73 patients on iSGLT-2 treatment were diagnosed with vulvovaginal candidiasis. The mean age at diagnosis was years 67.5 years (39-89 years). Most patients were postmenopausal women (95.9%). Among iSGLT-2, dapaglifozin, empaglifozin and canaglifozin were prescribed to 48 %, 37 % and 15 %, respectively. 94.5% of vulvar cultures were positive for *Candida albicans*, 19.17% for *Candida glabrata* and 5.48% for *Candida krusei*. 58.9% of patients were women with a previous vulvar dermatosis. 42.5% have discontinued their medication with resolution of vulvar symptoms.

Conclusion: In vulvar dermatology, inflammatory dermatoses, such as lichen sclerosus, neurodermitis or lichen planus, are the most frequently diagnosed diseases. Glyfozins, a pharmacological group increasingly used due to their efficacy in diabetes mellitus and their good cardioprotective and renal profile, have as one of their adverse effects the possible development of genital candidiasis. We have observed a significant increase in vulvovaginal candidiasis among our patients, most of them postmenopausal, who have an overlapping disease of vulvovaginal candidiasis on their previous pathology. It is important to ruled out candida infection in iSGLT-2 treated patients with vulvar skin diseases, given the atypical and extensive skin involvement and the similarity of symptoms with their vulvar dermatoses.

Concurrent Sweet Syndrome and Orf Virus Infection: A Rare Dermatological Encounter Highlighting Zoonosis Awareness

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Introduction & Objectives:

Sweet syndrome, or acute febrile neutrophilic dermatosis, represents a rare dermatological condition characterized by sudden onset tender, erythematous papules, plaques, or nodules on the skin, often accompanied by systemic symptoms such as fever. Despite being extensively studied, its precise etiology remains incompletely understood, although associations with various underlying conditions including infections, inflammatory bowel disease, malignancies, and medications have been reported.

Materials & Methods:

Case report and review of articles in Medline

Results:

A 67-year-old male was evaluated for a dermatosis evolving over 24 hours, manifested as swollen erythematous-violaceous papules and plaques on the face, neck, forearms, and palms, associated with fever. Two weeks prior, a hard white papule appeared on his left 4th finger, progressing to a violaceous nodule with raised borders, blister formation, and erosion at the apex. Six weeks earlier, he had manipulated a wound in a sheep's mouth, as he resides on a farm raising sheep and ducks. Histopathology revealed nodular lesions consistent with Orf (with eosinophils and the presence of coilocytes) and forearm plaque consistent with Sweet syndrome, exhibiting a rich eosinophilic infiltrate too. Systemic and topical corticosteroid therapy (applied to the face, forearms, and neck) led to resolution of the dermatosis. Multiple nodules similar to the initial lesion appeared on both hands in the subsequent days, resolving spontaneously over weeks.

Conclusion:

This case illustrates Sweet syndrome associated with contagious ecthyma – a zoonosis caused by the Orf virus, transmitted through contact with ovine and caprine livestock. The association between Sweet syndrome and viral infections, particularly Orf virus, is a rarely reported phenomenon, highlighting the diverse clinical manifestations of viral-induced dermatoses. While a rare association between two uncommon pathologies, typical clinical features facilitated the presumptive diagnosis, with eosinophilic infiltrate in Sweet lesions aiding in establishing causality (a characteristic finding of Orf syndrome). The coexistence of Sweet syndrome with Orf virus infection underscores the importance of considering zoonotic infections in the differential diagnosis of dermatological conditions, especially in individuals with relevant environmental exposures.

Epidemiology of Superficial Fungal Infections in Terciary Portuguese Hospital: 2-Year Review (2022-2024)

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Introduction & Objectives: Superficial fungal infections constitute the foremost infectious dermatoses, with an escalating incidence trend. Dermatophytes predominantly drive these infections, showcasing significant geographic variability. This study seeks to elucidate epidemiological patterns to facilitate targeted public health interventions and enhance patient care strategies.

Materials & Methods: Characterization of the epidemiology of superficial fungal infections diagnosed in a Dermatology Department of an Terciary Portuguese National Health System Hospital between January 2022 and April 2024, through a retrospective analysis of the results of positive cultures performed during this period. Data regarding patient demographics, clinical presentations, laboratory findings, and geographic distribution were also analyzed.

Results: A total of 187 isolates from 178 patients were included in the study. Trichophyton rubrum emerged as the predominant dermatophyte, accounting for 35.8% of isolates. It was also the primary causative agent of glabrous skin tinea (70.1%) and onychomycosis (19.4%). Microsporum audouinii was the most prevalent agent in tinea capitis cases (45.8%), followed by Trichophyton rubrum (25%), Trichophyton soudanense (12.5%), and Trichophyton tonsurans (12.5%). Yeasts were predominantly isolated in cases of onychomycosis (58.5%).

Conclusion: The findings of this study corroborate existing literature, highlighting Trichophyton rubrum as the predominant dermatophyte in superficial fungal infections. This emphasizes the importance of targeted management strategies, tailored to the prevalent pathogens within the population. Such insights are crucial for optimizing patient care and informing public health initiatives aimed at mitigating the burden of superficial fungal infections.

Mycetoma caused by Madurella mycetomatis: a still unknown infectious burden

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Introduction & Objectives:

Madura foot or mycetoma is a chronic infectious disease, endemic in tropical and subtropical countries. It is a rare and little-known pathology in non-endemic regions. Its management is a real challenge due to its long duration, the expensive cost of treatment and the absence of a defined protocol, explaining its serious complications which can compromise functional and sometimes vital prognosis of patients.

We report 3 cases of a eumycetoma of the foot in a non endemic region.

Materials & Methods:

We present the cases of 3 patients, two men aged respectively 25 and 50 years respectively and a women aged 30. The first man presented years ago a history of a nodule located on the right forefoot and lower extremity of the leg, which has progressively increased in size until it became a swollen and painful polyfistulised tumor emitting black grains. The other two patients presented with the same lesions that started months ago on the sole of the left forefoot. No previous trauma or injury of the foot and no travel to an endemic zone were reported.

On physical examination, the first patient had an indurated inflammatory tumor of the dorsal surface of the right forefoot and leg measuring 20x12cm, adherent to the skin and to deep structures, with many visible orifices, which let emerge seropurulent sometimes hematic fluid and small black grains whereas the two other patients had the same clinical presentation but a smaller tumor size. The clinical, histological, mycological and radiological features were in favor of eumycetoma due to Madurella Mycetomatis. Due to the years of delay in the first patient, we noted an extension to the bone indicating an amputation of the leg. Considering the patient's refusal, the therapeutic decision was to combine surgical treatment consisting of wide debridement with a treatment with a voriconazole for 3 months at a dose of a relay with terbinafine. Faced with the lack of improvement on treatment, a treatment with itraconazole (400 mg/day) was started with very good improvement after 9 months. Despite the extension of the infection to the bone, we were still able to obtain a very satisfactory result.

The two other patients, underwent mild surgical debridement and were treated with terbinafine during 2 years with a good evolution, highlighting the importance of early diagnoses.

Results:

Mycetoma is a chronic granulomatous infection of the skin and subcutaneous tissue. It can be caused by filamentous bacteria (actinomycetoma) or fungi (eumycetoma).

Although mycetoma was recognized by the WHO in 2016 as a tropical disease, sporadic cases have been described in temperate zones where the incidence of the disease is rare, posing diagnostic problems.

The characteristic triad of the disease includes swelling, fistulization of the abscess and emission of colored grains of a fungal or bacterial nature. Mycological and histological confirmation is necessary to confirm the diagnosis. The extension occurs in depth leading to muscular and bone invasion which conditions the therapeutic conduct, as

well as distant dissemination by lymphatic route. Actinomycetomas evolve favorably on antibiotics, while eumycetomas require a combination of surgical treatment and antifungals and often have a poor prognosis. Eumycetoma is generally refractory to medications and requires a prolonged duration of treatment.

Conclusion:

Our cases suggest the importance of increased awareness of mycetoma in clinical practice, especially in non-endemic regions.

investigation of the relationship between demodex infestation and thyroid autoimmunity

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Introduction & Objectives: Demodex mites are ectoparasites that are members of the microflora living commensally in the pilosebaceous units of human skin. When their numbers exceed a certain level, they cause demodicosis by transforming their relationship with the host into parasitism. Demodicosis may be primary or secondary to various immunosuppressive diseases and treatments. On the other hand, thyroid hormones have receptors in the skin and have many immune-mediated effects, especially epidermis proliferation and inflammation through nuclear signalling. Changes in thyroid hormones have many clinical effects on the skin. In our study, we hypothesised that xerosis, prickly, rough and papular skin structure, which are common findings in demodicosis clinic, can also be seen in autoimmune thyroid diseases, and that immune dysregulation and immunosuppression occurring in the pathogenesis of autoimmune thyroid disease may increase demodicosis colonisation and lead to clinical findings and demodicosis, and we tried to reveal the risk of autoimmune thyroid disease development in patients.

Materials & Methods: Our study was planned with a total of 201 patients who were admitted to Kayseri City Training and Research Hospital Department of Dermatology with the diagnosis of demodicosis or rosacea and who had not received topical or systemic acaricide treatment in the last month. Thyroid hormone profile (TSH, T3, T4), thyroid autoimmunity antibody (anti-TPO) were studied and the number of demodex per 1 cm2 of the lesioned skin area was measured by standardised skin surface biopsy (SSSB). Patients who had facial erythema, described flushing attacks, had burning and stinging sensation in the face and eyes with triggers such as sunlight, stress and spices, and had facial erythema, telangiectasia, xerosis, rough and prickly skin structure were accepted as Type 1 Demodicosis, also known as pityrasis folliculorum or erythema-telangiectatic type; patients with xerosis, erythema, papules and pustules with burning and stinging sensation on the face were considered as Type 2 Demodicosis, also known as rosacea-like or papulopustular demodicosis.

Results: Demodex levels were positive and higher in patients with positive anti-TPO levels, while demodex levels were negative and lower in patients with negative anti-TPO levels (p=0.008). While the mean demodex levels measured in type 1 demodicosis patients were negative, demodex levels were positive in type 2 demodicosis patients (p<0.001). While anti-TPO levels were negative in type 1 demodicosis patients, anti-TPO levels were positive in type 2 demodicosis patients (p<0.001). The mean number of demodex measured per 1 cm2 was positively correlated with anti-TPO levels (0.144, p:0.043). The increase in the mean number of demodex measured per 1 cm2 had a predictive value of 0.6138918 (p=0.004) for anti-TPO positivity.

Conclusion: Our study reveals that the frequency of autoimmune thyroid disease is statistically significantly increased in patients with type 2 demodicosis symptoms such as erythema, papules, pustules and occasionally suppurative abscesses. In addition, the positivity and increase in demodex numbers have a predictive value in terms of the risk of autoimmune thyroid disease due to anti-TPO positivity. As a result, studying thyroid autoantibodies in patients with demodicosis or rosacea findings in clinical practice may provide early diagnosis and treatment for autoimmune thyroid disease.

Cutaneous Leishmaniasis due to Leishmania infantum in Morocco: an emerging species

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Introduction:

Cutaneous leishmaniasis (CL) is an endemic parasitic infection in Morocco. Three nosogeographical forms were classically described: zoonotic CL due to Leishmania major in the south, anthroponotic CL due to Leishmania tropica in the central regions and sporadic CL due to Leishmania infantum in the north. Over the past decades, the epidemiological and clinical profile of CL has been constantly changing. Herein, we report the epidemioclinical profile of CL caused by Leishmania infantum in Morocco.

Patients and Methods:

A cross-sectional study was conducted between 2012 and 2023, during which epidemiological and clinical data were collected from patients with confirmed CL through an information sheet. Then, samples were obtained from each patient for parasitological and molecular diagnosis, and only patients with positive polymerase chain reaction and genotyping results were included in the study.

Results:

20 patients were included. The mean age was 30.5 years (1-77) and the sex ratio H/F was 0.82.

The main geographical origins of the patients were Draa Tafilalt [n=6; %], Marrakech Safi [n=4; %] and Fès-Meknès [n=4; %]. 55% (n=11) of our patients were diagnosed after staying during the summer period in an endemic area . 95% (n=19) lived in rural environments. In these environments, the presence of stray dogs was observed in 95% of cases. The average incubation period was 6.5 months (4-8), and the average duration of lesion at the time of diagnosis was 6.5 months (4-8).

Clinical presentations included: papulo-nodular form (47%), ulcerative-vegetative form (22%), and presence of violaceous-red rim (29%). Cutaneous lesions were mostly solitary (70%), with an average size of 17mm. The upper limbs were the primary site followed by the face (37%), lower limbs (15%), and trunk (4%). Parasitological examination was performed in all patients and was positive in 70% of cases. PCR confirmed the presence of L. infantum in all patients.

Discussion:

This study showed a new evolution of the epidemioclinical profile of CL in Morocco.

Indeed, we illustrated an increase in the number of cases of CL due to L. infantum, with a geographic expansion of this species towards the south of Morocco with nonspecific clinical features.

This new aspect of the epidemiology of CL in our context could be explain by the increasing human mobility, including travel and migration, growing reservoir host populations as well as expansion of vector species caused

by climate and habitat changes, urbanization and globalization. Therefore, increased awareness of the disease, including the potential for transmission in areas previously unaffected are essential components of global efforts to control CL.

Dermanyssus gallinae dermatitis in a young Italian woman: a case report

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Introduction & Objectives:

Dermanyssus gallinae, also known as the red poultry mite or chicken mite, is the most common parasitic mite associated with feral pigeons. Here we present a case of a 32-year-old italian woman who complained persistent pruritic skin lesions. The patient reported the onset of symptoms approximately three days before, characterized by multiple itchy erythematous papules, some with central vesicles and excoriations scattered across her arms, trunk, and legs.

Materials & Methods:

On clinical and dermoscopical examination we found many mites walking on the body of the patient. A dermoscopical image of red mite was taken and compared with those present in the literature; the causative agent was recognized as Dermanyssus gallinae and the diagnosis of chicken mite dermatitis was confirmed.

Results:

The patient was advised to implement strict hygiene measures, including the destruction of nests from gutters, the use of permethrin-based acaricide spray on the walls and cleaning of surfaces with 100°C steam. Patient was started with cetirizine 10 mg once a day plus mometasone furoate cream for 10 days in order to alleviate itching and inflammation. A follow-up appointment was scheduled for two weeks to assess the response to treatment and ensure resolution of symptoms. The patient showed a complete clearance of the lesions and was counseled on preventive measures to minimize future exposure to chicken mites.

Conclusion:

This case highlights the importance of considering environmental factors, such as exposure to poultry or feral birds and their associated parasites, in the evaluation of dermatological conditions.

Re-emergence and control of leprosy in French Guiana, 2007-2023

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Introduction & Objectives: French Guiana is a French overseas territory in South America, characterized on one hand by a harsh Amazonian environment and a high incidence of infectious diseases, and by a French universal health care system on the other hand. Leprosy has been present in French Guiana since the 1700s, but its incidence decreased and almost disappeared in the early 2000s. However, a surveillance and control system was maintained. Our objectives were to determine the evolution of its epidemiology over the last 16 years.

Materials & Methods: All cases of leprosy confirmed by histopathology between January 1ST 2007 and 31th December 2023, seen by the leprosy control teams over French Guiana were included. Epidemiological and clinical data were prospectively recorded.

Results: During the study period, 204 new cases of leprosy were detected. The prevalence rate was constantly above 1/10 000 inhabitants between 2009 and 2014, then decreased and remained under this threshold between 2015 and 2023. A peak was observed with 29 new cases in 2009, then decreased and remained between 5 and 15 new cases/year until 2023. We recorded 130 cases of multibacillary leprosy (MB) (64%) and 74 paucibacillary cases (PB) (36%). Disabilities were noted in 81 patients (40%) over the study period. Only 17 paediatric patients were recorded. In total, 138 patients (68%) were born in Brazil, most of them working as gold miners in the rainforest hinterland. Concerning treatment, rifampicin, clofazimine and clarithromycin/dapsone were the most used drugs (80%), and we did not record any resistant case. 78 patients (38%) were, at some point at least, lost to follow-up, leading to treatment interruption. Leprosy reactions were recorded in 30 patients (data available since 2015 only), all of them being treated with systemic steroids. Three patients received infliximab and one received apremilast to allow the interruption of steroids. Only one patient underwent surgical neurolysis.

Conclusion: While leprosy was historically observed among Creoles and Maroons inhabitants of French Guiana and had almost disappeared from this territory, a re-mergence was observed around 2009, crossing the WHO threshold defining a major public health problem. An epidemiological shift towards patients of Brazilian origin was observed. More than half of new cases concerned gold miners who may have been exposed in the rainforest environment or contaminated during migration. Paediatric cases were rare but MB cases frequent, suggesting an intermediary bacillus circulation. From the therapeutic point of view, interesting but expensive new options appeared after 2020 for the treatment of leprosy reactions. Follow-up and treatment interruptions remain a major problem in this Amazonian remote environment.

Hansen's disease in a patient with Pigmentous Lichen Planus: A serendipity.

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Introduction & Objectives:

Hansen's disease or leprosy is an infectious, chronic, granulomatous disease, caused by the acid-fast bacillus Mycobacterium leprae. In Colombia, during 2020 the prevalence was 0.51 per million inhabitants, considered an endemic disease with mandatory notification. Indeterminate leprosy corresponds to the initial form of the disease where thermal, superficial tactile and painful sensitivity is generally altered. On the other hand, lichen planus is a dermatosis of unknown origin that can affect the skin, mucous membranes and nails. Pigmentous lichen planus is a rare variant of lichen planus, it is generally located in photoexposed and flexion areas. Lichen planus pilaris is described mainly in women between 40 and 60 years of age, resulting in scarring alopecia due to the destruction of hair follicles. Through this clinical case we present the association between lichen planus pigmentosum and Hansen's disease in an endemic area.

Results:

We reported the case of a 56-year-old patient from a rural area endemic for Hansen's disease, in Colombia. She mentioned that for two years she has had the appearance of grayish macules on the neck, facial region and nape of the neck with progression to the chest, asymptomatic; in addition to hair loss. The physical examination revealed madarosis, mylphosis, alopecia with regression of the frontotemporal capillary implantation pattern with the presence of grayish-violet macules with a lichenoid appearance. In the systems review, she reported paresthesia in the upper and lower limbs for approximately 20 years that the patient associated with a history of a car accident; without other additional findings. Trichoscopy was performed, revealing peritubular cylinders, interfollicular peeling with absence of ostium follicularis that suggests lichen planus pilaris, a cicatricial alopecia. Clinically, a diagnosis of lichen planus pigmentosum on the skin and lichen planus pilaris on the scalp is made. A biopsy of the neck and scalp skin is taken to confirm the suspected pathologies. In addition, acid-fast bacilli confirmed by Ziehl Nielsen staining in neck skin biopsy were evident. Leading to the final diagnosis of lichen planus pilaris and pigmentosum where the discovery of indeterminate leprosy was a serendipity.

Conclusion:

This clinical case would be the first association in the literature between lichen planus pigmentosum and indeterminate leprosy. The lesions that the patient could have developed due to Hansen's disease were hidden by lichen planus pigmentosum, so the diagnosis was made pathologically. The patient's clinical condition was not initially related to leprosy since she only presented paresthesias as a confusion factor with a previous car accident; otherwise, the disease was not evident, leading to complications in her diagnosis; however, it must be taken into account that it is a clinical case originating in an endemic area of the infectious disease.

cutaneous erysipeloid leishmaniasis: a case report

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Introduction & Objectives:

Cutaneous erysipeloid leishmaniasis is a rare clinical form that can be deceptive, leading to diagnostic delays and therapeutic wandering. It is a diagnosis to consider in the presence of any clinical presentation resembling erysipelas that does not respond to appropriate antibiotic therapy.

Materials & Methods:

A 54-year-old female patient from southern Morocco, with no particular medical history, menopausal for one year, was admitted to the dermatology department with a painless erythematous swelling of the right hand and forearm evolving over 3 months, for which the patient received several courses of antibiotics without improvement.

Clinical examination revealed an erythematous, edematous, infiltrated, and scaly plaque with a verrucous center topped with an adherent crust, extending over the the right hand, wrist and forearm with major limitation of wrist joint mobility.

Considering the patient's region of origin, the clinical appearance, the prolonged course, and the lack of response to antibiotics, several diagnoses were considered, including cutaneous leishmaniasis, which was confirmed by skin smear revealing intracellular Leishmania amastigotes. In our context, PCR and histological examination could not be performed due to lack of resources.

The patient initially received 15 days of clarithromycin and metronidazole with slight improvement, followed by systemic treatment with intramuscular injections of meglumine antimoniate at a dose of 20 mg/kg/day of antimony for 20 days. The only adverse event observed was a threefold elevation of lipase, which normalized after a treatment adjustment, with no other notable incidents. Clinical improvement was marked by significant deswelling of the lesion and restoration of normal wrist function.

Discussion:

Cutaneous erysipeloid leishmaniasis is a rare, atypical form, probably underdiagnosed due to lack of awareness among clinicians. It typically presents as an infiltrated erythematous plaque with a prolonged course. Although its etiopathogenesis is still unclear, several hypotheses have been proposed in the literature, including age-related immune alterations, hormonal changes of menopause, specific parasite subtype, trauma as a triggering factor, and nonsteroidal anti-inflammatory drugs use as an aggravating factor. In our patient, advanced age and menopause were present, but there was no history of trauma or nonsteroidal anti-inflammatory drugs use.

Conclusion:

Cutaneous leishmaniasis remains a major public health issue in Morocco, with its erysipeloid form likely being underdiagnosed due to lack of clinician awareness, leading to considerable diagnostic delays. It is important to consider this diagnosis in the presence of any erysipelas-like lesion with a prolonged course that does not respond to antibiotics, especially in patients from endemic regions.

seasonality of infectious cutaneous diseases in inpatient dermatology

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Introduction & Objectives:

Many dermatological conditions exhibit seasonal variations in their clinical worsening and incidence. There is little data in the literature concerning admissions in dermatology. The aim of our study is to investigate the seasonality of infectious dermatosis in inpatient dermatology.

Materials & Methods:

We conducted a retrospective study including all patients admitted to the dermatology department of the Military hospital of Tunis during a period of five years (2018-2022) for infectious diseases. Data were obtained from patients' medical records.

Results:

In total, 405** admissions were evaluated, with 91.2% male patients. The mean age was 34.9 years. The main reason for admissions was bacterial infections (64.8%, n=315) dominated by erysipelas (41.5%, n=131), ecthyma (18.7%, n=59) and impetigo (13.9%, n=44). Cutaneous leishmaniasis accounted for 18,52% (n=90) of all infectious dermatosis.

We observed a resurgence of infectious dermatosis during the autumn (45.7%, n=222) and summer (25.9%, n=126) months. We noted 17.7% (n=86) admissions in winter and 10.7% (n=52) in spring. Admissions showed a peak in autumn for erysipelas (31.9%, n=71) and ecthyma (15.3%, n=34). In summer, we noted 38.8% (n=49) admissions for erysipelas and 15% (n=19) admissions for ecthyma. In winter, hospitalizations for erysipelas accounted for 8.1% (n=7) and 6.9% (n=6) for ecthyma. However, in spring, only 7.6% (n=4) of admissions for erysipelas were noted and no admissions for ecthyma were observed. More patients were admitted for impetigo in autumn (11.2%, n=25) whereas few were noted in other seasons (summer 5.5%, winter 10.4%, spring 5.7%). Cutaneous leishmaniasis showed a peak in autumn (19.8%, n=44) and winter (33.7%, n=29). In spring, we noted 19.2% (n=10) admissions for leishmaniasis and only 5.5% (n=7) in summer. A statistically significant association was found between all infectious dermatosis and the different seasons (p<10-3).

Conclusion:

This differs partially from a study by Kozlowska et al., in which they noted that the peak of hospitalization for erysipelas was in summer followed by autumn. In a review conducted in the USA, Leekha and al. noted that skin infections with *Staphylococcus aureus* peaked either in autumn or summer. However, a study carried out in Iran showed that bacterial dermatosis had a winter resurgence. For cutaneous leishmaniasis, a peak was observed in autumn. Given that sandfly bites are more prevalent during the summer, the occurrence of leishmaniasis peaks in autumn. Considering that infectious cutaneous diseases are more frequently observed in autumn and summer, patients and dermatologists should be aware of potential triggers and take appropriate measures to manage their symptoms accordingly throughout the year.

Lepromatous leprosy with serious neurological complications due to neglected diagnosis

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Introduction: Leprosy is a disease caused by Mycobacterium leprae, which can present in two forms: paucibacillary, with up to 5 lesions with or without neural involvement, and multibacillary, with more than 5 lesions and involvement of two or more nerves. Case Report: A 38-year-old male patient, a rural worker of low socioeconomic status, was referred to the Dermatology Outpatient Clinic due to skin patches, about which he had little to report. Upon physical examination, it was noted that the pathology had been present for many years, as he presented with erythematous infiltrated plaques on the trunk and hands, with fixed and mobile claw fingers, scars from burns, and amputation of the left fifth digit. The feet were in a similarly precarious condition, with toe amputations and neurotrophic ulcers. Dermato-neurological examination revealed loss of thermal, tactile, and painful sensitivity, explaining the burns on the hands, associated with thickening of the ulnar, tibial, and fibular nerves, which were tender to palpation. In his history, he reported that blistering lesions often appeared on his hands, usually in the morning, as he helped his wife in the kitchen with a wood-burning stove and during dinner, where he likely burned himself without realizing it. Due to these occurrences, he always sought medical assistance, both for the blisters and the neurotrophic plantar ulcers and subsequent amputations. Given the described picture, a diagnosis of dimorphic leprosy was established, and multidrug therapy for multibacillary leprosy was initiated. Conclusion: Due to the extent and locations of the lesions, the duration of the condition, it was concluded that our patient has the multibacillary form of leprosy. Initially, leprosy manifests as the paucibacillary form, which subdivides into the indeterminate and tuberculoid forms. When left untreated, as was the case with the patient in question, the disease progresses to the chronic or multibacillary form, which can present as dimorphic, with more than five lesions with poorly defined borders and involvement of two or more nerves, or as the virchowian form, which is the most disseminated form of the disease, with lesions in organs such as the kidneys. In view of the clinical presentation, the instituted therapy was multidrug therapy for multibacillary leprosy, consisting of monthly supervised doses of rifampicin, dapsone, and clofazimine for 12 months within an 18-month period. At the end of this treatment, the patient may be discharged. Stigma remains a significant complication of leprosy and has cultural, social, and economic repercussions. Treating leprosy in its early stage is important because by preventing disability associated with leprosy complications, stigma will be reduced.

Confronting Global Scabies in the 21st Century: A Challenge in Modern Healthcare

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Introduction & Objectives:

Reports from multiple nations suggest a growing incidence of scabies, particularly over the past two decades (with prevalence rates ranging from 0.2% to 71%). Hence, our aim was to outline the key information on this topic for the 21st century.

Materials & Methods:

In this review/overview, we have considered literary data and reports from medical databases, along with numerous published articles on scabies prevalence and incidence published between 2000 and 2022 to illustrate epidemiological data across various regions of the world.

Results: Scabies infestations tend to be more prevalent in developing nations, regions with tropical climates, and areas with limited access to water. Studies indicate that the highest occurrences of scabies are documented in East Asia, Oceania, Southeast Asia, South Asia, and tropical Latin America. Notably, among the nations with the highest incidence rates are Cambodia, China, Fiji, Indonesia, Laos, Myanmar, Seychelles, Timor-Leste, Vanuatu, and Vietnam.** Similarly, research from Europe highlights a rising occurrence of scabies, particularly among frequent travelers, asylum seekers, refugees, populations in regions with insufficient water supply and poor hygiene, and younger age groups. This upward trajectory in scabies cases over the past two decades is supported by research carried out in Norway, France, and Croatia. Specifically in Croatia, a comprehensive analysis of infectious disease reports spanning from 2007 to 2017 revealed a sixfold increase in scabies infestation, notably affecting children and young adults.** Moreover, more than 80% of scabies outbreaks in Croatia were reported in nursing homes serving the elderly and infirm. Remarkably, there was a threefold rise in scabies incidence rates in Zagreb between 2014 and 2017.

Conclusion: Scabies poses a significant global public health challenge, particularly impacting younger populations and areas with frequent population movements and socioeconomic disadvantages. Addressing this issue requires cooperation among healthcare professionals, governmental bodies, and non-governmental organizations, with an emphasis on timely diagnosis, treatment, education, and accessible healthcare to avoid transmission and improve control strategies worldwide.

Pityriasis lichenoides chronica or vasculitis or something else? A labyrinth of diagnostic procedures

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Introduction & Objectives:

Skin exanthema can result from various diseases and conditions. Pityriasis lichenoides chronica (PLC) is a rare dermatosis of unknown origin, characterized by reddish-brown papules with scales, which can sometimes progress to cutaneous T-cell lymphoma. Cutaneous vasculitis includes several groups of diseases characterized by inflammation of blood vessels in the skin, affecting capillaries, venules, arterioles, and lymphatic vessels, leading to a range of clinical symptoms. Although triggered by different factors, the underlying cause often remains elusive, with the condition typically resolving spontaneously.

Materials & Methods:

We present a case of non-specific exanthema displaying vasculitis-like skin lesions and pityriasis lichenoides chronica-like lesions. Our presentation incorporates the clinical picture of the patient and laboratory findings.

Results:

A 54-year-old man, previously healthy and without any notable medical history, presented with a disseminated exanthema that had appeared two months earlier. He displayed disseminated, indurated, livid papules on the trunk and limbs, accompanied by itching. He had previously been evaluated by a local dermatologist who referred him to a tertiary hospital center. Initially, the patient received symptomatic treatment with antihistamines, as well as oral and topical corticosteroids. A skin lesion biopsy was performed, and a non-specific histological finding was obtained, so the patient was referred for further investigations. Laboratory tests indicated abnormal blood parameters (anemia, lymphopenia, thrombocytopenia, elevated gamma globulins) and cervical lymphadenopathy (detected via ultrasound), suggesting a possible lymphoproliferative disorder. Among the requested workups were serological tests for syphilis (RPR, TPHA, FTA-ABS), which proved positive, leading to the initiation of syphilis treatment. However, subsequent diagnostics revealed a positive serological test for HIV, necessitating referral to an infectious disease specialist.

Conclusion:

Skin exanthema warrants investigation into various diseases and conditions, including syphilis. Atypical skin manifestations of secondary syphilis should be considered, as well as the possibility of concurrent HIV infection, as both diseases can mimic other dermatoses. Therefore, due to the nonspecific and overlapping features of certain skin conditions, a thorough evaluation of each diagnosis is essential.

Clinical-Pathological Analysis of Deep Mycoses: 11 year's Retrospective Study at a tertiary care hospital in Pakistan

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Introduction & Objectives:

Subcutaneous mycoses are uncommon but their incidence has increased in last few decades. Although there have been few studies focusing on subcutaneous mycoses, there are very limited data available from Asian countries including Pakistan. Despite the rarity of deep mycoses, their burden is immense because they can prove to be lethal if not diagnosed early, especially in immune-compromised patients. In this study, a retrospective medical record of the patients with subcutaneous mycoses, presenting at the dermatology department of tertiary care hospital in Lahore, has been analyzed.

Materials & Methods:

The medical record of indoor and outdoor patients, presenting to dermatology department of Mayo hospital, from Jan 2013 to Jan 2024, was annalyzed reterospectively. 48 cases of subcutaneous mycoses were found and their clinical presentations, type of subcutaneous mycoses, underlying predisposing factors, aetiological organisms identified through culture and histopathology, and management offered to each evaluated.

Results:

Out of 48 patients, 36 (75%) were males and 14 (25%) females. 20 (41.6%) were in age range between 15 to 30 years, and 28 (58.4%) patients fall between 31 to 60 years. 25 (65.8%) cases had lesions on lower limbs, 6 (12.5%) presented with head and neck area involvement, 5 (10.4%) had lesions on upper limbs, and 12 (25%) patients presented with lesions on multiple sites. Mycetoma was the most common subcutaneous mycoses in our study in which, 21 (43.7%) were of eumycetoma and 8 (16.6%) actinomycetoma. Chromoblastomycosis was the second commonest subcutaneous fungal infection with 13 (27%) patients, followed by 2 (4.16%) cases each of mucormycosis and sporotrichosis, and 1 (2.08%) case each of lobomycosis and pheohyphomycosis.

Conclusion:

Mycetoma is the most common subcutaneous mycoses, and is more common in males with rurual background. High index of suspicion and prompt diagnosis is essential for favorable prognosis in patients with deep mycoses which can cause significant morbidity and mortality.

Tuberculosis lupus with ocular complication: presentation and management: about a case

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Introduction & Objectives:

Cutaneous tuberculosis is an infection caused by Mycobacterium Tuberculosis (MT). In endemic regions like Morocco, it occupies fifth place among extra-pulmonary forms, and remains relevant in our country due to its frequency and clinical aspects. Its diagnosis constitutes a major clinical challenge, given its anatomoclinical polymorphism and the multitude of differential diagnoses. We report the case of a patient with facial lupus tuberculosis leading to ocular complication, shedding light on the importance of early recognition and appropriate management.

Materials & Methods:

A 40-year-old female patient, from a rural area and from a modest socio-economic status, with a history of high blood pressure, consulting for a chronic retractile plaque on the right cheek evolving over two years, resistant to antibiotic treatment. The initial lesion appeared as a soft micronodule gradually increasing in size with the development of multiple ulcerations progressing to synechian lesions and extension towards the orifice of the right eye. Associated signs included right ocular redness, photophobia, and chronic tearing. The general condition was preserved.

Results:

Clinical examination revealed a large erythematous, scaly plaque with a raised border and central depression, retracting the right lower eyelid. Ophthalmologic examination revealed conjunctivitis, blepharitis and ectropion of the right eye. Dermoscopic examination under polarized light showed a pinkish-orange background, as well as a vascular pattern and whitish streaks. Given the suspicion of a granulomatous process, a skin biopsy was performed confirming the presence of a giant-cell epithelioid granuloma without caseous necrosis. The intradermal tuberculin test was negative, leading to a diagnostic challenge, and requiring additional angiotensin-converting enzyme (ACE) testing to rule out sarcoidosis. The entire biological and radiological assessment looking for latent visceral tuberculosis was normal and HIV serology was negative. The diagnosis of cutaneous tuberculosis in its lupus tuberculosis form was established, and the patient was placed on anti-tuberculosis treatment according the therapeutic regimen recommended by the national program, with a favorable clinical evolution after two months, actually the patient is on her third month of treatment.

Conclusion:

In our context of practice, where the prevalence of tuberculosis remains high, cutaneous tuberculosis must be considered as a major etiology in the presence of chronic, mutilating skin lesions, particularly in regions where tuberculosis is endemic such as Morocco. This observation illustrates the diversity of clinical presentations, the multiplicity of differential diagnoses, and the risk of mutilation which can lead to an aesthetic impact or even serious complications, highlighting the interest in our context of developing molecular biology techniques for the implementation evidence of Koch's bacillus in pauci bacillary forms. Early recognition of this disease and appropriate management are essential to prevent complications and improve patient prognosis.

Topical Statins as Antifungals

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Introduction & Objectives:

Fungal infections present a significant threat to public health, leading to substantial mortality and morbidity. Superficial mycotic infections are highly prevalent, with skin mycoses affecting approximately 20-25% of the global population, making them among the most common forms of infection. The emergence of fungal resistance to existing antifungal agents presents as a pressing challenge. Statins, primarily recognized for their cholesterol-lowering properties through the inhibition of 3-HMG-CoA reductase, have garnered attention for their potential as multifunctional agents. Emerging evidence suggests that statins exhibit antifungal activity against a broad spectrum of mycoses, many of which are involved in skin conditions. With approximately 200 million patients globally receiving statins, exploring their potential as topical antifungal agents is of considerable interest. In light of this, the objective of this systematic review is to evaluate the antifungal effects of statins as topical agents.

Methods:

The study followed the PRISMA guidelines throughout its implementation. A comprehensive search strategy was implemented across multiple databases, including PubMed, Medline, and Google Scholar. Duplicate articles were systematically identified and removed, and two independent reviewers evaluated each article for eligibility based on predetermined inclusion criteria. All articles meeting the inclusion criteria were retained for further analysis. Data extraction was performed by two independent reviewers, with any discrepancies resolved through consultation with a third reviewer who was blinded to the study details.

Results:

Two RCTs and one retrospective cohort study were included. The RCTs served as the first clinical interventional studies assessing the efficacy of topical statins in preventing mycoses. The studies involved 76, 86, and 1019 patients, respectively, with the majority being males. Both RCTs exclusively evaluated the use of atorvastatin, while the cohort study examined various statins. Atorvastatin demonstrated efficacy in reducing the incidence of fungal infections when administered alongside fluconazole in AML patients. Additionally, it proved to be comparable to betamethasone in treating scalp SD, with fewer adverse effects, such as itching or irritation. In the cohort study, patients exposed to statins exhibited a significantly lower likelihood of testing positive for Candida spp. Unlike the cohort study, the RCTs suggested a dose-dependent fungicidal effect of statins, whereby a higher dose of statins was able to treat more severe cases of SD. The mechanism of action of statins on fungi appeared consistent across studies, involving a reduction in ergosterol synthesis along with anti-inflammatory effects on immune host cells.

Conclusion:

Overall, the findings from the included studies demonstrate promising outcomes with the use of topical statins as adjunct therapy alongside conventional antifungals, compared to their use as standalone agents. Importantly, the significant antifungal benefits observed with statin therapy in treating seborrheic dermatitis have sparked our interest in exploring their potential efficacy in addressing other skin conditions as well. The limited number of clinical studies highlights the necessity for additional research with larger sample sizes, longer follow-up durations, and higher statin doses to validate the results more effectively.

Table 1: Data Extracted from the articles

	Author, year	Country	Type of study		Treatment group (with dosage & formula)	Dosage & formula	Duration of treatment	Inclusion criteria	Exclusion criteria	Fungus	Mode of action	Adverse events
Sa	iaber-Moghadd m., 2023	lran	Multi-center, triple-blind, randomized clinical trial	Placobo	addition to fluconazole	Pluconazole 400 mg/day as PAP plus darvastatin 40 mg/day	Fluconazole - tunii recovery from neutropenia Atorvastatin or placebo - for 30 days	(1) AML patients treated with standard 7+3 ehemotherapy regimen (2) age range of 18-70, (3) no current pregnancy or lacetation, (4) no active or under treatment fun- gal infection based on initial clinical evaluation, (5) no cen-comitant cancers, (6) no prior use of statins, (7) no known hypersensitivity to statias, (8) no concurrent use of cyclosporite, damazole, cycloprotrone, or colchicine, (9) absence of active liver impoirment, (10) GFR > 40 ml/min.	Subjects with prolonged neutropenia (patients who presented with ANC < 500 for at least 7 days) at the time of admission	mold infections (IMI), including four cases of	Involvement in fungi's metabolic pathways; impairment of the sterol pool, membrane thiad, gene expression, and protein levels of enzymes from the sterol and non-sterol isoprenois biosynthetic branches, regress farmesol-dependent pathogonicity factors, yeast-to-hyphal transition, and biofilm generation in fungi.	No clinically significant increase in LFT or SCr levels was observed in patients during the follow-up period.
8	iobhan, 2019		Randomized, double-blind, control trial	Betamethason e	Atorvastatin	0.1% Betamethasone 5% Atorvastatin	4 weeks	I month before enrollment; (e) absence of any disorder that	(a) patients with severe SD (SSSD score greater than 10); (b) pregnancy or lactation or expecting to get pregnant during the treatment; (c) poor adherence to the treatment; (d) presence of any adverse effects resulting in patients' intolerance or complications; (e) unwilling or unable to follow the study protocol.	Malassezia	fungicidal: reduction in synthesis of terpencial derivatives (involved in the synthesis of ergosterol in fungi) + anti-inflammatory (reduction in IL- 6 & CRP)	Itching or irritation
s	ipanakis, 2010		Retrospective cohert study	No treatment	Atorvastatin Simvastatin Pravastatin Lovastatin Fluvastatin Rosuvastatin	Median dose of Atorvastatin =20mg	Day of admission until discharge.	(a) adult at the day of admission, (b) ind a diagnosis of type 2 DM (c) underwent lower gastrointestinal tract surgery (d) all patients who had a culture positive for Candida species, whether that represented an infection or colonization	All patients who had received any antifungal treatment before the culture was obtained		decreased levels of ergosterol in Candida spp + immunomodulatory effects on CRP.	N/A

Table 2: Risk of Bias Assessment

Study	Generation	Allocation concealment (selection bias)	participants and personnel	assessment	outcome data	Selective reporting (reporting bias)	Other bias
Saber-Moghaddam, 2023	Low	Low	Low	Low	High	Low	Low
Sobhan, 2019	Low	Low	Low	Low	High	Low	Low
Spanakis, 2010	High	High	Unclear	Unclear	Low	Low	Low

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Disseminated Histoplasmosis presenting as Panniculitis in Systemic Lupus Erythematosus

Introduction & Objectives:

Histoplasma capsulatum, a common mycosis in immunosupressed patients, can manifest with cutaneous involvment in 10-15% of disseminated cases. Panniculitis is an uncommon form of presentation, described almost solely in patients with rheumatologic conditions on immunosuppressive drugs.

Materials & Methods:

A 39-year-old female patient with systemic lupus erythematosus presented with a 4-month-history of painful skin lesions, accompanied by sporadic dry cough, non-bloody diarrhea, and weight loss. She received immunosuppressive therapy with hydroxychloroquine 400mg/d, prednisone 30mg/d, and mycophenolate 3g/d. During the last month, she experienced spontaneous drainage from a lesion in her right gluteus, intermittent low-grade fever, and malaise. Examination revealed ill-defined, erythemato-violaceous plaques and nodules on both legs and an irregularly shaped, ulcerated nodule on the right gluteal area. Differential diagnoses included lupus panniculitis, deep mycosis, and gummatous tuberculosis.

Laboratory tests revealed anemia, elevated lactate dehydrogenase, and abnormal liver enzymes, and chest CT showed a diffuse miliary pattern. Blood and skin fungal cultures were negative, as was histoplasma antibody in serum. Histopathologic examination demonstrated minimal diffuse infiltrate without granuloma formation, along with septal panniculitis. Periodic acid-Schiff staining revealed multiple small rounded intracellular organisms, displaying a perinuclear halo characteristic of Histoplasma capsulatum. Treatment with IV amphotericin deoxycholate was started at 1 mg/kg/day, but, two weeks after, she experienced gastrointestinal bleeding and a colonoscopy showed ulcers in the colon and rectum. The patient died shortly after.

Results:

Histoplasmosis can present as disseminated disease, particularly in conditions affecting cellular immunity, such as HIV/AIDS, corticosteroid use, or immunosuppressive therapy. Cutaneous manifestations, reported in 10-15% of disseminated cases, vary greatly in morphology and include papules, plaques, pustules, nodules, or molusco-like lesions. While a panniculitis-like presentation is rare, it should be considered in patients with rheumatologic conditions. To date, only 3 other cases of histoplasma panniculitis in patients with SLE have been reported.

Histopathological examination can help with diagnosis typically revealing a paucinflamatory infiltrate. The presence of small, intracellular yeast forms with a characteristic halo is diagnostic, and tissue stains with PAS or GMS may enhance visualization. Blood cultures have limited sensitivity, and additional studies, such as urinary or serum antigen testing, should be included in the work-up when suspicion is high. Recognition of uncommon presentations of histoplasmosis in immunosuppressed patients may be challenging due to similarities with disease flare-ups, other infectious etiologies, or treatment side effects. Early initiation of therapy with amphotericin is crucial to improve outcome.

Conclusion:

Given the widespread use of potent immunosuppressive drugs for the treatment of rheumatologic conditions, clinicians should be aware of disseminated histoplasmosis presenting as panniculitis, especially in systemic lupus erythematosus.

Disseminated herpes zoster: how do we treat it? 5-year experience in a tertiary hospital

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Introduction & Objectives:

Disseminated herpes zoster is a potentially life-threatening condition resulting from the reactivation of the varicella-zoster virus (VZV) in a susceptible host (immunosuppression, immunosenescence, etc.). Typically, these patients require hospital management for intravenous antiviral treatment. However, there are no general recommendations regarding the duration or optimal treatment scheme.

Materials & Methods:

To analyse the management of disseminated herpes zoster in our center, we proposed a retrospective, single-center observational study of patients with disseminated herpes zoster as the primary diagnosis following hospital admission between 2018 and 2022 (n=82). Electronic medical records were reviewed, and population data (age, sex), length of hospital stay, admitting service, dermatome of onset, received antiviral treatment, duration of intravenous antiviral treatment, total duration of antiviral treatment, bacterial superinfection (and need for antibiotic treatment), as well as identifiable risk factors for dissemination were extracted.

Results:

Among patients with disseminated herpes zoster, 58.5% were female, with a mean age of 68.9 years. The average length of hospital stay was 8.9 days. The service with the highest number of admissions was Dermatology (54.9%), followed by Internal Medicine (9.8%) and Geriatrics (8.5%). If identifiable, the most frequent onset dermatomes were located in the head and neck (53.7%) and trunk (25.6%). Regarding antiviral treatment, the mean total duration of treatment was 10.3 days, while the mean duration of intravenous treatment was 6.6 days. 43.9% of patients had bacterial superinfection requiring systemic antibiotic therapy, with beta-lactams being the most commonly used antibiotics (83.8%). A risk factor for disseminated herpes zoster was identified in 45.1% of cases, with patients with hematologic neoplasms (21.6%) and solid organ transplant recipients (21.6%) being the most represented.

Currently, there are no clear definitions regarding the optimal treatment of disseminated herpes zoster. Generally, systemic treatment is recommended for 7-14 days or until the cessation of vesicle appearance. Additionally, there are no studies comparing the efficacy of intravenous therapy versus oral therapy, and the optimal timing for switching between the two therapies is not defined. In our sample, we observed this heterogeneity both in treatment duration and in the switch of administration route. Likewise, we found a large percentage of patients without an apparent risk factor for dissemination, which could constitute a population in which treatment times could be optimized.

Conclusion:

Establishing well-defined management criteria for disseminated herpes zoster could allow for treatment

optimization, with a reduction in intravenous treatment duration and increased outpatient management.

Verrucous lupus erythematosus mimicking paracoccidioidomycosis

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Introduction: Verrucous lupus erythematosus is an uncommon variant of this autoimmune inflammatory disease, which presents pruritic verrucous papules with hyperkeratosis in photoexposed areas. Case report: Male patient, 29 years old, farmer, was referred to the Dermatology outpatient clinic complaining of "warts" on his face. The lesions had evolved over almost 2 years, initially in the form of small warts located on the back of the nose that grew in size, affecting other areas of the face. On physical dermatological examination, he presented hyperkeratotic and scaly lesions, blackish in color, on an erythematous base, located on the dorsum of the nose, malar, zygomatic, frontal and retroauricular regions. A biopsy was performed, which showed epidermal atrophy, dilated follicular ostia with keratolytic plugs, vacuolar degeneration in the basilar layer associated with thickening of the basement membrane, superficial and deep perivascular and perianexal lymphocytic infiltrate with plasma cells and increased dermal mucin, closing the diagnostic hypothesis of Chronic Cutaneous Lupus Erythematosus, Verrucous or Hypertrophic variant. Conclusion: Paracoccidioidomycosis, a systemic mycosis commonly found in Latin America, has a cutaneous manifestation that predominates in the upper half of the body and can present as a warty variable, thus, it can be very similar to the condition seen in the patient mentioned above. The diagnostic doubt can be resolved with the histopathological examination, which was carried out and correctly revealed the difference between the lesions.

Behind the Skin: A Case Report on Cutaneous Tuberculosis

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Introduction:

Cutaneous tuberculosis (TB) is an uncommon manifestation of TB. According to 2019 data from the World Health Organization (WHO), around 15% of tuberculosis cases in 2018 were extrapulmonary, totaling around 7 million people. Of this total, less than 2% had cutaneous involvement. The host's immunological status, previous contact with Mycobacterium tuberculosis, and the route of contamination are decisive for the etiology, classification, and treatment of cutaneous tuberculosis. The present report highlights the classic semiotic presentation of scrofuloderma and its typical evolution with the effectiveness of the treatment.

Case Report:

A 57-year-old male, immunocompetent, HIV-negative, with a history of unspecified mental illness under regular treatment, presented with left axillary and supraclavicular nodules that had been growing progressively over a period of 7 months, associated with weight loss of 10 kg. Despite multiple cycles of extended antibiotic therapy, the condition persisted. Biopsy of the nodules revealed abscessed lymph nodes. Subsequent diagnostic procedures led to the development of ulcerations and drainage fistulas in both the axillary and supraclavicular regions - one measuring about 12 cm and the other 5 cm. Due to the unusual progression of the lymph node cluster, drainage material was collected and tested positive for Acid-Fast Bacilli (AFB) and Xpert MTB Assay, compatible with the miliary pulmonary radiographic pattern that the patient presented, even without respiratory symptoms. Treatment for scrofuloderma was initiated, with supervised follow-up for 6 months resulting in complete resolution, healing, and cure.

Discussion:

Scrofuloderma indeed emerges as the predominant clinical manifestation of Cutaneous Tuberculosis in developing countries, such as Brazil. The progression of nodules into cold, fistulizing abscesses, along with their distribution along lymph node chains, mirrors the described pattern. Notably, the immune response tends to be multibacillary, as indicated by the associated radiological pattern, even in the absence of common immunosuppressive factors like alcoholism, malnutrition, or HIV infection, which is completely different from the usual. While the diagnosis hinges on bacillus detection, clinical suspicion remains paramount, considering the lesion patterns, locations, and epidemiological history. Treatment primarily revolves around a clinical approach, leveraging rifampicin as a cornerstone.

Conclusion:

Although more than 10 million people continue to fall ill with TB every year, it's a preventable and usually curable disease. The cutaneous form, despite being rare, should be considered as a differential diagnosis in cases of ulcers with lymph node involvement and fistulization, even more so when accompanied by weight loss and lack of response to conventional antibiotics. In this way, as in the case portrayed, clinical cure can be achieved.

Perineal vitiligo following pinworm infection: About 2 cases

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Introduction:

Oxyuriasis is one of the most common parasitic diseases in children. Itching and erythema in the perianal area are the primary cutaneous findings often associated with pinworm infestation. We present two unusual cases of children developing perianal and vulvar vitiligo following pinworm infection.

Observation:

A 2-year-old infant presented to our department with a perianal lesion that had been progressively evolving over the past three weeks. His medical history did not reveal any familial autoimmune disease. Clinical examination revealed a distinctive perianal achromic patch, with similar lesions observed in the vulvar region. Notably, the lesions exhibited a bright blue-white coloration under Wood's light, confirming the diagnosis of vitiligo. According to the mother, the initial symptom was perianal pruritus, which led to a confirmed diagnosis of oxyuriasis upon a positive Scotch tape test.

A 6-year-old female presented with depigmented lesions that had been evolving over a two-month period. There was a history of confirmed oxyuriasis diagnosed two weeks before the onset of skin lesions. Physical examination revealed achromatic patches with a distribution mirroring that observed in the first case. Notably, the depigmentation extended to the gluteal region. Wood's light examination confirmed the presence of fluorescence consistent with vitiligo.

Discussion:

Vitiligo is a dermatological condition characterized by an acquired depigmentation of the skin, primarily arising from the melanocyte destruction. Isolated involvement of the perennial and perianal area in children vitiligo is uncommon. The unique distribution of vitiligo lesions in these regions, in association with pinworm infestation in both cases is worth noting. While this may suggest a possible link, a cause-and-effect relationship remains speculative. A literature review did not reveal any other cases of vitiligo and oxyuriasis association. The underlying mechanisms remain theoretical. One plausible hypothesis is that the chronic inflammatory response elicited by Enterobius vermicularis might have contributed to the development of an autoimmune reaction, ultimately targeting melanocytes in the skin. Furthermore, the association of intestinal helminths with pityriasis alba, another common depigmentation disorder was recently described. While pityriasis alba is distinct from vitiligo, exploring their commonalities may yield insights into the pathogenesis of perianal and vulvar vitiligo following oxyuriasis. Also, the intense itching associated with pinworm infection may lead to a Koebner phenomenon, a well-documented triggering factor in vitiligo, in which lesions develop at sites of trauma or irritation. Constant scratching of the perianal area could have potentially triggered vitiligo onset in susceptible individuals.

Conclusion:

Clinicians should be aware of the potential association between oxyuriasis and vitiligo, especially when evaluating

perianal and vulvar lesions. These cases highlight the need for further research to unravel the intricate mechanisms linking these two conditions.

Tinea capitis caused by Microsporum gypseum: An uncommon pathogen

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Introduction:

Tinea capitis is a common infection of the scalp usually affecting school-aged children. Microsporum gypseum, a geophilic fungus, is considered to be involved in keratin degradation in the soil and is known to be an infrequent cause of ringworm in humans. We report a case of tinea capitis in a child caused by an uncommon pathogen, M. gypseum.

Observation:

A 6-year-old male child, with no pathological history, was referred to our dermatology consultation for evaluation of multiple patches of hair loss on the scalp that had been developing for 2 months. She had direct soil, plant and pet contact. Dermatological examination revealed erythematous scaly rounded lesions in the occipital region of the scalp, medium-sized, few in number with short broken hairs. Wood light fluorescence was absent. The mycological study of the sample revealed the presence of mycelial filaments with ecto-endothrix-type hair parasitism. A fungal culture of broken hairs and scale showed rapid growth in 4 days. Macroscopic examination revealed powdery beige colonies. Microscopic findings showed the presence of rare mycelial filaments. Macro conidia were abundant, fusiform in cocoons, echinulate and thinly septate, divided into four to six cells, characterizing M. gypseum. The patient was treated for 6 weeks with Terbinafine per os. Complete resolution of the clinical lesions was achived.

Discussion:

Tinea capitis is the most common mycosis worldwide and may represent a public health problem. Most studies in the Maghreb and many countries around the Mediterranean show that microsporic ringworm is on the increase specifically attributed to Microsporum canis. M. gypseum, a geophilic dermatophytie that produce keratinases conferring keratolysis as an important virulence factor, is exceptionally involved. Human infection can be acquired from the soil, animals such as cats, dogs and rodents that can carry this organism but are rarely infected, and infrequently other humans. Lesions caused by M. gypseum are generally characterized by erythematous scaly plates with pustules inside or on the edges, which could lead to mistreatment with topical steroids and antibiotics. The diagnosis is made with direct mycological examination and culture for fungi. M gypseum colonies grow rapidly producing powdery colonies. Microscopic findings are also characteristic. The recommended treatment of tinea capitis is oral griseofulvin therapy for 6 to 8 weeks. Terbinafine, itraconazole or fluconazole may be used in this case.

Conclusion:

This case merits attention because of the rarity of the isolation of M.gypseum, an unusual cause of tinea capitis. We have to include this differential diagnosis in the evaluation of inflammatory scalp lesions in infants, especially if there is a history of exposure to sand or soil. Moreover, we would emphasize the significance of mycological culture which would help to make the diagnosis.

An atypical presentation of herpetic infection: Case report

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Introduction & Objectives:

Herpetic infection is characterized by the eruption of vesicles on an erythematous skin. A deficient immune response can result in an usual presentation that can mislead the diagnosis. Herein, we report a case.

Materials & Methods:

A 12-year-old female patient with a history of Fanconi anemia presented with an erythemato-violaceous perinasal nodule. The lesion measured 2 cm in diameter and was well demarcated with an ulcerated center. The patient had also a painful erosive gingivostomatitis that had appeared 5 days previously, at the same time as the perinasal nodule. Microbiological sampling was perfomed in both lesions and *polymerase chain reaction* (*PCR*) test for *herpes simplex virus* (*HSV-1*) was positive Intravenous aciclovir (8 mg/kg/8h) was prescribed. The evolution was favorable with disappearance of the lesions after one week.

Results:

Herpes vegetans, also known as hypertrophic herpes, is an atypical variant of cutaneous herpetic infection which is usually located in anogenital area. It was reported in immunodeficient patients, most often in the context of acquired immunodeficiency syndrome. Differential diagnoses include atypical mycobacterial infections, invasive mycoses and lymphomas. Histological examination shows an ulcerated lesion with focal hyperplastic epidermal changes or even an intra-epidermal collection of acantholytic cells with nuclear chromatin margination. A strong clinical suspicion of herpetic infection will guide para-clinical investigation towards the search for viral DNA, and subsequently allow antiviral treatment to be initiated. Herpes vegetans has an inconstant favorable response to aciclovir and cases of viral resistance were reported. In these situations, foscarnet can be used.

Conclusion:

We present a case of an atypical herpetic lesion in an immunodeficient patient. Knowledge of this entity would help avoid delays in therapeutic intervention.

Orf nodule complications: A case series

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Introduction & Objectives:

Orf nodule is a Parapoxvirus infection transmitted to humans through contact with ruminants suffering from ecthyma contagiosum. The aim of this work is to study the possible complications of Orf nodule, particularly in immunocompromised patients.

Materials & Methods:

A retrospective study of Orf nodule cases diagnosed during an 8-year period (2016-2023).

Results:

A total of 32 patients were included in this study, with an average age of 51 years and a M/F sex ratio of 1. Eighteen patients had complications (56.25 %). Three complications were present in our series are represented mainly by bacterial superinfection (12 cases) and erythema multiforme (EM) (5 cases). The mean time to onset of EM was 10 days, with clinical improvement on topical steroids.

A 74-year-old liver transplant patient, who was on immunosuppressive therapy, presented with pseudo-tumoural ulcerated bleeding lesions on the right leg following abrasions by sheep's horn. These lesions rapidly recurred after initial surgical excision. We prescribed valaciclovir at a dose of 1 gram three times a day for two weeks. The lesion healed completely after 3 months with no subsequent recurrence.

Orf nodule is a rare viral cosmopolitan zoonosis whose most frequent complication is bacterial superinfection. EM is a rare complication (5-20%) that can be explained by a cell-mediated hypersensitivity reaction, and usually develops 10-14 days after the onset of Orf nodule. EM lesions are most often found on the hands and forearms, but can also occur in areas remote from the orf nodule, with a possible mucosal involvement. The course is generally self-limiting, however topical and oral corticosteroids may be required.

Other complications include regional lymphadenopathy, lymphangitis, erythema nodosum, erysipelas and bullous pemphigoid.

In immunocompromised patients, the risk of complications is higher. Involvement can be extensive, necrotic and recurrent with tumor-like lesions. Treatment options may include surgical excision, with a high recurrence rate, cidofovir cream, imiquimod, valaciclovir and interferon alpha.

Conclusion:

The main complication of Orf nodules is bacterial superinfection. The etiological work-up for erythema multiforme should include parapoxvirus, particularly in endemic regions. In immunocompromised subjects, a pseudotumoral form may be observed.



Estimating the incidence of leprosy across Indonesia to better target interventions for early case detection and treatment: a geospatial distribution analysis

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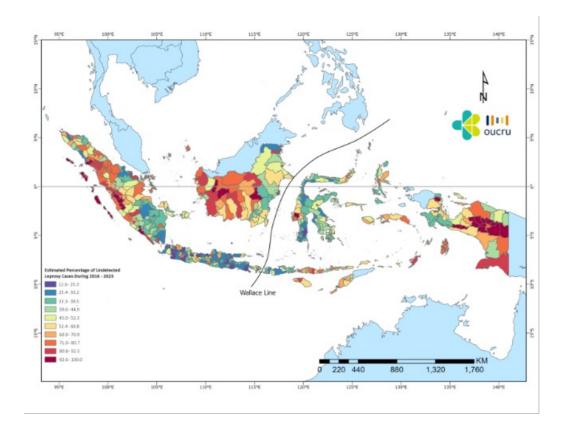
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Introduction & Objectives Leprosy was officially declared eliminated in Indonesia in 2000. Nevertheless, with an incidence of 6.5 per 100,000 persons, Indonesia continues to have the third highest number of cases in the world. Anecdotal data suggest there may be pockets of substantial unrecognized cases spread across the nation. To better target interventions for early case finding and treatment, we analysed the spatial-temporal epidemiological characteristics of new leprosy cases in Indonesia to identify high risk areas and quantify the gap between currently reported and projected incidence.

Materials & Methods We conducted a nationwide retrospective analysis of de-identified district-level data reported to the national leprosy control programme between 2016-2023 including all 514 districts.** Generalized Linear Mixed Models were applied to estimate the annual projected incidence for each district. The models incorporated population data, Human Development Index, domestic expenditure per capita, population density, proportion of people below the poverty line, access to water supply and health-system capacity (i.e. density of primary healthcare clinics and hospitals) at district level. Missing annual data points were imputed. The district-level projected incidence was calculated by multiplying the reported incidence by the inverse of the ratio of reported to projected incidence. We created geographical maps to identify the high-risk districts.

Results Our models estimated a total of 196,320 new leprosy cases between 2016-2023 nationwide, whereas only 104,499 were reported and 91,821 cases (47.8%) remained undetected, suggesting a 87% higher projected than reported incidence (Figure 1). We identified 38 districts (7% of total; top-3 islands: Sumatra [20 districts], Papua [11], Kalimantan [5]) that had a low reported incidence (<2 new cases per 100,000 population), but high projected incidence (>20 new cases per 100,000 population). We identified 249 districts (48% of total; top-3 islands: Sumatra [100 districts], Kalimantan [35], Papua [30]) where >50% of cases remained undetected, and 5 districts (1% of total; Papua [4] and West Java [1]) with >1000 cases undetected.

Conclusion Our models estimated that between 2016-2023 nearly half (91,821) of the new leprosy cases remained undetected nationwide. We identified a large number of high-risk districts that should be targeted for interventions to improve early case detection and treatment. To achieve the WHO's 'Towards Zero Leprosy' goals, enhanced efforts are needed to interrupt transmission, prevent disabilities, and ultimately reduce the burden of leprosy in Indonesia.



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Burrowing Bug Pigmentation: Unraveling the Mysteries of Cutaneous Pigmentation

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Introduction & Objectives:

Pigmentation of skin because of cynidae bugs is a rare entity which is largely underreported or missed either due to its transient nature or self-awareness of its innocuousness. Cynidae belongs to the superfamily pentatomoideae with a common name of "burrowing bugs" because it resides underground and feeds on roots of plants.

Materials & Methods:

A 15-year-old female presented to the skin out patient department with a history of sudden onset of asymptomatic dark patchy pigmentation over palms and soles for a duration of 1 month which could not be washed off with soap and water. As per the patient, the lesions were associated with occasional pain and resolved with desquamation. She had no history of associated fever, cough, joint pain, preceding trauma, drug intake or any contact with exogenous chemicals. She admits to having visited a zoo before the lesions appeared. On probing, she revealed the presence of similar lesions among five family members who visited the zoo as well. Cutaneous examination in index case revealed multiple, scattered, non-blanchable, irregularly shaped dark black macules (approximately 2–4mm in diameter) with streaky ends resembling lentigines present over bilateral palms and soles. Similar findings in family members were noted too.

Dermoscopy revealed presence of homogeneous brown-black pigmentation, frayed parallel furrows, cluster of numerous bizarre-shaped shiny jet black globules, clods, and granules with a superficial stuck on appearance.

Differentials of resolving petechieae, tinea nigra, junctional melanocytic naevi and acral lentigines were considered.

Histopathology showed brownish black pigment deposition in stratum corneum and mild perivascular lymphocytic infiltrate in papillary dermis.

Results:

Clinical and dermoscopic observations in cases of exogenous pigmentation have the potential to mimic melanocytic lesions. Dermatologists should be aware of this newly recognised and relatively uncommon entity for exogenous pigmentation to avoid unnecessary interventions. Appropriate counselling regarding the self-resolving nature of this condition will alleviate fear and anxiety of the patient.

A Case Report on Erythroderma and Leprosy.

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Introduction & Objectives:

Leprosy is a chronic and curable infectious disease. The clinical presentation of leprosy varies greatly, and the decreased incidence of reported leprosy cases makes timely diagnosis challenging. The various atypical presentations include; eczematous, psoriasiform, granuloma annulare-like and erythema multiforme-like leprosy. However, it is not currently considered a differential diagnosis for erythroderma.

Materials & Methods:

We report a case of a 45-year-old male who presented with a 5year history of skin desquamation which was associated with redness, itching and a gradual loss of sensation in the hands and feet. The condition had been slowly progressive and recurrent without triggering factors. He had no prior history of any skin conditions. He had been treated for the current condition multiple times at various health facilities with topical and systemic steroids, antibiotics and antifungals with no improvement.

Upon examination, he had generalized scaling sparing the face, "glove and stocking" paresthesia and palpable ulna nerve of the right arm. We had a working diagnosis of erythroderma.

Results:

Punch biopsies from 3 different sites revealed normal epidermis and granulomatous inflammation surrounding the blood vessels, nerves and adnexal structures. There were Acid-fast bacilli in the granulomas but no thrombosis, necrosis or ulceration. The findings were suggestive of lepromatous leprosy.

He is on a 24months regimen of multi-drug treatment for multibacillary disease with Rifampicin, Clofazimine, and Dapsone. 2weeks after the initiation of therapy, there was no erythroderma, and the paraesthesia had reduced.

Conclusion:

This patient had an atypical presentation of leprosy. Proper history-taking, thorough physical examinations and a high index of suspicion guided physicians to the diagnosis. Despite the declining incidence rates, leprosy should still be considered a differential diagnosis, especially in patients from tropical and subtropical regions.

Use of Infliximab for the treatment of recalcitrant Erythema Nodosum Leprosum: report of a challenging case

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Introduction & Objectives:

Leprosy reactions affect up to 50% of patients with leprosy, significantly increasing the risk of disability. Erythema Nodosum Leprosum (ENL) or type II reaction mainly affects lepromatous and dimorph-virchowian patients, characterized by the appearance of painful erythematous subcutaneous nodules in association with constitutional symptoms. The objective of the following report is to demonstrate the potential use of Infliximab in the treatment of severe erythema nodosum leprosum that is refractory to first and second line medications.

Materials & Methods:

A 30-year-old Brazilian woman diagnosed with Dimorph-Virchowian leprosy in 2020 experienced persistent ENL lesions despite multidrug therapy. Assessment of the sensitivity profile of *M. leprae* did not demonstrate resistance to rifampicin, dapsone or ofloxacin. Retreatment of leprosy with alternative regimens was carried out twice, as several medications were used, without success, in an attempt to suppress the leprosy reaction: systemic corticosteroid therapy, pulse therapy with methylprednisolone, thalidomide, pentoxifylline, methotrexate, colchicine, azathioprine and even adalimumab. In 2022, she suffered a pulmonary thromboembolism due to the leprosy reaction. In 2023, the patient was hospitalized again due to significant worsening: fever, arthritis, neuritis and new painful erythematous subcutaneous nodules on the trunk, limbs and face. Therefore, it was decided to introduce cyclosporine (5mg/kg/day) and Infliximab at a dose of 5mg/kg in weeks 0, 2 and 6.

Results:

Twenty four hours after the first dose of Infliximab, the patient's condition improved significantly, with resolution of new nodules, pain relief, and reduced C-reactive protein levels. Within seven days, dermatological condition improved, neuritis and arthritis resolved. After three infusions, the patient remained free of new lesions and corticosteroid therapy is being discontinued progressively.

Conclusion:

Erythema Nodosum Leprosum is an immune-mediated complication of leprosy in which there is a systemic inflammatory state due to the release of tumor necrosis factor (TNF)-alpha, interferon (IFN)-gamma and several interleukins. The drug of choice for its treatment is thalidomide, which inhibits the production of TNF-alpha. In cases where there is a contraindication or refractoriness to its use, systemic corticosteroid therapy can be used. However, since it is not possible to use glucocorticoids due to the risk of long-term adverse events, the treatment of recalcitrant cases of ENL becomes challenging. Within the available therapeutic arsenal, pentoxifylline, methotrexate, dapsone, clofazimine, minocycline and cyclosporine can be used. These medications can be used alone or in combination therapy. Immunobiologicals like Infliximab are effective for severe cases unresponsive to conventional treatments, although they increase the risk of infections, necessitating careful monitoring.

Complete resolution of a severe Trichophyton benhamiae tinea corporis with terbinafine

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Introduction & Objectives:

Trichophyton benhamiae is an emerging fungal pathogen with very reported cases. We describe here the first case in French Guiana.

Case report:

A 50-year-old woman of Haitian origin consulted for skin lesions evolving for 3 weeks. An HIV infection had been discovered in 2002 but she had been lost to follow-up for 2 years and had stopped her antiretrovirals (ART). Her CD4 count was 35/mm3. She lived in an informal settlement in the countryside, and had several pets at home (rodents, dogs). At the time of admission, she presented with multiple pruritic, hypopigmented lesions with concentric circles and with a scaly border. The involved areas were the face, trunk and the four limbs., involving half her total body area. She also had pruritic erythemato-papular lesions on the trunk and very scaly lesions on the scalp. Mycological examination of scales from an annular lesion and a skin biopsy from a papular lesion on the trunk showed fungal septae in direct examination. Mass spectrometry after mycological culture identified *Trichophyton benhamiae*. The patient then received oral itraconazole 100 mg/day but soon presented an iatrogenic neutropenia. She was then treated with oral terbinafine 250 mg/day, for a total duration of 6 weeks. At the end of this treatment, all her skin lesions were cured.

Discussion and conclusion:

Trichophyton benhamiae is a rare filamentous fungus, usually transmitted by guinea pigs. As suggested by this case, it is likely that other rodents would be able to harbour this fungus. There are very few clinical pictures available in the literature. A few cases have already been reported in the Middle East, Asia and Europe. In South America, a dozen cases have been reported in Argentina, but this is the first report in French Guiana. This case shows how this fungal pathogen can be responsible for extensive clinical presentations, particularly in people living with HIV. Of note, our patient presented both annular lesions which were expected from a dermatophyte, but also atypical papular lesions which were also positive in biopsy. This fungus is usually treated with terbinafine, as show in this case.

a clinico-histological study of unusual presentations of cutaneous infections

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Introduction & Objectives: Cutaneous infective disorders are a diverse group with histological features. Tropical infections include cutaneous tuberculosis, leprosy, deep fungal infections, leishmaniasis and other uncommon conditions. Histopathology is a valuable tool to diagnose these cases, especially in resource poor settings. Ancillary microbiological, haematological, serological and radiological investigations aid in confirming the diagnosis. This study aims to present clinico-pathological features of some unusual presentations of cutaneous infections.

Materials & Methods: The records of all histopathologically proven cases having atypical clinical presentations of cutaneous tuberculosis, leprosy, deep mycoses, leishmaniasis or any other infective condition were analyzed. Demographic and disease characteristics like age, gender, disease duration, clinical presentation, site of involvement and any associated conditions were studied. Histopathologic slides were reviewed for epidermal reaction, type and pattern of granulomas, other inflammatory cells, presence of organisms, necrosis and other findings. Special stains such Ziehl-Neelsen, Fite-Faraco, Periodic-acid Schiff and Giemsa were performed to identify the organisms. Ancillary laboratory studies like slit skin smear, fungal culture, mantoux test, serology for syphilis were done where relevant to reach a definite diagnosis.

Results: A total of 15 cases of unusual clinical presentations of histologically proven cutaneous infections were studied. These included five cases of cutaneous tuberculosis, three cases each of parasitic and deep fungal infections and two cases each of secondary syphilis and leprosy. Among cutaneous tuberculosis, clinical variants included lupus vulgaris, chronic cutaneous miliary tuberculosis, lichen scrofulosorum (LS) and co-existence of erythema induratum (EI) and papulonecrotic tuberculid (PNT), with typical histological features of tuberculoid granulomas, which were perifollicular in LS and accompanied by panniculitis in EI and vasculitis in PNT. Parasitic infections comprised of cutaneous dirofilariasis, hydatid cyst and post kala-azar dermal leishmaniasis, which were diagnosed on detection of organisms. Chromoblastomycosis, mucosal histoplasmosis and cutaneous mucormycosis were identified as deep fungal infections based on suppurative granulomas and identification of organisms. Atypical presentations of secondary syphilis seen were annular and granulomatous lesions, with plasma cell rich infiltrate, endothelial cell swelling and positive serology.

Conclusion: Cutaneous infections are a heterogenous group with myriad clinical presentations. A high index of suspicion is warranted to diagnose them early and accurately. Histopathologic examination with special stains supplemented by supportive investigations are crucial in reaching a correct diagnosis as advanced diagnostic tests may not easily available in resource poor countries.

Neurological damage due to rickettsiosis

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Introduction & Objectives:

Rickettsiosis is a re-emerging infection, potentially fatal that are widespread throughout the worldwide. It is a disease caused by an intracellular bacteria, associated with arthropods, mainly ticks. Neurological damage constitutes one of the most serious forms with a guarded prognosis. Our objective is to discibe the various neurological disorders associated with rickettiosis.

Materials & Methods:

This is a prospective study carried out in the dermatology department of Hospital university HASSAN II Fez Morocco, from January 2020 to April 2024. The patients included had neurological damage and serologically confirmed rickettsiosis.

Results:

A total of 43 patients hospitalised for rickettsial disease, 24 had neurological signs. The average age was 55 years. No neuropsychiatric history was reported in any of our patients. The average consultation time was 10 days. Fever (100%) and headache (100%) were the main functional signs, with vertigo reported by 16% of patients. On examination, the meningeal syndrome predominated (5 cases), followed by confusion (4 cases), disturbed consciousness (3 cases), agitation (2 cases) and hallucination in one patient. A characteristic maculopapular exanthema with an escarotic spot was present in all our patients. Lumbar puncture with cerebral CT or MRI revealed cerebral vasculitis in 5 patients and meningoencephalitis in 3 patientsa. Rickettsia conorii was the predominant serotype. All these patients had received antibiotic therapy: doxycycline and ciprofloxacin for an average of 10 days. The outcome was favourable in all cases with no sequelae, except in one case, which was fatal.

Conclusion:

The neurological complications of rickettsial disease are becoming increasingly frequent. Knowledge of the cutaneous and extra-cutaneous clinical picture lead to an early clinical diagnosis and an appropriate treatment to avoid a fatal outcome.

Emerging spotted fever Rickettsioses in Morocco

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Introduction & Objectives:

Rickettsias are zoonoses transmitted to humans by arthropods. Their clinical manifestations are varied. Prompt and effective treatment is recommended before biological confirmation. The aim of this study was to establish the epidemiological and clinical profile of this group as well as its different extracutaneous manifestations.

Materials & Methods:

Retro-prospective study including patients with rickettsiosis who were consulted the emergency of the hospital university center of fez, between June 2016 and April 2024.

Results:

43 patients were collected, with a male predominance of 66%, aged respectively from 2 to 74 years. The maculopapular rash was present in all our cases. Symptomologies ranged from neurological to digestive to renal. All of our patients underwent a rickettsia check-up and serology. 35 patients presented a febrile cutaneous eruption 48 hours after the tick, leading to hospitalization and treatmented by antibiotic: doxycycline +/-ciprofloxacin (for cases with neurological involvment. Evolution was characterized by disinfiltration and positive improvement; except for one case which died.

Conclusion:

Because rickettsial diseases have a wide geographical distribution, recognition of symptoms is essential to initiate rapid treatment to avoid a fatal outcome.

Pyoderma gangrenosum and intestinal Tuberculosis: A rare association

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Introduction & Objectives: Pyoderma gangrenosum (PG) is known to be associated with inflammatory bowel disease, rheumatoid arthritis, infections, hematological malignancies, and myeloproliferative disorders. One rare association of pyoderma gangrenosum is with tuberculosis (TB). Only 10 cases of pyoderma gangrenosum have been reported to be associated with TB.

Materials & Methods: A 36-year-old female presented with a non-healing ulcer on left gluteal region since 6 months. It appeared as a small pustule, which broke down to form a small ulcer and rapidly progressed to attain the size of 15x20 cm, accompanied by severe, continuous, dull aching pain.

She gave a past history of dull aching abdominal pain in the right iliac fossa since 7 months, altered bowel habits, persistent low grade fever, and a significant unexplained weight loss. She underwent contrast-enhanced computed tomography (CECT) of the abdomen followed by colonoscopic biopsy, both of which revealed findings strongly suggestive of intestinal tuberculosis. Antitubercular drug therapy (ATT) comprising of rifampicin, isoniazid, ethambutol, and pyrazinamide, was initiated post the onset of the gluteal ulcer. After consuming ATT for 6 months, she reported a remarkable improvement in her gastrointestinal symptoms, but the ulcer progressively increased in size.

On examination, a solitary circular ulcer measuring 15x 20 cms, was noted over the lateral part of left gluteal region and upper part of left thigh with inflamed, edematous edges, floor covered with red granulation tissue and had violaceous margins. On palpation there was marked tenderness. There was no induration or lymphadenopathy and wasn't fixed to the underlying tissue. There were 3 to 4 small satellite crusted erosions.

Complete hemogram revealed **microcytic hypochromic anemia with absolute neutrophilia** Tzanck smear from the ulcer was negative for multinucleate giant cells, and KOH mount was negative for fungal filaments, thus viral infections and deep fungal infections were ruled out respectively. Chest X ray was normal. Urine routine, renal function tests and liver function tests were normal.

Skin biopsy findings were significant, showing a dense sheet-like infiltrate in the dermis with perivascular neutrophilic infiltrate. The biopsy also indicated a notable absence of dysplasia, mitotic figures, or pleomorphism. Special stains, including PAS stain for fungal filaments and Zeihl Nesson stain for acid-fast bacilli, were negative. This clinched the diagnosis of pyoderma gangrenosum.

Considering the substantial size of the ulcer, the significant pain experienced by the patient, and the impact on her quality of life, she was initiated on cyclosporine therapy, and has reported a remarkable improvement in symptoms and improved quality of life.

Results: TB is a rare association with pyoderma gangrenosum which must be borne in mind in people living in endemic areas or those travelling to the same. The unique challenge in this patient was to give immunosuppressants in the presence of an infectious etiology.

Conclusion: The case illustrates the successful management of a rare association of pyoderma gangrenosum and intestinal tuberculosis with combination of ATT and cyclosporine.

Reactive infectious mucocutaneous eruption secondary to Chlamydia pneumoniae infection.

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Introduction: Reactive infectious mucocutaneous eruption (RIME) was proposed as new terminology to encompass postinfectious mucocutaneous eruptions. The term includes all postinfectious mucocutaneous eruptions such as the widely reported Mycoplasma pneumoniae-induced rash and mucositis (MIRM). We present a case of RIME secondary to *Chlamydia pneumoniae*, a rare entity that requires a high index of suspicion.

Case report:

We report the case of an 8-year-old boy who presented to the emergency department with 24-hour conjunctival hyperemia associated with fever spikes and oral and labial mucosal lesions that had persisted for 4 days. Additionally, the mother reported that the child had previously suffered from a cold, which was treated with carbocisteine and paracetamol. On examination, the child had friable lips with erosions and blackish crusts on the oral mucosa, without any rash or other skin lesions. Consultations were made with both ophthalmology and dermatology, and the possible diagnoses considered included Stevens-Johnson syndrome (SJS) or mycoplasma-induced mucositis. Serologies and PCR of mucosal swabs were performed, and due to the patient's poor general state, hospital admission was proposed to begin treatment with intravenous acyclovir and prednisone, care for the oral mucosa with mupirocin, and dexamethasone eye drops for the conjunctivitis. During the hospital stay, the patient developed a stinging sensation while urinating, which was attributed to a periurethral erosion on the glans mucosa. All microbiological tests were negative (including for mycoplasma and herpes virus), leading to the discontinuation of acyclovir and the initiation of azithromycin for 5 days. After a two-week hospital stay and significant clinical improvement, the patient was discharged and scheduled for follow-up with new serologies in three weeks. At the three-week follow-up, the patient had no lesions, and serology was positive for *Chlamydia pneumoniae*.

Discussion:

Mucocutaneous eruption secondary to Chlamydia pneumoniae is uncommon and clinically indistinguishable from other RIMEs; therefore, serological tests are necessary for differentiation. It commonly presents with severe oral mucositis, bilateral conjunctivitis, and prodromic symptoms. Skin involvement is usually minimal, which helps differentiate it from SJS, where extensive skin necrosis is found; however, mucosal involvement is not common. Generally, the course of the disease is mild with an excellent prognosis. Treatment primarily consists of targeted antimicrobial therapy (macrolides, tetracyclines, or fluoroquinolones) and supportive measures.

Combination of griseofulvin and terbinafine in current epidemic of altered dermatophytosis : A randomized pragmatic trial

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Introduction & Objectives:

In recent times, India has witnessed unparalleled shifts in the dermatophytosis incidence, clinical characteristics, and responsiveness to treatment. The response to treatment for tinea has significantly declined. In a randomized pragmatic open trial, we evaluated the efficacy of oral terbinafine with griseofulvin versus terbinafine alone in treating tinea corporis, tinea cruris, and tinea faciei. In this study, we investigated the hypothesis that a regimen comprising multiple oral antifungal medications might result in improved treatment outcomes. In an investigator-initiated, two-arm randomized pragmatic open trial, we conducted a clinical trial to compare the efficacy of oral terbinafine (T, active control) against an experimental regimen, terbinafine plus griseofulvin daily (T+G).

Materials & Methods:

One hundred and thirty-two patients with tinea corporis, tinea cruris or tinea faciei or a combination of these conditions confirmed by microscopy were randomly allocated (ratio 1:1) to two groups, terbinafine (T) and terbinafine plus griseofulvin (T+G). These were the doses administered: T, Oral terbinafine (6 mg/kg/day, maximum 500 mg/day, once daily); T+G, terbinafine (as above) plus oral griseofulvin (10 mg/kg/day, but not <500 mg and not >1000 mg per day, in two divided doses). Patients received treatment for eight weeks, or until they recovered, whichever occurred earlier. For the baseline variables, mean and standard deviation (SD) or median and interquartile range (IQR, IQ1- IQ3) were calculated depending on the distribution of data. Cure rates were compared by Fisher exact test. P values less than 0.05 were considered significant.

Results:

At baseline, the patients in both groups were similar in terms of their age, gender, weight, length of tinea, and affected body surface area. At 4 weeks, none of the patients were cured in both groups. At 6 weeks, 1(1.5%) and 4 (6.1%) patients were cured in T and T+G groups, respectively (P=0.417). At 8 weeks, 17 (25.8%) and 19 (28.8%) patients were cured in T and T+G groups, respectively (P=0.845). For cure rate at 8 weeks, number needed to treat (NNT) for T+G (versus T), was 33. The intensity of itching decreased in all treatment groups, and at the point of cure, itching was absent in all treated patients. No adverse events were detected on investigations and none were reported by the patients.

Conclusion:

In light of the current altered dermatophytosis epidemic in India, the data provided here demonstrate the futility of treating individuals with tinea corporis, tinea cruris, and tinea faciei with a combination of griseofulvin and terbinafine. There is an urgent need for better therapeutic alternatives.

Challenges in Diagnosing Pyoderma Gangrenosum with Mycobacterium fortuitum Infection

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Introduction & Objectives:

Pyoderma gangrenosum (PG) usually appears as a chronic ulcer and other causes must be ruled out before reaching a definitive diagnosis. Cutaneous mycobacteriosis by rapidly growing mycobacteria typically arises after traumatic or surgical wounds come into contact with water or other contaminated substances. However, its presence in a wound is not always pathogenic and may be a contaminant. Clinical correlation is essential to achieve diagnosis. We present a case of PG involving Mycobacterium fortuitum.

Materials & Methods:

We present a clinical case

Results:

A 42-year-old woman with Crohn's disease undergoing treatment with Infliximab presented with an ulcer on the scalp. Six months prior, an ulcer had developed in a head wound related to a car accident. Treatment for various bacteria cultured from the ulcer (S. Aureus, E. Coli) with various antimicrobial agents (amoxicillin, ciprofloxacin, cloxacillin) had failed. The ulcer had a friable base with violaceous raised edges. An inconclusive biopsy was taken and Mycobacterium fortuitum was found in the culture of biopsy tissue. A cutaneous infection by rapidly growing mycobacteria was suspected, and antimicrobial therapy with doxycycline and ciprofloxacin was initiated along with oral prednisone. Marked deterioration was observed after 10 days of treatment and a second biopsy was performed. The examination showed a polymorphonuclear neutrophilic infiltrate, multinucleated giant cells, signs of vasculitis with thickening of the vessel wall, and fibrinoid degeneration. With these histological findings, clinical history and appearance, a diagnosis of PG was made and M. fortuitum was deemed a contaminant. Cyclosporine was initiated at a dose of 1 mg/kg per day, and specialized care of the ulcer was provided in the hyperbaric chamber, resulting in fast improvement.

PG is mainly a diagnosis of exclusion and has to be considered in patients with inflammatory bowel disease. PG can arise after a trigger traumatic event, as in our case. Infliximab is used in the treatment of PG, however, in our case it was insufficient to prevent PG. Infliximab can also be the cause of PG in a paradoxical reaction. In our case this is unlikely because temporal correlation is lacking. Even though cutaneous infections with M. fortuitum have been documented in patients treated with Infliximab and Adalimumab for rheumatoid arthritis and psoriasis, in our patient it acted as a distractor and a contaminant delaying our diagnosis of PG.

Conclusion:

We present a difficult case of PG after a trauma in a 42-year-old woman undergoing treatment with Infliximab. Identification of Mycobacterium fortuitum in cultures can be a contaminant and clinical response must be closely monitored in order to obtain an accurate diagnosis.

Acquired Epidermodysplasia verruciformis Liquen Nitidus Like, case report.

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Introduction & Objectives: The term acquired epidermodysplasia verruciformis (AVE) is a syndrome resembling EV, occurring in immunocompromised individuals due to factors like organ transplantation and HIV (1,2). AVE typically manifests as multiple flat papules resembling flat warts on the chest, back, and limbs, often asymptomatic and exhibiting various skin colorations or even similar to lichen planus (3). We report a case of a 33-year-old male recently diagnosed with HIV/AIDS, displaying pruritic lesions similar to lichen nitidus. Biopsy confirmed AVE, and complete resolution was achieved after one month of systemic isotretinoin treatment.

Materials & Methods: A 33-year-old male, recently diagnosed with HIV/AIDS, histoplasmosis, cytomegalovirus disease, and Epstein Barr mononucleosis, receiving antiretroviral and antimicrobial therapy, was referred to dermatology for pruritic papules on the neck and hands persisting for two months. Physical examination revealed shiny flat papules, some whitish, with smooth surfaces, measuring 2-3mm mainly on the hands, neck, scalp, and thighs. Initially suspected as lichen nitidus, biopsy confirmed AVE associated with HIV, prompting treatment with isotretinoin 20 mg per day. After one month, lesions completely resolved, and the patient remains asymptomatic.

Results: Epidermodysplasia verruciformis (EV) increases susceptibility to Human Papillomavirus (HPV), notably strains HPV-5 and HPV-8 (4,5). AVE often stems from compromised cellular immunity, particularly in HIV cases (6), as in our case. Skin manifestations resemble Pityriasis versicolor-like and HPV-like lesions (3), posing diagnostic challenges due to diverse clinical presentations (7). According to our research, only one case, similar to ours, has been published, he had a history of HIV and developed similar lesions to lichen nitidus (2). Histologically, EV is characterized by a thickened and disrupted granular layer with blue-gray cytoplasm in the enlarged keratinocytes (3), with common HPV detection in skin biopsies from immunocompromised patients with suspected EV, leading to an increased risk of dysplasia (7). Treatment options for AVE are limited, focusing on reducing lesion recurrence through combined therapies. Systemic isotretinoin demonstrated complete lesion resolution within one month in our case, although its specific action in EV remains unexplored (3). While the prognosis of EV is generally favorable, achieving complete remission remains elusive (2). Regular dermatological follow-up is crucial due to the malignant potential of lesions (2). Despite the absence of new lesions post-treatment in the presented case, ongoing monitoring and thorough patient examination are emphasized (2).

Conclusion: In conclusion, our case underscores the heterogeneity of AVE, exemplified by a 33-year-old male with HIV history displaying atypical clinical features. Regular dermatological follow-up is imperative due to the malignant potential of lesions.

The great impostor: "fungal syphilis", a case report from Spain

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Introduction:

Histoplasmosis is a deep mycosis caused by the dysmorphic fungus *Histoplasma capsulatum*, which can behave as an opportunistic pathogen causing disseminated forms in immunosuppressed patients. We report a case with atypical cutaneous manifestation

Case report:

31-year-old male, cocaine and cannabis user, HIV-positive due to vertical transmission with poor adherence to treatment and loss of follow-up who came to the emergency department for fever, diarrhea, cough and lymphadenopathies. The patient lived in Italy and in the Dominican Republic where he reported contact with bats. During his hospitalization he began to develop purpuric maculopapular skin lesions, some with central hemorrhagic crusting on the trunk and proximal extremities, also associated with oral ulcers and facial acneriform lesions. Laboratory studies showed 34 T CD4 lymphocytes/mm3, high HIV viral load, marked elevation of acute phase reactants, hypertriglyceridemia and thrombopenia, as well as negative microbiological studies for viruses, bacteria (including syphilis), mycobacteria, cryptococcus and toxoplasma. A skin biopsy was performed showing granulomas in the dermis with histiocytes parasitized by ovoid yeast-like microorganisms with clear perinuclear halo with PAS staining. Histology was compatible with disseminated histoplasmosis, which was corroborated by PCR and microscopy imaging of bone marrow aspirate. The bone marrow also showed evidence of hemophagocytosis. Treatment with HAART and intravenous amphotericin B was started with resolution of skin lesions and clinical and analytical improvement.

Discusion:

Histoplasmosis is endemic to Central Eastern United States, especially the Ohio and Mississippi River Valleys, in Central and South America, and Africa, but is less frequently reported in Europe. *Histoplasma capsulatum* usually grows in warm, moist environments rich in bird and bat droppings, which is related to our case. Cutaneous involvement may occur by direct inoculation or hematogenous dissemination. Skin involvement in disseminated forms ranges from less than 10% in the USA to 38-85% in Latin America, hemophagocytic syndrome has been described in <1% of cases. Lack of specificity of skin lesions makes diagnostic suspicion difficult: ranging from papule, plaques with or without crusts, pustules and nodules to mucosal ulcers, erosions, lesions resembling molluscum contagiosum, acneriform eruptions... Purpuric lesions, as our case, have been rarely reported in the literature. The treatment of choice is intravenous amphotericin B in severe cases and itraconazole in mildmoderate cases that tolerate oral treatment.

Conclusion:

Disseminated histoplasmosis is characterized by a polymorphism in its cutaneous involvement and should be ruled out in AIDS stage patients with skin lesions and epidemiological history. Hemophagocytic syndrome may be a manifestation of this disease with a poor prognosis.

Recurrent erythema necroticans: A reminiscent of rpob gene mutation-induced rifampicin resistance

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Introduction & Objectives:

The usual chronic course of leprosy is commonly interrupted by lepra reactions. Atypical, recurrent or difficult-to-treat reactions, can have noteworthy implications. Our aim is to report a case of steroid-dependent recurrent erythema necroticans with rifampicin resistance.

Materials & Methods:

For drug sensitivity testing: slit-skin smear samples were collected from four sites using different stainless-steel blades for each site, and the blades were rinsed into separate 1.5 ml centrifuge tubes pre-filled with 1ml of 70% ethanol. They were stored and transported to the laboratory at room temperature. DNA extraction was done and tested for mutations in rpoB, folP and gyrA genes.

Results:

A 46-year-old male, a known case of lepromatous leprosy, was on multibacillary multidrug therapy consisting of rifampicin, clofazimine and dapsone since the last 8 months regularly. He had a baseline bacteriological index (BI) of 5+ and had suffered from multiple episodes of severe necrotic erythema nodosum leprosum (ENL) since then, necessitating use of systemic steroids. The current ENL episode was associated with widespread tender nodules, deep and inflamed necrotic ulcerations with eschars, pain, neuritis and constitutional symptoms. Skin biopsy was consistent with ENL and BI was 4+. Triggering factors including infections, physical/mental stress were ruled out. Failed attempts to taper steroids were made at different points of time, by giving additional doses of rifampicin and clofazimine, thalidomide, methotrexate, colchicine and zinc. He eventually developed steroid-dependance and insulin resistance. Drug sensitivity testing was undertaken which detected rpoB gene mutation. Second line alternative anti-leprosy therapy comprising of minocycline, clofazimine and ofloxacin was initiated. Excellent control of erythema necroticans was achieved and steroids could be withdrawn over 2 months.

Conclusion:

Recently, an increasing number of reactional leprosy patients have been found to be unresponsive to traditional therapies, one of the reasons being drug resistance. Only three such rifampicin-resistant ENL cases have been previously reported in the literature, and to the best of our knowledge, ours is the first case report of rifampicin-resistant recurrent erythema necroticans. It is important to consider drug resistance because it has a dual impact: the therapeutic implications and the risks associated with the spread of drug-resistant strains in the community. We believe resistant bacilli play a significant role in causing atypical presentations of reactional leprosy, and such cases should suggest urgent drug sensitivity testing. Detection of drug resistance is however hindered, as testing laboratories may not be available in every state of India.

A Case of Atypical Demodicosis Revealing HIV-Associated Immunodepression

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Introduction & Objectives:

Demodicosis (DD) is caused by the proliferation of Demodex mites within the pilosebaceous follicle (PF). The clinical presentation varies, with rosacea-like DD being the most common. This ectoparasitosis affects immunocompetent individuals but is favored by immunosuppression (IS).

Materials & Methods:

We report a case of DD with an atypical hyperpigmented clinical presentation revealing primary HIV infection.

Results:

A 37-year-old woman with a 3-year history of type 2 diabetes presented with hyperpigmentation on an erythematous background on her face evolving over 2 years. There was no history of topical or systemic medication use before the onset of this eruption. Clinical examination revealed violaceous- grey-colored and edematous patches on the cheeks and dorsum of the nose, overlaid with papules and pustules. Dermoscopy revealed a perifollicular pigmented network and whitish spicules emerging from PF orifices. Parasitological examination revealed a Demodex count exceeding 5 per cm2, confirming the diagnosis of DD. The patient was treated with metronidazole combined with doxycycline for 2 months, followed by topical ivermectin for 3 months. Partial improvement of erythema with persistent brownish pigmentation of the cheeks was noted.

During follow-up, white coating on the buccal and vulvar mucosa was observed, suggesting candidiasis and prompting HIV screening, which was positive (CD4 count below 200 per mm3). Significant improvement in facial lesions was noted 6 months after antiretroviral therapy.

Conclusion:

DD can occur in the context of local (use of topical corticosteroids) or systemic IS (HIV infection, use of immunosuppressants). A few cases of DD have been reported in HIV-infected individuals, most often at the AIDS stage or with a CD4 lymphocyte count below 200 per mm3, as was the case with our patient. Therefore, some authors have considered DD as an opportunistic ectoparasitosis. There are no clinical elements suggestive of IS in DD. However, a profuse eruption, with lesion extension beyond the face (back, presternal region, upper limbs), should raise suspicion of underlying IS. In our patient, the clinical presentation was atypical with facial hyperpigmentation. Diagnosis was facilitated by dermoscopy showing the characteristic "Demodex tails" appearance. This clinical presentation has recently been described as "pigmented demodicosis" with only a few cases reported in the literature. Treatment of DD in HIV-positive patients is not standardized. Metronidazole or ivermectin (topical or oral) are often used.

Buccal Papulonodular Lesions: What's the Diagnosis?

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Introduction & Objectives:

Multifocal epithelial hyperplasia (MEH), or Heck's disease, is a rare benign oral condition typically associated with infection by human papillomavirus (HPV) types 13, 32, or both.

We present a case of MEH with a discussion of the clinical and histopathological diagnostic challenges.

Materials & Methods:

We present a case of MEH initially misdiagnosed as verrucous carcinoma (VC).

Results:

Case Report:

A 63-year-old man with no significant medical history presented with a whitish lesion on the inner surface of the lower lip and lower gum, which had been present for several years. Biopsy initially suggested VC, prompting wide excision involving the vermillion, anterior buccal floor, and a mandibular fragment with lymph node dissection.

Histopathological examination revealed acanthotic, parakeratotic squamous epithelium with a flat surface and often rectilinear basal layer without verrucous features. Superficial keratinocytes exhibited ballooning degeneration, some with koilocytic nuclei, occasionally double, surrounded by a clear halo. Some cells showed mitosis-like figures. There was no architectural disorganization, cytonuclear atypia, or mycotic grafting. These multifocal epithelial hyperplasias were separated by a normal-thickness squamous epithelium, with a dense subepithelial lichenoid lymphocytic infiltrate. All lymph nodes were non-tumorous. Upon clinical correlation, a diagnosis of MEH was ultimately made.

Conclusion:

MEH is a rare, contagious, asymptomatic, benign disease affecting the oral mucosa, often observed in family members. Predominant in children and adolescents, it can occur at any age. It presents as small isolated or grouped papules or nodules, often localized on the lower lip. Asymptomatic, the lesions match the color of the oral mucosa and are rarely found on the gums. The lower lip is the most commonly affected site. The disease is associated with HPV 13 and 32, with risk factors such as low socioeconomic status, poor oral hygiene, object sharing, smoking, and immunosuppression.

Histological examination reveals consistent koilocytosis, epithelial hyperplasia with parakeratosis and acanthosis, widened epidermal ridges, ballooned degenerated keratinocytes, and mitosis-like figures.

Our case is notable for the extensive presentation of lesions and the unusual location on the gums, particularly in an adult without immunosuppression, explaining the misdiagnosis of verrucous carcinoma based on a partial biopsy.

MEH does not require surgical treatment given its benign nature, except in cases of extensive involvement or bothersome localization.

Our case underscores the importance of recognizing this rare entity, which can have misleading clinical and histological presentations, to avoid unnecessary mutilating procedures.

Primary cutaneous mucormycosis in a premature neonate: report of an atypical presentation with successful conservative treatment

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Introduction & Objectives: Mucormycosis is a potentially fatal infection caused by fungi of the Mucorales order, with clinical presentations including rhino-cerebral, pulmonary, gastrointestinal, cutaneous and disseminated forms. The disease mainly affects immunocompromised individuals and is very rare in children, particularly in the primary cutaneous form. This form may present as ulcerated and necrotic lesions that progress and disseminate rapidly or as vesicles and pustules mimicking more common vesicular diseases such as herpes virus infection, pyodermitis, candidiasis and drug eruptions. Due to the potential severity of the disease and the difficulty in establishing the diagnosis, the aim of this report is to illustrate the dermatological presentation, as well as the diagnostic and therapeutic management of mucormycosis in the complicated context of hospitalized neonates.

Materials & Methods: Case report of an extremely premature newborn (27 weeks of gestation) whose mother was immunosuppressed. On day 13 of life, the baby developed a well-defined erythematous plaque containing vesicles and pustules grouped in circular fashion on the cervical region and deterioration of the overall clinical state. Investigation with skin biopsy for anatomopathological study with Periodic-acid-Schiff (PAS) and Grocott stains highlighted the presence of wide cenocytic hyphae and culture of the fragment identified filamentous fungus, compatible with *Lichtheimia spp*.

Results: In the presence of compatible clinical context, the histological visualization of wide cenocytic hyphae, as well as the growth of zygomycetes in the skin fragment culture confirm the diagnosis. Therefore, exclusive drug treatment with Amphotericin B 1mg/kg/day for 28 days was chosen. The dermatological condition progressed to complete resolution and there was also systemic benefit with clinical stabilization of the patient. As far as we know, only four cases have been reported where therapeutic success was achieved without the need for surgical intervention.

Conclusion: The case illustrates the importance of considering the hypothesis of cutaneous mucormycosis in the evaluation of vesicular lesions in premature neonates. It is a challenging disease with a poor prognosis, demanding a high clinical suspicion for rapid diagnosis and precise treatment.

A rare case of Leishmania braziliensis Cutaneous Leishmaniasis presenting as folliculitis

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Introduction & Objectives:

Cutaneous leishmaniasis is a neglected tropical disease characterized by various clinical presentations. We present here a rare atypical form observed in French Guiana

Materials & Methods:

We report the case of a 46-year-old man, a military personnel with no notable medical history. He had been working in French Guiana for 6 years and regularly went on missions in the forest. He consulted for an ulceration of the neck that had been progressively worsening for the past month during the rainy season. Given the clinical appearance and disease history, a diagnosis of cutaneous leishmaniasis was suspected, confirmed by histopathology and a positive PCR for Leishmania braziliensis. A treatment with liposomal amphotericin for 5 days was proposed, and a good clinical evolution was observed at the one-month follow-up. Clinically, the patient also had folliculitis on the upper back for which we performed local bacterial sampling and site decontamination. Upon clinical reevaluation at 1 month, despite complete healing of the ulceration, the folliculitis was still present. Bacterial samples were negative. we perform leishmaniasis culture which comes back positive for L.braziliensis. Treatment with Miltefosine 150mg per day, during 28 days, leads to clinical improvement of these lesions at the end of the therapy.

Conclusion:

We report the case of a patient who simultaneously presented two distinct clinical manifestations of L. braziliensis: an ulceration and a folliculitis, with ineffectiveness of ambisome on the folliculitis. Unfortunately, the culture performed on the ulceration was contaminated, preventing us from comparing the different strains. Two hypotheses remain plausible to explain this clinical situation: the existence of two distinct strains of L. braziliensis, one of which is resistant to ambisome, or a poor bioavailability of ambisome in the follicle. Dermatologist should be aware of this rare and atypical presentation and should look for a cutaneous leishmaniosis when encountering folliculitis in endemic area particulary in case of no improvement with antibiotics.

Buschke's scleredema post covid 19 infection: case report

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Introduction & Objectives:

Buschke scleredema is a sclerodermiform syndrome of unknown cause. It is a rare disease that is sometimes associated with hypergammaglobulinemia. The initial description (Buschke's Sclerædema adultorum) was made in 1902 by Mr Buschke who described a 46-year-old adult who presented, following a flu, a skin induration that began at the nape of the neck and then spread widely, sparing hands and feet.

Clinical case:

We report the case of a 15-year-old female patient, with failure to thrive with primary amenorhea, and cerebral thrombophlebitis under treatment and who presents a cutaneous sclerosis of both hands, two wrists and both legs, with edema facial and edema of the lower limb that does not settle, all evolving for 2 years with remission flare-ups. Without other associated cutaneous or extra-cutaneous signs. The patient reported the notion of a covid 19 infection before the appearance of dermatological symptoms. She also presents hypochromic microcytic iron deficiency anemia without other biological abnormalities, notably no diabetes or dysthyroidism. The skin biopsy showed Buchke's scleroedema. Protein electrophoresis was normal. The evolution was marked by a spontaneous improvement of the lesions.

Discussion:

Buschke scleredema is a rare disease characterized by sclerotic edema that affects the upper part of the trunk and can extend to the limbs. It occurs at any age. It can be accompanied by extracutaneous damage. Three types can be distinguished within this pathology: type I appears suddenly secondary to an infection. Type II develops chronically outside of an infectious and diabetic context associated with monoclonal gammopathy. Type III has been called diabetic scleredema. Other potentially associated conditions include a variety of endocrinopathies, systemic diseases, and tumors. It is a rare mucinosis, the pathophysiology of which is still poorly understood, characterized by excessive deposition of mucin and thickening of collagen bundles in the dermis, leading to cutaneous induration, which does not pit, of the skin from the neck, extending to the shoulders and upper part of the trunk, but sparing the hands and feet. If abstention is the rule when scleredema does not have severe functional impact, no treatment is well codified when it proves necessary. Treatment of underlying diabetes does not usually improve scleredema. The diagnosis is clinico-histological. An etiological investigation should be carried out in the event of Buschke's scleredema. Puvatherapy has given good results for Buschke's scleredema in diabetics. The evolution of the acute form is generally favorable with or without treatment.

Conclusion:

Physicians should suspect scleredema in any patient with diffuse thickening of the skin where the hands and feet are spared, particularly if diabetes or a previous febrile episode was present. Once the diagnosis of scleredema is made, hypergammaglobulinemia or diabetes must be ruled out.

Orf disease transmitted through a cat scratch

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Introduction & Objectives: Orf disease affects predominantly sheep and goats and is transmitted to humans by direct contact with infected animals. Transmission through other animals, though rare, has been reported in the literature.

Materials & Methods: Herein we report a case of orf disease resulting from a cat scratch.

Results: A 30-year-old female patient presented with an isolated, slowly growing, reddish-blue plaque with a central hyperkeratotic area on her right thumb, which persisted for three months and was painful in palpation. She did not report any systemic symptoms and the clinical examination revealed no other skin pathologies or lymphadenopathy. On questioning she reported contact with a cat but no domestic or occupational contact with sheep, goats or fish. Clinical differential diagnosis included granuloma annulare, verruca vulgaris, giant molluscum, keratoacanthoma, fungal, bacterial or atypical mycobacterial infection. Histopathological examination revealed epidermal hyperplasia and hyperkeratosis with areas of intracytoplasmic eosinophilic inclusions, along with dermal edema and a mixed infiltrate of lymphocytes and histiocytes. Based on the clinical and histopathological findings the patient was diagnosed with orf disease, acquired from infected cat, and received topical antiseptic and antibiotic therapy to prevent secondary bacterial disease infection, leading in complete resolution of the lesion after 6 weeks.

Conclusion: Orf disease, also known as ecthyma contagiosum, is a zoonotic infection caused by orf virus, a member of the parapox family. The disease is considered endemic to sheep and goats. Transmission to humans occurs through direct contact with infected animals or contaminated objects, primarily affecting farmers and shepherds.

Typically, human orf disease initially presents as a papule progressing to a nodule or pustule with central umbilication, surrounded by an erythematous ring. Usually, the disease manifests on the dorsum of the hands, but uncommon locations, such as perioral and nasal area, have been reported. The diagnosis is often established by clinical findings and a history of contact with infected animals. In atypical cases histological examination confirms the diagnosis, which reveals characteristic intranuclear or intracytoplasmic eosinophilic inclusions in the keratinocytes. The infection is self-limited with lesions resolving within 4-8 weeks without scarring.

To date, only one case of orf disease transmitted through a cat scratch has been reported, suggesting the potential presence of the virus in cats' feet. Therefore, clinicians should remain vigilant, as indicated by our case, orf disease may occur in patients without a typical exposure history.

Primary extensive and circumferential cutaneous actinomycosis: A case report

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Introduction & Objectives:

Cutaneous actinomycosis is a chronic and rare bacterial infection. Classified as a neglected disease by the WHO, it is defined as any process in which actinomycotic agents produce grains. We report a case of extensive and circumferential actinomycosis presenting a diagnostic and therapeutic challenge.

Case report:

A 49-year-old patient, who suffered an accident on a rural road 11 years ago resulting in a cutaneous wound adjacent to the right knee, was admitted for painful poly-nodular and poly-fistulous lesions of the right lower limb evolving over 8 years in a context of afebrile condition and overall general health preservation complicated by partial functional impairment. He had been treated several times with antibiotics without success. Examination revealed an irregularly swollen inflammatory plaque, poly-nodular and painful, covered with crusts in some areas, poly-fistulous with sero-hematic fluid discharge, pus, and whitish sub-millimeter grains, extending from the inguinal region to the upper third of the right leg, with atrophic scar lesions encircling the right knee and involving both legs, along with ipsilateral inquinal lymphadenopathy measuring 2 cm in diameter, and painful limitation of active and passive flexion of the knee. Biopsy of 3 fragments revealed a suppurative polymorphic granulomatous dermatitis of infectious origin, with the presence of actinomycotic grains. Bacteriological and mycological study of the remaining fragments was negative, while microbiological study of the pus revealed gram-positive filamentous bacteria; however, culture was sterile. Imaging studies including MRI of soft tissues and bone CT scan showed infiltration of the thigh and leg soft tissues complicated by fasciitis and myositis without bone involvement. Laboratory findings showed leukocytosis with neutrophilia and CRP of 90 mg/l. Treatment was initiated following multidisciplinary consultation. Given the mutilating aspect of the lesions, surgical intervention was not considered feasible. Therefore, the patient was initially treated empirically pending microbiological results, with high-dose cotrimoxazole, amoxicillin-clavulanic acid in injectable form for 1 month followed by oral switch, amikacin at 15 mg/kg/day by injection for 7 days, terbinafine 500 mg/day for 3 months, dapsone at 100 mg/day in combination with physical rehabilitation sessions. Evolution showed reduction of swelling, regression of fistulas, drying of lesions, and joint release.

Conclusion:

Finally emerging from obscurity, actinomycosis poses diagnostic challenges due to its rarity and difficult, delayed, and not always feasible microbiological identification. Treatment is almost exclusively medical, based on long-term antibiotic therapy, with cotrimoxazole being the gold standard; combination with amikacin is reserved for severe or resistant forms. Antibiotic choice should consider the site of infection, sensitivity of accompanying flora, severity of the condition, and patient response. Surgical indications are rare and considered after successful medical treatment. Further studies are needed to determine factors for definitive cure and recurrence.

disseminated cutaneous-only histoplasmosis in two immunosupressed patients

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In a booming era of immunosuppressive treatments and biologics, we present two cases of disseminated cutaneous-only histoplasmosis which is an uncommon clinical form observed in two argentinian immunosuppressed patients.

A 73-year-old female patient with history of dermatomyositis, immunosuppressed with methylprednisolone, azathioprine, rituximab and mycophenolate mofetil who arrived at our dermatology ward with poor general condition and consulted for four months old painful skin ulcers on her face and the upper limbs associated with weight loss, denying respiratory symptoms and fever. On the physical examination, she presented poorly defined ulcers on both eyelids, the left temple and left elbow all covered with a honey-colored crust, located on a sclerodermiform skin. Erythema, edema on both forearms and hands were also present with periungual telangiectasias, and a crusted erosion in the sternal region. Hospitalization was decided to rule out an associated infectious or neoproliferative process due to the poor response to the treatment of her underlying disease. Skin biopsies of the ulcers were performed showing a cutaneous histoplasmosis with a positive culture for deep mycosis reporting Histoplasma Capsulatum. In the laboratory, leukopenia with neutrophilia, mild anemia, with an increased protein C reactive and erythrocyte sedimentation rate, while the rest of the complementary studies were negative. She underwent treatment with intravenous Amphotericin B for 2 week and later with daily oral itraconazole showing clinical improvement of skin lesions.

The second case is a 36-year-old female patient with a history of an Asia Syndrome with joint involvement, multiple mononeuritis, dysautonomia, hyperreflexic neurogenic bladder, and gastroparesis undergoing treatment with upadacitinib, mycophenolate, long-term corticosteroids who consulted for two-week-old painful erythematoviolaceous, edematous, and infiltrated plaque covered by some crusts in the infraumbilical region.

A soft tissue ultrasound was requested, which showed an increased echogenicity of the adipose tissue at the subcutaneous level, without evidence of collections or communication. A skin biopsy was performed, reporting an interstitial granulomatous dermatitis with negative microbiological studies. Two weeks later, she presented progression of the abdominal plaque with a central ulceration, accompanied by the appearance of painful and erythematous nodules in upper and lower limbs, located on a skin with livedo reticularis and an ulcer on the left lower limb. A second skin biopsy was performed on the left arm nodule arm and the necrotic abdominal plaque for histopathological, microbiological, and molecular studies, being compatible with histoplasmosis, with positive Periodic Acid Schiff (PAS) stains. At the abdominal level, similar histological characteristics were observed, with the additional presence of septolobular where PAS-positive fungal structures were also recognized, without evidence of granulomas. A positive PCR for Histoplasma capsulatum was also obtained from skin biopsy, establishing the diagnosis of disseminated histoplasmosis with dermal involvement. Complementary studies had no significant alterations.

In light of these findings, immunosuppressive treatment was discontinued and she underwent the same antifungal treatment with a good clinical response.

Cryotherapy in the Treatment of Scabies: In Vitro Lethal Effect of Cryotherapy on Sarcoptes Scabiei

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Introduction & Objectives: The escalating global scabiasis crisis, particularly since 2019, has reached a critical point. While some authorities attribute this surge to irregular migration and the COVID-19 pandemic, others suggest treatment failure. The efficacy of current treatment agents, such as permethrin, is believed to have waned over time. As the effectiveness of these agents is being questioned, the imperative for research on new treatment modalities is becoming increasingly apparent. In this context, we present our in-vitro study on the scabicidal effect of cryotherapy, a potential new treatment modality.

Materials & Methods: Our study was meticulously designed, with three randomized study groups, each consisting of 13, 14, and 16 mites, respectively. We investigated the effect of freezing cycles, gradually decreasing in seconds, to minimize the risk of post-inflammatory hyperpigmentation when applied directly to the patient in daily practice. Freezing cycles of 3 seconds, 2 seconds, and 1 second were applied to the groups using the thin long tip of the cryotherapy gun. Mite viability was evaluated immediately after freezing, thawing, and 10 minutes after the procedure, ensuring a comprehensive assessment of the treatment's effects (Figure -1).

Results: The movements of the mites were evaluated before freezing, immediately after freezing, after thawing of the frozen area, and 10 minutes after the procedure. It was observed that all mites were immobilized after the treatments. The mites were followed for 10 minutes after the treatment to determine whether the immobility was a temporary response to the treatment. In this follow-up, no movement, even minimal, was observed in any of the mites. All cryotherapy freezing cycles of 1 s, 2 s, and 3 s showed an acaricidal effect.

Conclusion: Mites in all study groups were observed to remain immobilized after freezing cycles. Re-evaluation was performed after 10 minutes in case the mites reactivated after thawing. It was determined that the mites in all study groups died as soon as they were exposed to the gas. Even a short 1-second freezing cycle killed the mite, which was a significant and promising result, demonstrating the potential of the application in clinical practice. The scabicidal effect of cryotherapy on mites can be utilized in cases that cannot be treated with current treatment options or when supportive treatment is targeted to strengthen the treatment.

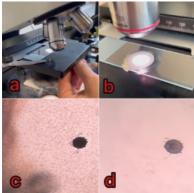


Figure-1: a. Cryotherapy treatment b. Slide image immediately after freezing

Harmony in Complexity. Unveiling the Dance of Dermatomyositis and Lyme Disease

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Introduction & Objectives: : In the intricate realm of autoimmune diseases and infectious pathogens, the intersection of Dermatomyositis (DM) and Lyme disease (LD) unveils a captivating narrative of complexity and intrigue.

Materials & Methods: This report details the case of a middle-aged Caucasian woman with a 7-month history of DM, who experienced an exacerbation of the preexisting inflammatory pathology subsequent to the diagnosis of LD.

Results: A 50-year-old female patient, previously diagnosed with DM and familiar to our clinic, presented with characteristic signs of the condition, including proximal muscle weakness, the Shawl sign, Holster sign and periungual involvement, as well as pathognomonic findings such as Gottron papules, heliotrope rash and extracutaneous manifestations, notably esophageal dysfunction. Additionally, she exhibited a pruritic oval shaped lesion, measuring approximately 15 cm in diameter, with pale, indurated, shiny center surrounded by erythematous margins on the antero-superior region of the right thorax, which had developed almost 30 days prior. A thorough physical examination also revealed diffuse, pruritic scaly dermatosis with erythema and atrophy on the scalp, progressing subsequently to non-scarring alopecia. Despite no reported history of tick bite, the patient mentioned finding a tick on her dog recently. Laboratory investigations revealed elevated IgM and IgG values, prompting tests for anti-Borrelia burgdorferi antibodies. Positive results for anti-Borrelia burgdorferi IgM antibodies, in conjunction with the patient's history, led to the diagnosis of Lyme disease. Antibiotic therapy was initiated for 7 days, leading to the resolution of the lesion. For scalp involvement, a combination of a topical corticosteroid and salicylic acid was prescribed, along with a comprehensive hair regrowth regimen comprising internal and topical treatments. As previously mentioned, the erythematous and scaly scalp condition progressed to a non-scarring form of alopecia, successfully managed over the months that followed.

Conclusion: In the complex tapestry of autoimmune diseases and infectious pathology, the convergence of DM and LD presents a challenge both from a diagnostic and therapeutic point. The literature reports relatively few cases where either LD triggers DM or it occurs with a dermatomyositis-like manifestation as the primary focus. In our case, Lyme disease appears to have exacerbated the preexisting lesions of dermatomyositis, particularly evident in the absence of scalp involvement before tick exposure. The overlapping symptoms between the two conditions, such as fatigue, muscle pain and joint stiffness, further complicate diagnosis, creating a challenging clinical scenario where the exacerbation of preexisting autoimmune inflammation by infectious triggers adds layers of complexity to diagnosis and management. A high index of suspicion for both conditions is essential. Detailed medical history, thorough physical examination, appropriate laboratory investigations and an interdisciplinary approach are imperative for effective management.

Clinical characteristics and therapeutic outcome of human mycetoma: a single-center case series from Yogyakarta, Indonesia

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Introduction & Objectives:

Mycetoma represents a rare and chronic granulomatous soft tissue infection, distinguished by its etiological origins of Gram-positive filamentous bacteria (actinomycetoma) and true fungi (eumycetoma). As the most prevalent subcutaneous mycosis, mycetoma exhibits endemicity in tropical and subtropical regions, although reports of its occurrence extend globally. Since 1960, approximately 8,763 mycetoma cases have been documented worldwide, indicating its global burden. Epidemiological data regarding mycetoma in Indonesia remain largely unknown, and clinical case documentation in this region is scarce. The purpose of this study is to present a serial analysis of human mycetomas diagnosed within a referral center in Yogyakarta, Indonesia, between 2012 and 2024.

Materials & Methods:

The diagnosis of mycetoma was performed by multidisciplinary teams consisting of dermatologists specialised in tropical skin infections and dermatopathologists. A retrospective examination of case records was conducted, and clinical parameters were extracted based on a standardized form.

Results:

There were seven patients diagnosed with mycetoma in the cohort, aged 19 to 56. The majority of the patients were male, representing 85.7% of the cohort. Four patients (57.14%) were engaged in outdoor occupations. All cases showed nodules, sinuses, ulcers, and subsequent scarring as the dermatological manifestation. In all patients, cutaneous lesions predominantly appeared on the lower extremities, with two cases exhibiting spreading to the inguinal region. Osteomyelitis was observed in two patients (28.5%). Skin biopsy across all patients consistently revealed subcutaneous suppurative granulomas, albeit Splendore-Hoeppli phenomenon were visible in two cases (28.5%). Fungal culture showed the growth of Actinomyces species only in one patient. Treatment modalities varied, with therapeutic regimens encompassing cotrimoxazole monotherapy (28.5%), combination of cotrimoxazole and fluconazole (42.8%), combination of co-amoxiclav and fluconazole, and combination of cotrimoxazole and fluconazole, both at 14.3% each. Treatment outcomes showed variable responses, with two patients (28.5%). achieving complete lesion resolution, three (42.8%) experiencing partial improvement, and one necessitating lower limb amputation due to refractory disease. No treatment-related side effects were observed.

Conclusion:

In summary, this study provides crucial insights into mycetoma cases in Yogyakarta, Indonesia, where data have been lacking. It highlights the predominance of male patients with outdoor occupations and typical dermatological manifestations mainly on the lower extremities, along with the occurrence of osteomyelitis as a complication. Despite the small sample size, diverse treatment approaches were observed, resulting in variable outcomes. Further research, involving a multicenter approach, is warranted to better understand mycetoma's epidemiology in Indonesia and to improve therapeutic strategies. This study underscores the ongoing need for

vigilance and research in addressing this neglected tropical disease.

Staphylococcal scalded skin syndrome in adults

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Introduction & Objectives:

Staphylococcal scalded skin syndrome (SSSS) or Reither's disease is a blistering skin disorder caused by a toxin secreted by staphylococci. It mainly affects children under 2 years of age, and rarely adults with immunodepression. The purpose of this case series is to describe the epidemiologic, clinical, biological, and therapeutic profile in adults.

Materials & Methods:

Here, we report 8 cases of (SSSS) in adults with different profiles.

Results:

We included 7 patients with a clinical diagnosis of (SSSS), 4 were male. The mean age was 39 years. 4 patients had a history of superficial pemphigus treated with a daily doses of corticosteroids and azathioprine. 2 patients had a history of pustular psoriasis treated with isotretinoin. All patients were hopsitalized for exacerbation of their dermatosis except one patient who had no medical history. During the hospitalization of these 6 patients, they had developed an erythema followed by large blisters on the extremities and trunk with a fever of 39°C, two patients were complicated by sepsis. 2 out of six bacteriogic samples identified Staphylococcus aureus resistant to methicillin. The 4 others samples showed a Staphylococcus aureus sensitive to methicillin. The male patient who had no medical history, presented to the emergency department with a non pruritic rash on the trunk, large flaccid blisters and fever. The clinical and biological data were consistent with (SSSS). All patients showed good improvement after antibiotic treatment.

Conclusion:

Staphylococcal Scalded Skin Syndrome is a potentially life-threatening skin condition that is less common in adults, particularly those with immunodeficiency syndrome, cancer and renal failure, long-term systemic corticosteroid therapy such as our patients with pemphigus. Clinically, the (SSSS) lacks mucosal involvement, which distinguishes it from scarlet fever, toxic shock syndrome and toxic epidermal necrolysis, which all involve mucosa. In addition, antibiotics that cover staphylococci should be given at an early stage and include cefazolin, nafcillin or oxacillin for methicillin-sensitive Staphylococcus aureus (MSSA). Vancomycin should be given for methicillin-resistant Staphylococcus aureus.

Disseminated Fusarium solani infection presenting as pyoderma gangrenosum

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Title Disseminated Fusarium solani infection presenting as pyoderma gangrenosum

Introduction & Objectives:

Fusarium infection, an opportunistic pathogen, primarily affects immunocompromised patients like hematologic malignancies or extensive burns. We present an unusual case of rapidly progressive ulcers mimicking pyoderma gangrenosum (PG), from which *Fusarium solani* was isolated. This case emphasizes the first report of PG-like disseminated *Fusarium solani* infection through a particular pathway and in the patient with normal immunity.

Materials & Methods:

Through a comprehensive diagnostic workup that included skin lesion biopsy, hematoxylin-eosin staining, special staining, inoculation culture, and gene sequencing, we made a definitive diagnosis. The patient's skin lesions were successfully treated with a combination of luliconazole and voriconazole during a one-month hospital stay.

Results:

The patient's glycosylated hemoglobin was 8.1% (normal range 4 - 6%). No abnormalities were detected in the patient's blood routine and complete immune-related tests. A computed tomography scan of the lungs revealed a few inflammatory nodules in the lower lobe of the left lung. The patient was diagnosed with diabetes, hypertension, coronary heart disease and underwent coronary stent therapy 2 years ago. Besides, lower extremity arteriovenous ultrasonography indicated bilateral atherosclerotic plaques in the lower extremities. Pathological examination showed mild hyperkeratosis of the remaining stratum corneum, and pan-dermal infiltration of abundant plasma cells, lymphocytes, and neutrophils around the entire layer of small vessels.** *Schiff periodic acid shiff (PAS)* and silver hexamine staining revealed a large number of fungal mycelia and spores on the surface of the necrotic area. The acid-fast stain is negative. Crust samples from both lower limbs were respectively inoculated and cultured on Sabouraud dextrose agar (SDA) at 25°C, and white filamentous colonies appeared on all culture tubes after five days. The structures of mycelia and spores under the light microscope and scanning electron microscope were explicit. Ultimately, the fungus was identified as *Fusarium solani* by sequence analysis of a polymerase chain reaction using calmodulin gene-specific primers. After one month of hospitalization, all small ulcers on both lower limbs had healed. The area and depth of the anterior tibial ulcers on the right lower limb were notably reduced compared to the initial condition, with no new cutaneous lesions observed.

Conclusion:

Fusarium infection is sometimes difficult to distinguish from PG, thus microbiology laboratory technology can be beneficial to make definite diagnosis. Even patients with normal immunity, there is still the possibility of disseminated Fusarium infection, and we should observe special infectious vectors such as coronary stent. Our findings also indicated that luliconazole has great efficacy and safety in the treatment of *Fusarium solani* in comparison to other conventional antifungals.

Itraconazole dosed as per the body weight cures Tinea Faciei- a study of 32 cases from Mumbai, India

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Introduction & Objectives: Tinea faciei is an uncommon dermatophytosis affecting the glabrous skin of the face. In the era of dermatophytosis epidemic in India, the cases of tinea faciei have increased. In may cases, the disease is recalcitrant. Their management has been difficult. Itraconazole has emerged as the most effective drug in higher dose & duration in such cases. This study looks at the clinical presentations & response to itraconazole on body weigh basis in cases of tinea faciei.

Materials & Methods: A 2-month data for the month of December 2023 & January 2024 from a solo dermatolgy clinic in Mumbai, India was assessed. Thirty two cases of tinea faciei were diagnosed. There were 11 males & 21 females aged between 9 to 65 years. All the cases were treated with itraconazole in the dose of 5mg per kg body weight per day or Super bioavailable itraconazole in the dose of 3 mg per kg per day. Follow ups were at 2 weekly intervals. The treatment was continued for 6 to 8 weeks.

Results: Typical clinical features were seen in 10. Atypical forms were seen in 22. Ten cases of involvement of pinna were seen. Of the 32 cases, 11 had simultaneous involvement of body (tinea corporis), 2 cases had tinea capitis & 1 case had tinea cruris associated. Of the 32, 24 cases followed up. They all had healed completely. There were 8 cases who were lost to follow up.

Conclusion: Itraconazole works well when dosed as per the body weight of the patient. This dose works out to be higher than the regular dose. This dose may be preferred over standard dose of itraconazole in treating dermatophytosis.

Simultaneous Occurrence of Herpes Zoster and Varicella: a case report

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Introduction:

Varicella-zoster virusinfection causes two distinct clinical diseases: chicken pox and shingles. Primary VZV infection causes chickenpox. It can occur in adults and immunocompromised persons in a severe presentation with high risk of complications. Shingles is caused by reactivation of latent VZV. It occurs most frequently in elders and presents with unilateral dermatomal vesicular rashes, but immunocompromised patients are at higher risk with a more variable clinical presentation. Until now, it has been uncommon for varicella and herpes zoster to be reported concurrently in a single patient. Here, we describe a rare instance of both varicella and herpes zoster occurring simultaneously in an immunocompromised adult.

Case report:

43-year-old female patient with a history of breast cancer presents the day after her third chemotherapy session erosive lesions on the left half of the scalp, covered by a necrotic crust, consistent with herpes zoster. 48 hours after that she presented with an extensive varicella rash consisting of umbilicated vesicles covered with crusts, several of which are necrotic.

The HSV VZV serology test came back positive.

The patient was isolated, and treated with acyclovir 10 mg/kg/8h.

Discussion:

Previous studies have documented instances of varicella and herpes zoster occurring simultaneously in middle-aged and elderly adults; however, such cases are rarely reported. Here, we present another rare occurrence of varicella and herpes zoster in an immunocompromised adult. In this particular case, we ruled out the possibility of exposure to varicella or herpes zoster patients, as the patient's family members were healthy and there was no recent history of travel.

The relationship between herpes zoster and chickenpox was first pointed out by von Bokay of Budapest, in 1888, when he reported cases of the latter disease in members of two families after episodes of herpes zoster in other members. Since then, there has been a growing interest in the subject, especially in the foreign literature.

It would appear, from the literature, that the herpes zoster and varicella viruses are essentially the same, with the virus potentially playing a dual role. One role is neurogenic, as it affects the posterior root ganglia. The other role is hematogenous role as it enters the blood-stream.

The occurence of varicella outbreaks stemming from herpes zoster can be explained by the neurotrophic variant's ability, under host conditions, to transition into a hematotropic variant more readily. The early onset of unilateral herpetic lesions, and the consistent time gap before the varicella outbreak, are attributed to the neurotrophic virus needing time to breach from the perivascular spaces into the bloodstream, transforming into a hematotrophic virus. The prevalence of varicella in children and the non-immune individuals, and the higher incidence of herpes

zoster in the elderly and those who had varicella in childhood, can be attributed to the selective activity of the biphasic virus. Additionally, any modification observed in the varicella eruption, when coexisting with herpes zoster, may result from the presence of anti-bodies, already produced during the latent phase following the herpetic attack.

Conclusion:

In summary, we conclude that the viruses of chickenpox and herpes zoster must be either identical or very closely related, and the rare cases of the two diseases occurring simultaneously can be explained by increased virulence of the virus.

Diagnosing the unseen: PCR in leprosy

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Introduction & Objectives:

Early detection of leprosy is crucial to prevent disability and reduce the global burden of neurological impairment caused by the disease. Despite global eradication efforts, leprosy remains a significant cause of disability worldwide, with India, Brazil, and Indonesia collectively accounting for over 70% of cases. The WHO Global Leprosy Strategy 2021-2030 aims to reduce disease transmission by promoting early diagnosis and identifying subclinical infections. However, traditional diagnostic methods, such as bacillary counts of skin smears and histopathology, have limited sensitivity, particularly in patients with few or no cutaneous lesions in subclinical cases and contacts.

Polymerase Chain Reaction (PCR) holds significant promise for the early diagnosis of leprosy, a disease with profound implications for individual health and public health burden.

Aims and Objectives:

- To evaluate the utility of Polymerase Chain Reaction (PCR) in facilitating early diagnosis and treatment initiation in patients with leprosy who present with few or no cutaneous lesions or exhibit negative results on slit skin smear and biopsy.
- To assess the effectiveness of PCR in identifying subclinical leprosy infections among contacts of leprosy patients, particularly those within the borderline and lepromatous spectra.

Materials & Methods:

Study Design: Prospective observational study.

Study Setting: The study was conducted at the leprosy clinic of a tertiary care hospital in New Delhi.

Study Population: Patients presenting to the leprosy clinic with symptoms suggestive of leprosy, including nerve tenderness, anesthesia/hypoesthesia, with or without cutaneous lesions. Contacts of leprosy patients, particularly those within the borderline and lepromatous spectra.

Results:

Total Patients Undergoing PCR Testing: 47

PCR Test Results:

Positive: 24 patients

Negative: 10 patients

Contacts of Borderline and Lepromatous Leprosy Patients: Positive: 13 contacts

Distribution of Positive PCR Results Among Different Leprosy Spectra:

Pure Neuritic Leprosy: 11 patients

Tuberculoid Leprosy: 8 patients

Borderline Tuberculoid Leprosy: 5 patients

These findings suggest that PCR testing holds promise as a diagnostic tool for leprosy, with a significant number of patients testing positive for M. leprae DNA. Additionally, PCR testing appears to be effective in detecting subclinical infections among contacts of leprosy patients, as evidenced by the positive results among contacts of borderline and lepromatous leprosy patients. The distribution of positive PCR results among different leprosy spectra highlights the utility of PCR in diagnosing various clinical forms of leprosy, including pure neuritic, tuberculoid, and borderline tuberculoid leprosy.

Conclusion:

The findings of this study underscore the potential of Polymerase Chain Reaction (PCR) as a valuable tool for the early diagnosis and detection of leprosy, particularly in cases where traditional diagnostic methods such as slit skin smear and biopsy yield negative results. The results demonstrate a significant number of patients testing positive for Mycobacterium leprae DNA through PCR testing, indicating the presence of the pathogen even in cases with few or no cutaneous lesions. Moreover, PCR testing proves effective in identifying subclinical infections among contacts of leprosy patients, highlighting its utility in targeted screening and early intervention efforts.

A father-son duo with sweet's syndrome-like type 2 reaction in lepromatous leprosy, an extreme rarity

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Introduction & Objectives:

Atypical presentations of erythema nodosum leprosum (ENL), a type 2 lepra reaction, have been reported including sweet's syndrome-like ENL, however it is quite rare. Our aim is to report two cases of a father-son duo, presenting with sweet's syndrome-like ENL in lepromatous leprosy (LL).

Materials & Methods:

Detailed clinical history, triggering factors, patient photographs, slit-skin smears, skin biopsy and details of other investigations and treatment received by the patients, were recorded.

Results:

Case 1: A 35-year-old male presented with sudden onset multiple bright-red papules, plaques and nodules over the trunk, arms and thighs for 20 days, with pseudo-vesiculation in some and crusting in others, associated with slight tenderness and without anesthesia. He also had high grade fever and arthralgia. Blood investigations revealed peripheral leukocytosis with neutrophilia and raised erythrocyte sedimentation rate. A provisional diagnosis of Sweet's syndrome was made. Histopathological examination showed dense neutrophilic infiltrates, dermal edema and perivascular neutrophils, along with acid fast bacilli in globi. Based on these findings, slit-skin smear (SSS) was performed which revealed a bacteriological index (BI) of 6+. A final diagnosis of sweet's syndrome-like ENL in LL was given. After an initial course of systemic steroids along with multibacillary multidrug therapy (MBMDT) for a year, complete resolution of lesions was noted.

Case 2: His 16-year-old son presented to us with sudden onset disseminated bright-red painful nodules over the body for a duration of 4 months, associated with fever, arthralgia, neuritis, glove and stocking anesthesia and weakness of both hands. He had one similar episode a few months ago. He received improper treatment (intermittent MBMDT and inadequate doses of prednisolone) from a local practitioner in the past. Blood investigations showed anemia and peripheral leukocytosis with neutrophilia. The BI was 3+ with multiple fragmented bacilli seen on SSS and histopathology was consistent with sweet's syndrome-like ENL. He was started on MBMDT and a short course of systemic steroids. He improved in 3 months and is currently in our follow-up.

Conclusion:

Leprosy is a great masquerader and rare variants should not be missed by the physician. Sweet's syndrome-like ENL in LL occurring in two members of the same family is extremely rare and first to be reported by us, to the best of our knowledge. Genetic profiling of such patients is recommended; however, it could not be performed in our patients due to resource constraints. Gene polymorphisms in diseased individuals may be responsible for the variability in clinical forms and immune responses, possibly suggesting an appropriate modification in drug therapy and follow-up. Certain host genetic markers may predict the potential for occurrence of ENL and quantum of nerve damage.

Protective effects of BCG vaccination against multibacillary disease, reactions, and disabilities in childhood: Insights from a retrospective observational study

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Title of the article: Protective effects of BCG vaccination against multibacillary disease, reactions, and disabilities in childhood: Insights from a retrospective observational study

Introduction & Objectives: While leprosy primarily affects adults, childhood leprosy poses unique challenges due to its potential to cause lifelong disabilities and stigma. This retrospective clinico-epidemiological study studied the clinical patterns, reactions, response to treatment, protective efficacy of Bacillus Calmette-Guérin (BCG) vaccination in childhood leprosy and the presence of persistent skin lesions despite treatment.

Materials & Methods: This was a retrospective record review of all patients aged 15 or below diagnosed with leprosy who were enrolled in the leprosy clinic of the tertiary care center from June 2014 to December 2023. The data was entered in a structured proforma and analyzed using Microsoft excel and statistical software SPSS IBM SPSS Statistics 22.0.

Results: As per hospital records, 1083 leprosy cases were registered at our center during the study period. Of these, 50 (4.6%) were children below the age of 15. Males were more frequently affected, males/females were 34 (68%)/16 (32%) (2.12:1) and the mean age was 10.1±3.2 years. The median duration of symptoms before presentation was 12 months (1 to 96 months range). Persistent skin lesions were seen in 11 (22%) cases out of which the most common spectrum to have these persistent skin lesions was BT (7/11; 63.6%). Among these cases BCG scar was present in 4 (36.4%) patients only, while 7 (63.6) did not have the BCG scar. Overall, BCG scar was noted in 39/50 cases (78%). Out of the total 11 patients without BCG scar (unvaccinated), 5 had BL leprosy, 5 LL and 1 BT leprosy. The relationship between having no BCG scar and multibacillary disease/ LL and BL spectrum came out to be statistically significant (p=0.021). Among the reaction cases, out of 6, only one patient had the BCG scar present (2%). A statistically significant association was found between the absence of BCG scar and having reaction (p<0.01). Among the 11 grade 2 disability cases, 9 cases (all of the BL, LL spectrum) did not have the BCG scar. Again, a statistically significant association between being LL and BL spectrum and not having a BCG scar among grade 2 disability cases was seen (p<0.01).

Conclusion: This study sheds light on the often-overlooked effect of BCG vaccination on clinical patterns of childhood leprosy. Despite advances in healthcare, the burden of childhood leprosy persists, necessitating continued efforts in elimination of leprosy as a public health problem. Further research is warranted to strengthen the evidence of impact of vaccination (BCG/MIP) on patterns of childhood leprosy, its effect on persistent skin lesions and role in prevention of reactions and disabilities and to optimize strategies for its universal application.

A study of correlation of KOH, Dermoscopy and Culture of recalcitrant cases in Katargam area of Surat

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Introduction & Objectives:

Recalcitrant tinea infections, characterized by persistent dermatophytic infection despite appropriate antifungal therapy, pose a significant challenge in clinical management. The involvement of trichophyton mentagrophytes in such infections has been suggested as a potential marker. This study aimed to investigate the prevalence of T. Mentagrophytes in Katargam area of Surat city as a marker for recalcitrant tinea infections using dermoscopy, KOH mount, and culture techniques.

Materials & Methods:

A prospective study was conducted at the Department of Dermatology, Venereology, and Leprosy, spanning from November 2023 to Jan 2024. All patients presenting with Tinea Faciei, Genitocrural tinea, and recalcitrant tinea infections were included, totaling a sample size of N>=500. Informed consent was secured from all participants. Detailed medical histories were recorded, and clinical photographs were taken. Dermoscopy of classical tinea plaques was performed, followed by scraping of lesions for KOH mount and culture. Statistical analysis was conducted using descriptive statistics, Z-test for proportion, and chi-square test for association

Results:

The study identified a significant association between T. Mentagrophytes and recalcitrant tinea infections. Dermoscopic examination, KOH mount, and culture of scrapping yielded consistent results in diagnosing these infections.

Conclusion:

The findings of this study underscore the importance of type of fungus prevalance as a marker for recalcitrant tinea infections. Utilizing dermoscopy, KOH mount, and culture techniques can aid in the early identification of such cases, allowing for prompt intervention to enhance therapeutic efficacy and reduce the incidence of persistent dermatophytic infections. This study contributes to the advancement of clinical strategies in managing recalcitrant tinea infections, ultimately improving patient outcomes and reducing disease burden.

Disseminated Herpes Simplex in Chronic Lymphocytic Leukemia

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Introduction & Objectives:

Immunosuppression can be acquired or congenital. Immunocompromised patients are at risk for acquiring rare infections as well as widespread and atypical manifestations of common infections. The following is a case report of an atypical cutaneous presentation of herpes zoster infection occurring in an immunocompromised patient who presented to the Regional Dermatology Training Centre (RDTC), at KCMC.

Materials & Methods:

A 62-year man presented to RDTC clinic with severe painful blisters for 1 week that started on the right arm, spreading to the forearms, face, scalp and later on trunk, genital areas and partly lower limbs, associated with fever. He had been evaluated several days earlier at a peripheral health facility for an eruption of erythematous blisters where he received oral and IV antibiotics with no improvement. Past medical history reports of history of painless lymph node swelling at the back of the neck 2 years ago which subsided after medication and recurred 1 year later, the swelling was progressively increasing in size and spreading at different parts of the body, no history of night sweats, no fever but reports of weight loss (loose clothing), no difficulties breathing but has history of recurring chronic cough. He was ill-looking on presentation, mild pallor, not jaundiced, not cyanosed, with generalized non-tender mobile smooth not matted lymphadenopathy (occipital, periauricular, submandibular, submental, cervical, axillary and inguinal). On physical examination, the patient had generalized blisters with erythematous papules and with some areas overlying crusting, involving scalp, face, trunk, upper extremities with mildly affected lower limbs.

Results:

- **CBC:** leucocytosis of 314.58 X10^9/l (normal range 4.00 11.00) (29 times raised) predominantly lymphocytes.
- Peripheral blood smear:
- Red cell morphology: normocytic normochromic red cells, anisocytosis
- White cell morphology: marked leucocytosis, with marked lymphocytosis with lymphocytes of moderate size, scant cytoplasm with clamped chromatin, and smudged cells seen.
- Platelet Morphology: reduced, no clumps.

Features suggestive to chronic lymphoproliferative neoplasm (CLL)

• Lymph node biopsy:

Showed a section of capsulated lymph node with effaced nodal architecture by a diffuse solid lymphoid tumour consisting of medium sized lymphoid cells with indistinct cytoplasm, round vesicular nucleus and prominent nucleoli. Abnormal mitosis seen. there are dilated sinuses. Suggestive of Lymphoma.

DDX: CLL (Chronic lymphocytic lymphoma).

Waiting for CD20, CD3 immunohistochemistry.

- Tzanck smear: Numerous multinucleated giant cells consistent with herpes viral infection were identified.
- Renal and liver function were normal
- Glycated haemoglobin was in normal range.
- Skin biopsy: showed epidermal necrosis and scattered keratinocytes with viral cytopathic changes
- DIF was done and negative for IgG, IgA and C3

Conclusion:

Disseminated herpes simplex virus in an immunocompromised host was diagnosed. The patient received treatment Acyclovir 800mg QID, IV Ceftriaxone 1g BD and Metronidazole 400mg TDS for 7 days, with lesions drying up, switched to Acyclovir 400mg BD 1/12 with oral Amoxyclav 625mg BD and on follow-up with haematologist after completing IHC results.

Subcutaneous mycoses: endemic but neglected among the Neglected Tropical Diseases in Ethiopia

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Introduction & Objectives:

Subcutaneous (deep) mycoses are a chronic infectious disease of the skin and underlying structures endemic in tropical countries. The disease has serious medical and socioeconomic consequences for patients, communities and health services in endemic areas. The inclusion of mycetoma and other subcutaneous mycoses in the list of Neglected Tropical Diseases by WHO highlights the need to assess the burden of these diseases and establish control programs where necessary. In Ethiopia no strategies can be devised because of a lack of epidemiologic information. To address this evidence gap, we performed a national rapid assessment of the geographic distribution of subcutaneous mycoses

Materials & Methods:

We conducted a rapid retrospective assessment using hospital records to identify all suspected and confirmed cases of subcutaneous mycoses in 13 referral hospitals across the country between 2015 and 2022. In each hospital the logbooks were reviewed for diagnoses of subcutaneous mycosess, as diagnosed per routine practice. Descriptive analysis was done

Results:

From 13 hospitals we extracted 143 cases of subcutaneous mycoses, registered from July 2018 to September 2022. 118 (82.5%) patients were diagnosed as mycetoma, 21 (14.7%) as chromoblastomycosis and the remaining 4 (2.8%) as sporotrichosis. The mean age of patients was 35.8 years (SD = 14.5). 101 (70.6%) patients were male and 96 (67.1%) patients were farmers. 64 (44.8%) cases were from the Tigray regional state. 56 (65.9%) patients had information on diagnostic microscopic evaluation: for mycetoma histopathologic evaluation and fine needle aspiration cytology had a higher positivity rate while for chromoblastomycosis potassium hydroxide (KOH) staining had a better yield. The main clinical presentations were nodules, sinuses and infiltrative plaques on the skin. Radiologic findings of bone involvement was present in some.

Conclusion:

Mycetoma and other subcutaneous mycoses are endemic in Ethiopia, with cases reported from almost all regions with the highest cases numbers reported from the northern part of

the country. A routine program and systems should be developed to identify and document the burden of subcutaneous fungal infections in the country. Diagnosis and treatment guidelines should be developed.

proportion and characteristics of demodex positivity among patients with facial dermatoses attending dermatology clinic in northern tanzania

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Introduction & Objectives: Two Demodex mite species are normal human flora, *Demodex folliculorum* and *Demodex brevis*. They are found in body regions with high sebaceous activity. Although Demodex mites are normal flora, higher densities of these mites* have been implicated in many chronic inflammatory facial dermatoses, thus worsening clinical symptoms. Patients with facial dermatoses are rarely investigated for Demodex infestation in our setting.

Materials & Methods: A descriptive cross-sectional study was conducted among 201 patients (46 males and 155 females) with facial dermatoses who met the clinical criteria for a diagnosis at the dermatology clinic. Information from the participants was collected using demographic and clinical data sheets. A sample on the face was collected using two standardized surface skin biopsy techniques on the same site for microscopy observation of the mites.

Results: The proportion of patients who were positive for Demodex mites was low in seven participants (3.5%). More mites were yielded in the second standardized surface skin biopsy than in the first, which was significant. Of the participants with *Demodex* positivity, only one had Rosacea, two had atopic dermatitis, and four had acne. Despite other insignificant assessed variables, all patients were female, ranging from 21 - 40 years old. All the participants who had Demodex mites reported having frequently washed their faces with a cleanser but denied using cosmetic products.

Conclusion: Demodex positivity was low in our setting. Further studies need to be done on the skin of color patients with facial dermatoses to ascertain differences in the Demodex mite population.

dermatologic presentation of covid-19 in a young female

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Introduction:

Coronavirus (SARS-CoV-2) is the cause of the novel coronavirus disease of 2019 (COVID-19), resulting in more than 3.8 million infected patients worldwide [1]. While most patients experience respiratory complaints such as nasal congestion, cough and shortness of breath, some patients may present without any pulmonary symptoms [[2], [3], [4]]. As the disease progresses, the literature has described involvement of other organ systems, including the cardiovascular, gastrointestinal, renal, and neurological systems. Recently, dermatologic complications of COVID-19 have been increasingly recognized.

Case:

A 14-year-old female patient presented to us with complaints of erythema, rash and pruritus on the feet. On examination, there were pustular lesions on erythematous ground and excoriated areas on the heel. The toes had a xerotic and squamous appearance. Nativ preparation was taken and found to be negative. When questioned, the patient described mild sore throat. PCR test was ordered considering that the rash might be a complication due to covid-19. Covid test detected as positive.



The patient was consulted to Infectious Diseases for covid treatment. Treatment for covid was started.

Dermatologically, short-term topical steroid and moisturizer were prescribed. After 1 month, she was called for a follow-up visit. At the follow-up visit, the covid test was negative and the lesions had regressed.



Discussion & Conclusion:

Dermatologic findings such as pernio-like, erythematous papular, erythematous macular, urticarial morbiliform, varicellaform, papulosquamous lesions, petechial eruptions, livedo reticularis-like erythema, purpuric lesions, acroischemic lesions, retiform purpura are documented with Covid infection (5). Similar to other viral exanthems, it has been reported that morbiliform rashes are often pruritic and, on the trunk, pernio-like lesions are often characterized by pain and burning in the acral regions, especially in the feet, and varying in color from red to violet, vesicular lesions are more common in middle-aged patients and mildly pruritic lesions on the trunk, and retiform purpura are seen on the extremities and buttocks. Although rashes last for 7-10 days, it is known that pernio-like rashes last for an average of 14 days. (5) Dermatologic findings after COVID-19 may sometimes be atypical and may be confused with other skin diseases. This can complicate diagnosis and hinder the determination of appropriate treatment strategies. This can significantly impact our clinical practice. Patients with a history of COVID-19 should especially increase the frequency of dermatologic examinations and strengthen their ability to recognize atypical findings. In conclusion, the recognition and management of dermatologic manifestations after COVID-19 is a complex process that requires a multidisciplinary approach. In this process, early recognition and effective management of accompanying findings is important to improve the prognosis of patients and prevent complications. Therefore, skin examination and monitoring of dermatologic findings should be a routine practice in patients diagnosed with COVID-19.

Molluscum contagiosum: descriptive study.

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Introduction & Objectives: Molluscum contagiosum is a benign and highly contagious infectious dermatological disease caused by the genus Molluscipoxvirus of the Poxvirus family. It frequently occurs in children, sexually active adults, and immunosuppressed patients. The estimated prevalence in children is 7% and rises to 18% in immunosuppressed adults. The transmission of this virus is carried out by direct contact, fomites or by autoinoculation, and manifests clinically in the form of umbilicate cupuliform papules of the color of the skin, generally asymptomatic. There are various treatments, however, the most used is curettage. The objective of the study was to evaluate the cases seen in our service, analyze the epidemiological data, comorbidity and the treatment used.

Materials and methods: Observational, cross-sectional and single-center study, carried out in a period that spanned from March 1, 2020 to March 1, 2023, where patients with a clinical diagnosis of molluscum contagiosum were included, in each case the following data were collected: sex, age, atopy, comorbidity, pool attendance, number of injuries and treatment. The data were incorporated into a Microsoft Excel 365 spreadsheet and subsequently analyzed with STATA version 16.0 statistical software. Non-parametric statistics were used to describe the variables, the Mann-Whitney U was applied to compare the means, and the χ^2 test was performed to evaluate independent variables.

Results: 59 patients were analyzed, of which 56% (n=33) were male, the median age was 13 years (minmax: 1-68 years). 39% (n=23) of the study population was 10 years old or younger. 85% of the population (n=51) had multiple injuries, with no significant difference by age or sex. There were no significant differences in comorbidity when grouping the affected population by sex, however, there was a trend towards a greater presence of autoimmunity in women. The presence of allergic asthma was greater in children, not present in adults, being statistically significant (p < 0.05) and in adults metabolic diseases predominated, being statistically significant (p < 0.05). Regarding treatment options, curettage was the first-line treatment equally for both groups (adults and children under 18 years of age), cryotherapy was performed more in adults, and the administration of salicylic acid with lactic acid was the most used in children., both had statistically significant significance (p < 0.05). On the other hand, the application of glycyrrhizinic acid was greater in men, being statistically significant (p < 0.05).

Conclusion: Children with atopic dermatitis and allergic asthma present molluscum contagiosum more frequently, on the other hand, in adults metabolic diseases predominated (diabetes mellitus, systemic arterial hypertension and chronic kidney disease), in women autoimmune diseases predominated (lupus erythematosus systemic, rheumatoid arthritis, Hashimoto's disease and autoimmune hemolytic anemia). The most used therapeutic option was curettage, followed by the administration of salicylic acid with lactic acid in children and imiquimod and cryotherapy in adults.

tuberculous dactylitis: a rare case of cutaneous tuberculosis

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Introduction & Objectives: Tuberculosis is a common infection caused by Mycobacterium tuberculosis in developing countries. Cutaneous Tuberculosis is an unusual extrapulmonary form and it has various clinical manifestations, among which tuberculous dactylitis is extremely rare.

Materials & Methods: we report the case of a patient diagnosed with tuberculous dactylitis

Results: A 39-year-old patient with insulin-treated diabetes. Hospitalized in cardiology on suspicion of infective endocarditis, ruled out by blood culture and echocardium. For one month, she presented with an erythematous-violaceous placard with a collection topped by ulceration, a painless purplish nodule on the cold 5th finger, and erythema nodosum on the left leg. The patient also reported night sweats and a 13 kg weight loss in 2 months.

The patient's workup yielded positive results on infectious testing, with a white blood cell count of 12320, ESR at 120, and CRP at 144. A hand X-ray revealed no abnormalities. Because of the hand lesions, a biopsy was performed, showing epithelioid and giganto-cellular granulomatous inflammation with the beginnings of caseous necrosis in favor of tuberculosis infection. A chest X-ray was performed in search of a pulmonary localization, which was normal. The diagnosis of tuberculous dactylitis was accepted. Tuberculous dactylitis, a rare clinical condition typically seen in children below 5 years of age, is often mistaken for a soft tissue tumor or chronic osteomyelitis. This can lead to expansion and destruction of bone with subsequent soft tissue swelling and painful, fusiform enlargement of the involved digit. In this case, bones and joints were preserved

The patient was put on anti-tuberculosis treatment for 6 months, with controlled healing using hydrocolloid patching, with good improvement of the lesions

Conclusion: Tuberculosis dactylitis can often go unnoticed for extended periods, allowing for the potential spread of the disease before diagnosis. While antituberculosis treatment is successful, the ultimate functional outcome hinges on timely detection.

Primary cutaneous actinomycosis: Unraveling the Diagnostic puzzle

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Introduction & Objectives:

Actinomycosis, a rare granulomatosis infection caused by anaerobic bacteria Actinomyces, typically manifests in deep tissues, with primary cutaneous involvement being particularly uncommon. Diagnostic challenges abound, often leading to misdiagnosis due to its resemblance to inflammatory, malignant, or pyogenic processes. Biopsy and microbiological culture provide definitive diagnosis, with magnetic resonance imaging (MRI) featuring a highly specific sign known as "Dot-in-circle" aiding in diagnosis.

Herein, we present a case of a primary cutaneous actinomycosis in a young male, emphasizing the importance of recognizing and accurately diagnosing in this condition.

Case description:

A 24-year-old-man without significant medical or surgical history, with a painless soft tissue swelling of his left foot, gradually increasing over the past year. Physical examination revealed an indurated, nonfluctuant, erythematous papulonodule on the dorsal and plantar aspects of the left foot. Biopsy revealed a dense mixed infiltrate partially filling the reticular dermis and subcutaneous fat with filamentous bacteria highlighted by Periodic acid-Schiff (PAS) and Grocott's methenamine silver (GMS). Gram-positive and acid-fast negative organisms were identified. MRI demonstrated lesions involving the subcutaneous and muscular planes of the left foot dorsal and plantar aspects and multiple small cystic areas with central hypointensity, suggestive of the "dotin-circle-sign". CT scan confirmed bony osteolytic areas and showed periosteal reaction. Given the clinical, histopathologic and imaging findings, actinomycosis was diagnosed.

Treatment involved surgical excision with intratendinous antibiotic infiltrations compromising Amoxicillin/Clavulanate and Gentamicin. Post-operatively, he received 12 weeks of beta-lactam antibiotic, resulting in significant resolution of the swelling upon 3-months follow up evaluation. The patient remains under follow-up care.

This case highlights the crucial roles histopathology and imaging findings play in diagnosis and prompt therapy.

Conclusion:

A diagnosis of actinomycosis is to be considered in the list of differential diagnosis for patients with long-standing, painless swelling of the extremities from endemic areas.

The "Dot in circle" sign is a characteristic MRI finding for the diagnostic of actinomycosis. So the MRI can lead to early diagnosis as well as assess the extent of the disease thereby aiding in the initiation of appropriate therapy.

Treatment with AMX/CLV acid showed efficacy in the management of actinomycosis with cutaneous involvement.

Leprosy with multisystem involvement: Two cases report

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Introduction & Objectives:

Leprosy is a chronic granulomatous disease caused by infection with *Mycobacterium leprae*. As in other countries, leprosy has become rare in Morocco.

Materials & Methods: Herein, we report two cases of delayed diagnosis of leprosy in two male patients with multisystem involvement.

Results:

Case1: A 48-year-old male patient presented with generalized pruritic infiltrated plaques associated with paresthesias of the limbs, evolving for 3 years. Physical examination revealed a leonine facies, depilation of the eyebrows, and erythematous infiltrated plaques on the trunk and limbs, associated with amyotrophy of the dorsal muscles of the hands and hypoesthesia of the lower limbs. Bacteriological sampling of the ear lobe was positive, with a bacteriological index of Hansen's bacillus of 4 crosses. The skin biopsy revealed epithelioid granulomatous dermatitis without caseous necrosis. The electromyogram (EMG) showed a sensitive polyneuropathy in all four limbs. A facial CT scan showed a thinning of the nasal septum with bone lysis. Ophthalmological examination showed sequelae of uveitis. Hand and foot X-rays showed diffuse osteoporosis with bone erosions. As the patient had multibacillary leprosy, the WHO recommended a treatment regimen based on dapsone, clofazimine, and rifampicin that was administered.

Case 2:

A 63-year-old male patient presented with infiltrated plaques of the face, hypoesthesia of the feet, and ulceration of the left foot associated with paresthesias of the limbs, all of undetermined chronic course. Physical examination revealed infiltration of the face and ears with papules and scales, achromic macules on the trunk, and an ulcer of the dorsal surface of the left foot with acro-osteolysis of the fingers and toes. Bacteriological sampling of the ear lobe was positive, with a bacteriological index of Hansen's bacillus of 4 crosses. A skin biopsy of the ulcer showed polymorphic granulation tissue. The EMG showed multiple axonal mononeuropathies. A facial CT showed a defect in the nasal septum, and X-rays of the hands and feet revealed osteolytic lesions. A diagnosis of multibacillary leprosy was established, and the patient received polychemotherapy combining dapsone, clofazimine, and rifampicin.

Discussion:

Leprosy, or Hansen's disease, is a chronic infectious disease caused by the acid-fast rod Mycobacterium leprae.

According to the World Health Organization (WHO), individuals with one of the following three features have leprosy: (i) definite loss of sensation in a pale (hypopigmented) or reddish skin patch; (ii) a thickened or enlarged peripheral nerve with loss of sensation; and (iii) the presence of acid-fast bacilli in a slit-skin smear.

In 2000, the WHO declared leprosy to be completely eradicated. The disease shows polar clinical forms depending

on the patient's immune response to M. leprae, as well as other intermediate forms.

The WHO recommended the use of dapsone and rifampin for tuberculoid leprosy and in combination with clofazimine for managing the lepromatous disease. The combination and duration of treatment vary according to the type of leprosy.

The peculiarities of our observations were the long duration of disease evolution before correct clinical diagnosis, the multi-system involvement, and the severe deformity of hands and feet, which is evidence of the long duration of evolution.

Conclusion:

The physicians should be vigilant in screening, treating, and reporting new active cases of leprosy.

Herpes zoster on surgical scar, what correlation? about 3 cases.

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Introduction & Objectives:

Herpes zoster is an acute posterior ganglioradiculitis which corresponds to a reactivation of the varicella-zoster virus, which has remained latent in the nerve ganglia, exceptionally secondary to a new exogenous exposure to the virus. Its incidence seems to be increasing recently. Three cases of herpetic activation on surgical incision after an operative procedure at different intervals are reported in this clinical series.

Clinical cases:

We report the cases of three patients, a 58 years old's man, a 57 years old's woman and a 3 years young child, treated surgically by posterolateral thoracotomy, for secondary spontaneous pneumothorax and tuberculous pleurisy, as for the child, she underwent enucleation after retinoblastoma; having presented at 2 years, 5 and 6 months after surgery, at the level of the dermatome affected by the surgery, a unilateral rash, stopping at the midline, like an erythematous plaque, dotted with vesicles, grouped in a bouquet.

The diagnosis of intercostal zoster and ophthalmic zoster was made clinically based on the characteristic semiological appearance in the three patients.

In the first two cases, the treatment consisted of a course of valaciclovir 1g, 3 times daily, for 1 week, and for the child, she was treated with aciclovir 15mg/kg/8h for 10 days with good clinical progress.

Discussion:

Herpes zoster corresponds to a reactivation of the varicella zoster virus that remains latent in the nerve ganglia.

The mechanism of viral reactivation is multifactorial: local inflammation, operative microtrauma, and patient stress seem to constitute contributing factors.

In the literature, local trauma is described as a triggering factor for reactivation; we put forward as physiopathological hypotheses the effect of the trauma caused by costal retraction as well as the performance of intercostal nerve blocks intraoperatively.

In the literature, some cases of reactivation following spinal surgery and a subciliary incision but also after liver biopsy have been described, however the correlation between surgery and herpes zoster is still not clearly established.

Conclusion:

The correlation between herpes zoster and surgical wounds has not yet been established and few cases have been reported in the literature. Our study is the first to report herpes zoster on thoracotomy and enucleation.

Studies on the subject are few in number and all agree that the occurrence of these complications remains rare. However, the phenomenon exists and it is important to know it.

Kaposi varicelliform eruption in patients with Darier's disease: a rare complication of a rare disease

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Introduction & Objectives:

Darier's Disease (DD) is a rare genodermatosis with autosomal dominant transmission, characterized by a loss of adhesion between epidermal cells and abnormal keratinization. It may be associated with bacterial but rarely viral infections. Kaposi's varicelliform eruption (KVE) is a secondary herpes simplex virus (HSV) infection that affects patients with an underlying dermatosis. Association with DD has rarely been reported in the literature.

Materials & Methods:

We report two cases of KVE in patients with DD.

Results:

Case 1: A 22-year-old patient presented with a vesiculopustular rash of the face that had been evolving for a week. Physical examination revealed a papulovesicular necrotic rash on the face and neckline as well as brownish keratotic papules on the breasts and lumbar region. The nails were striated with longitudinal bands alternating with white ones. The diagnosis of KVE on DD was suspected. The Tzanck smear indicated HSV infection, and biopsy of a keratotic papule showed acantholytic dyskeratosis. The patient was successfully treated with intravenous acyclovir for five days.

Case 2: A man in his sixties with a several-year history of DD presented with fever and a sudden vesicular rash on his face, trunk and extremities. The rash had started three days previously. The patient had not taken acitretin for a month. Physical examination showed red-brown hyperpigmented hyperkeratotic papules and numerous vesicles on the face, trunk and arms. The diagnosis of KVE was confirmed by the detection of herpetic giant cells in the Tzanck smear. The patient was started on high dose of intravenous acyclovir with gradual improvement of his eruption.

Conclusion:

Patients with DD are prone to superinfections, including KVE. It is thought that a defect in cell-mediated immunity may contribute to this predisposition. KVE, often misdiagnosed as impetigo, can be serious and potentially fatal. It should therefore not be overlooked.

herpes zoster in a 5-month-old immunocompromised infant : a rare case report

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Herpes zoster in a 5-month-old immunocompromised infant: A rare case report

Introduction & Objectives:

Primary infection by Varicella-zoster virus (VZV) causes varicella, and reactivation produces segmental eruption known as Herpes zoster. Clinical presentation of vesicular skin lesion in dermatomal distribution strongly suggests toward diagnosis of VZ.

VZV reactivation in infancy and childhood is uncommon even after primary varicella infection, especially before one year of age. Forms in immunocompromised children can be life-threatening and require specific treatment.

Materials & Methods:

We report a rare case of HZ in a 5-month-old immunocompromised** infant without prior history of varicella or its exposure in the baby and mother during or after pregnancy

Results:

A 5-month-old hypotrophic infant with a history of prematurity at 34 weeks' amenorrhea, hospitalized in the pediatric department for bronchiolitis, who had presented with asymptomatic skin lesions for 03 days. Dermatological examination revealed vesicles grouped in clusters with a bilateral metameric arrangement along the L1 metamer. Vesicles were present over erythematous base and contained clear fluid. The rest of the somatic examination was normal. Maternal TORCH profile done during pregnancy was negative. There was no history of maternal varicella during the pregnancy nor varicella-like rash in the child previously. We could not get antibodies done in the child or the mother due to financial constraints. The diagnosis of herpes zoster was made on the basis of the typical clinical presentation. On investigation, Human immunodeficiency virus (HIV ELISA) screening was positive. Given the immunosuppressed state of the infant, he was treated with intravenous acyclovir at the dose of 10 mg/ kg/8h for ten days. The infant showed significant improvement with lesion healing observed within a week.

Conclusion:

This case highlights the importance of considering Herpes zoster in immunocompromised** infants, even in the absence of a history of VZV infection, especially when presenting with characteristic dermatological findings. Timely diagnosis and initiation of antiviral therapy are crucial in managing neonatal herpes zoster, particularly in immunocompromised infants.

Uncommon Complication of Herpetic Infection: A Literature Review of Neurogenic Bladder in Herpes-Zoster

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Introduction and Objectives: Herpes Zoster (HZ) is caused by the varicella virus after reactivation of the disease in ganglion roots and may be recurrent. Due to the infrequent involvement of the lumbosacral dermatomes, it can rarely affect the lower urinary tract and cause acute urinary retention. Commonly, the neurogenic bladder (NB) due to HZ has a favorable prognosis, with resolution within 4–10 weeks. However, this abstract reports a case with acute kidney injury (AKI) in order to highlight the updated diagnosis and management, given the scarcity of publications related to the topic. A 66-year-old male patient, treated for prostatic hyperplasia, with current lumbosacral HZ, complained of prostate irritation symptoms, being prescribed ketoprofen and levofloxacin. The patient developed lethargy, gait ataxia, intrinsic and post-renal acute kidney injury (AKI) (basal creatinine 1,15 vs 11 mg/dL) due to bladder areflexia and drug nephrotoxicity. Renal and bladder ultrasounds were performed, revealing a dilated bladder and bilateral hydronephrosis. The treatment of HZ was concluded. He was discharged from the hospital after 7 days of hospitalization, with intermittent catheterization and no skin lesions.

Materials and Methods: For literature research the platforms *PubMed*; *Latin American and Caribbean Literature in Health Sciences (LILACS)*; *Scielo*, and *Cochrane Library* were used. The associated keywords were *'neurogenic'*, *'bladder'*, and *'herpes'*. The inclusion criteria were case reports, meta-analysis, and systematic reviews published between 2000 and 2023 referring to human adults.

Results: The results were *PubMed* (n = 10), *LILACS* (n = 2), *Scielo* (n = 0), and *Cochrane* (n = 2), and those that did not cover the topic were excluded from the selection, totaling 7 publications. According to the selected literature, the symptoms in patients with HZ that indicate NB are acute dysuria, incontinence, frequency and urinary urgency. It is extremely important to preserve kidney function with intermittent catheterization and avoid urinary infections in patients at risk. Urological and neurological examinations must be carried out, as well as urinalysis, creatinine, ultrasound of the kidneys and urinary tract, and urodynamic study. Treatment must prevent AKI, use of antiviral, analgesic, antibiotic and anticholinergic drugs; intermittent catheterization, in strict cases indwelling catheters or cystostomy and physiotherapy.

Conclusion: It is important to reduce the time of diagnosis, manage the clinical condition in order to prevent AKI and minimize negative impacts of HZ causing NB.

Physical urticaria test and management

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Introduction & Objectives:

Physical urticaria is a frequent entity of chronic urticaria whose prevalence is still unknown and which is characterized by the appearance of plaques or papules and/or angioedema after exposure to an external physical stimulus requiring provocation tests for their diagnosis.

The aim of our study is to illustrate the epidemiological and clinical profile of this entity as well as the interest of standardizing the physical tests in the Moroccan population in order to allow an adequate management.

Materials & Methods:

56 cases of chronic urticaria were collected in our group and underwent physical provocation tests for the different types of physical urticaria.

Results:

The average age of our patients was 37.5 years with a female predominance. The average duration of evolution of physical urticaria was 38.5 months. The interrogation revealed that 51 cases had a triggering factor, 10 cases had a notion of atopy, 14 patients having benefited from a biological assessment. In 35 cases the reaction was localized (pruritus, papules, plaques) at the site of stimulation while 11 cases had a generalized response (diffuse cutaneous-mucosal), only one case reported systemic signs, 24 cases were under treatment before their 1st consultation. The physical test was performed in all our patients, Pressure urticaria was the most frequent with a rate of 48.2%, followed by dermographism at 34.5%, cholinergic at 17.2%, heat 13.8%, cold 6.9%. No cases of vibratory, solar or aquagenic urticaria. 23 of our patients had the combination of more than two types of physical urticaria. Nevertheless, no serious adverse events were recorded during the tests. In our study, all patients were initially treated with 2nd generation antihistamines in single dose (1 tablet per day) in first intention and then in double dose in 54.3% of cases.

Conclusion:

Although the eviction of the stimulus and the recourse to antihistamines H1 of 2nd generation constitute the pillars of treatment, the risk of recurrence or association with other types of urticaria in particular the idiopathic urticaria always remains possible making complex the psychic and therapeutic management.

Disseminated Cutaneous Leishmaniasis in a Patient Treated with Infliximab

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Introduction:

We present a 67-year-old male with a history of Crohn's Disease, under treatment with infliximab and azathioprine for 6 years, who presented to the Emergency Department with three pruritic lesions of 5 months duration, progressively increasing in size.

Dermatological examination revealed erythematous nodules with inflammation and ulceration on the upper limb, left pectoral region, and left ear helix. Biopsy of the pectoral lesion showed intense chronic lymphohistic inflammatory reaction with plasma cells and presence of leishmania. PCR and serology confirmed leishmaniasis. Despite no systemic symptoms, blood tests showed no visceral involvement.

Following diagnosis of disseminated cutaneous leishmaniasis, infliximab was discontinued, and treatment started with local meglumine antimoniate infiltrations and intravenous amphotericin B. However, acute renal failure due to ischemic-toxic acute tubular necrosis led to treatment discontinuation. Subsequently, the patient underwent 6 weekly sessions of intralesional antimonials with cryotherapy, resulting in lesion resolution.

Discussion:

Leishmaniasis, caused by protozoa of the genus Leishmania, presents with varied clinical manifestations, from limited cutaneous to systemic forms. Host Th1 response, including TNF-alpha and IL1, influences the clinical spectrum. TNF inhibitors increase the risk of opportunistic leishmaniasis, with antibodies (adalimumab, infliximab) showing higher risk than etanercept.

Host susceptibility dictates disease severity, with immunocompetent patients showing small single cutaneous lesions responsive to meglumine antimoniate infiltrations, while immunocompromised individuals exhibit disseminated cutaneous involvement.

Initial management involved discontinuing biological therapy and initiating systemic treatment. Recent studies, however, found no difference in treatment response irrespective of modifying biological therapy, suggesting its maintenance does not interfere with leishmaniasis treatment.

Conclusion:

In conclusion, TNF inhibitors not only heighten the risk of opportunistic leishmaniasis but also increase the risk of disseminated cutaneous involvement. Evaluating the immune response and weighing the risk-benefit of discontinuing biological therapy are crucial considerations.

Profuse scabies in a four-week-old newborn

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Introduction & Objectives:

The profuse form of scabies is characterized by the extent of the rash, its highly contagious nature, and its occurrence in immunocompromised individuels. It is rare in immunocompetent infants. Few treatments are available for children weighing less than 15kg. We report the case of a 4-week-old girl with profuse scabies successfully treated with Benzyl Benzoate alone.

Case report:

It was a four-week-old girl, born in full-term, with a history of recurrent episodes of chest wheezing and scabies in her mother during pregnancy. She presented with a diffuse pruritic rash that had been evolving for 03 days. Clinical examination revealed an irritable infant with good growth in height and weight. Dermatologically, we found erythematous and papulo-nodular scaly, crusted and impetiginized lesions. Those lesions covered the entire tegument, and were accentuated at the palmoplantar level. Dermoscopic examination led to the diagnosis of scabies, revealing several delta signs and the presence of numerous curvilinear furrows. The history supported the diagnosis, as it revealed a history of nocturnal pruritus in the family. The infant treated with Benzyl Benzoate diluted to 50%. All family members living in the same household were treated simultaneously, with disinfection of the environment. The evolution was marked by a complete disappearance of the lesions

Discussion:

Profuse scabies is a severe form of the disease, with a very high parasite load at epidermal level, comprising hundreds or even thousands of parasites per individual. This condition is most frequently found in the elderly or immunocompromised, but rarely in young children, particularly those with immunocompetence. Typically, pruritus may be minimal or absent, which was not the case in our patient. Clinically, the rash is generalized, vesicular, papulo-nodular and diffuse, not sparing the face in infants and becoming more pronounced on the palms and soles. The notion of nocturnal pruritus in the family and dermoscopy, in addition to the scotch test, enable a definitive diagnosis to be made. Therapeutically, while Permethrin is only authorized for use from 02 months of age, Benzyl Benzoate can be used on newborns from 01 month of age, with a reduced application time. For forms resistant to local treatment, several trials of Ivermectin at a dose of 0.2mg/Kg have been carried out, with satisfactory results and no serious effects reported. Further studies are needed to support the safety of its use.

Conclusion:

Scabies is a global public health problem, and we need to be aware of the characteristics of each age groupe. It requires early diagnosis and safe, effective treatment, especially in babies, to avoid therapeutic impasses.

Cutaneous leishmaniasis in a patient receiving treatment with upadacitinib.

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Introduction & Objectives:

In cutaneous Leishmaniasis, protozoa (amastigotes) can be observed inside tissue macrophages. Tumor necrosis factor (TNFa) is a key protein in the function of this mononuclear phagocytic system. Up to 50 cases of Leishmaniasis have been described in patients receiving treatment with anti-TNFa drugs along the literature. However, we have not found any reported cases in patients treated with Jak inhibitor drugs, upadacitinib included, as the case we present.

Case report:

A 46-year-old woman, who lived in a rural area, presented with a crusty and ulcerated plaque on her right arm for the last 3 months. She had been treated with leflunomide and adalimumab for at least 5 years because of a diagnosis of rheumatoid arthritis. Adalimumab was replaced by upadacitinib just one month before the dermatology date. A skin biopsy showed granulomatous dermatitis with the presence of intracellular amastigotes, which stained positive for CD1a. Blood test was totally normal (blood count, biochemistry, and proteinogram) and a serology for Leishmania was negative. Liver ultrasound did not show significant findings. With the diagnosis of cutaneous Leishmaniasis, treatment with intralesional meglumine antimoniate every 1-2 weeks was started, with excellent response after 7 infiltrations. No recurrence was observed five months after the end of the treatment.

Discussion:

The first cases of Leishmaniasis in patients treated with anti-TNFa drugs were described in 2004. The review by Catalá et al. (2015) confirmed that patients from endemic areas who receive these treatments have a greater risk of suffering visceral and cutaneous Leishmaniasis, as our case. Furthermore, atypical clinical cases and dissemination are more common, as is the fact that the patient requires systemic treatment because of failure of intralesional therapy. Upadacitinib is a JAK inhibitor drug, approved for the treatment of rheumatoid and psoriatic arthritis, atopic dermatitis and Crohn disease. Infections are frequent among its side effects: respiratory, herpes zoster, even opportunistic (esophageal candidiasis), but, so far, there are no reported cases of Leishmaniasis. In our patient, cutaneous Leishmania emerged in the least favorable situation, when treatment with adalimumab was stablished. The following switch to upadacitinib could have kept Leishmania localized as well as allow the good response to intralesional treatment.

Erythema multiforme following tuberculosis infection: : an extremely rare origin!

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Introduction & Objectives:

Erythema multiforme (EP) is a mucocutaneous syndrome characterized by cocardial lesions associated with mucosal involvement and general signs. It is a hypersensitivity reaction most often secondary to the Herpes Simplex virus or Mycoplasma pneumonia. Erythema multiforme following tuberculosis is an extremely rare entity; we report a new case.

Observation:

A 49-year-old diabetic patient with a recent history of tuberculosis (her husband had been treated for pulmonary tuberculosis and had been on anti-bacillary therapy for 2 months) was admitted to hospital with cocardial and pseudococardial lesions predominantly of the palmoplantar region associated with oral mucosal involvement.

Examination revealed palmoplantar cocardia lesions with a vesico-bullous centre in places. The course of the lesions was marked by coalescence and the formation of erythematoviolaceous palmoplantar sheets topped by desquamation, associated with pseudococardia lesions on the thigh, lateral and inter-mammary region, as well as bilateral oedema of the lower limbs. Mucosal lesions included glossitis, pharyngitis and non-erosive erythematous macules on the palate. Pleuropulmonary examination revealed dullness on percussion and a decrease in vesicular murmur opposite the right hemithorax. Abdominal examination revealed a distended abdomen, dullness on percussion, and positive signs of float and ice cube.

Histological examination revealed spongiotic dermatitis without keratinocyte necrosis or epidermal detachment, which could be classified as erythema multiforme. The hemogram was normal with no hypereosinophilia, and diagnostic and evacuation pleural fluid aspiration revealed an exudative fluid with a non-malignant tuberculoid granuloma on pleural biopsy. The TAP scan revealed Polysérite (pleurisy, pericarditis and copious ascites), hepatosplenomegaly and deep adenopathy.

The patient was treated with topical steroids, emollients and antihistamines, followed by disappearance of the lesions and complete regression of the polykeritis, with gradual reintroduction of anti-bacillary treatment without incident.

Conclusion:

Erythema multiforme is a hypersensitivity reaction linked to multiple infectious agents including viral (dominated by Herpes virus, Varicella zoster virus, Molluscum contagiosum...), bacterial (dominated by Mycoplasma pneumoniae, Chlamydia, Bartonella henselae, alpha haemolytic Streptococci...) or certain vaccines.

Mycosis tuberculosis is one of the rare causes of erythema multiforme.

The particularity of this observation is the diagnostic difficulty between erythema multiforme and antibacillary toxidermia. However, all the clinical, biological and histological data were in favour of a post-tuberculosis infectious origin.

Tinea capitis due to Cladosporium SP: A non-dermatophyte fungi infection

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Introduction & Objectives:

Tinea capitis is a fungal infection not exclusively confined to children; clinical aspects vary according to the pathogenic species involved. The main causes of Tinea Capitis are dermatophytes, while the contribution of non-dermatophytes (NDM) to its pathogenesis is often overlooked.

Materials & Methods:

Results:

We report the case of a 59-year-old female patient referred by her attending physician for skin and scalp lesions. Notion of recent discovery of retroviral infection at AIDS disease stage (pulmonary pneumocystis).

Clinical examination revealed several circinate plaques all over the body with a raised border and clearing alopecia of the scalp with a positive traction sign.

Dermoscopy examination revealed a significant decrease in hair density, with a single hair per orifice, several non-follicular pustules (>5/field), peripillary scales and diffuse scalp erythema. No morphological abnormalities of the hairs were noted.

Two samples were sent for fungal culture and both showed dark brown colonies on the surface and black coloration when viewed from the reverse side. The microorganism was identified by the reference laboratory as Cladosporium species. The conidia were usually noted to be single-celled with a distinct dark hilum. These features were considered to be diagnostic for Cladosporium; however, the laboratory could not identify the organism to the species level.

A treatment with itroconazol was initiated at an oral daily dose of 200 mg for 2 months. Upon re-evaluation, she showed significant improvement with with partial hair regrowth and, most importantly, a decrease of itching.

Cladosporium a dematiaceous saprophytic fungus commonly found in diverse environments, has been reported to cause allergy, and it is a very rare cause of human illness. Studies found the association with infections of the respiratory tract and the central nervous system (CNS) especially in cases of immunodepression.

A few cases of cutaneous infection have been described in the literature (Subcutaneous Phaeohyphomycosis) but no case of cladosporium tinea capitis.

Conclusion:

The particularity of our observation is the dermoscopy, which showed no fungal involvement of the hairs, but rather a pattern of inflammation and non-follicular pustules. To be kept in mind before any dermoscopic examination of the scalp.

Evaluation of Antimicrobial Prescribing for Impetigo: Insights from a General Practice in Remote and Rural England

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Introduction & Objectives:

Impetigo is a contagious skin infection caused by bacteria, primarily seen in children, and is known for its symptoms of honey-colored crusts or fluid-filled blisters (Alotaibi et al., 2021). The National Institute for Health and Care Excellence (NICE) guideline 'Impetigo: antimicrobial prescribing' (NG13) is the foundation for establishing standard care protocols for prescribing antibiotics to treat impetigo in the United Kingdom (UK). All patients with known impetigo should receive appropriate antimicrobial prescribing and advice on good hygiene measures and the treatment of impetigo (NICE, 2020). The aim is to assess the adherence of antimicrobial prescribing and advice on reducing spread and the treatment of impetigo at X01 (a general practice in remote and rural area of UK) to the NG153 for improvement of patient care.

Materials & Methods:

A retrospective audit was conducted at X01 using the Egton Medical Information Systems (EMIS) to identify patients diagnosed with impetigo. The EMIS system was searched using the clinical codes 'Impetigo', resulting in 33 patients. Each record was accessed individually using their EMIS numbers, focusing on consultations marked with 'impetigo' in the consultation tab. The consultation notes were manually reviewed to determine the type and spread of impetigo and to check whether advice on transmission prevention and the treatment was provided. This information was compiled in an electronic spreadsheet. After excluding consultations conducted outside X01, the final cohort for analysis comprised 31 patients.

Results:

On initial treatment of patients with impetigo: 10 out of 31 (32.3%) had been advised about good hygiene measures; 1 out of 31 (3.26%) had correct antimicrobial prescribing; 23 out of 31 (74.2%) had been advised about the treatment. The overreliance on topical and oral antibiotics, as evidenced by the rise in antibiotic prescription rates associated with impetigo treatment, has contributed to the emergence and spread of resistant bacterial strains (Barbieri et al., 2019). Therefore, it is crucial to evaluate the appropriateness of antibiotic prescribing practices, ensuring that antibiotics are used judiciously in accordance with established guidelines, whilst also providing advice on preventing the spread and exacerbation of impetigo to improve patient outcomes and maximise the efficiency of antibiotic use.

Full discussion of the audit will be discussed in main paper where there are fewer space restrictions.

Reassessment of X01 is due next year.

Conclusion:

The treatment of impetigo largely involves antibiotics, which raises concerns about antibiotic resistance and emphasises the importance of adhering to NG153 for treatment in the UK (D'Cunha et al., 2017; NICE, 2020).

In summary, X01 has failed to meet the NG153 adherence standards set in all criteria due to factors such as inadequate consultation documentation, time constraints, and various barriers like lack of agreement, awareness, motivation, and translation of guideline knowledge. The proposed recommendations aim to enhance awareness and knowledge of the guidelines, as well as to improve the efficiency of consultation documentation.

Barriers to Effective Cellulitis Management in a Primary Care Setting: An Audit Report

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Introduction & Objectives:

Cellulitis is a common yet serious bacterial skin infection, primarily treated with antibiotics within healthcare systems such as the NHS. Despite established guidelines like the NICE NG141, which advises on antimicrobial prescribing for cellulitis, challenges persist in adherence due to the condition's non-specific symptoms and the critical need for correct diagnosis and management to prevent severe complications. This audit evaluates the adherence to these guidelines within a primary care setting at X (a general surgery at rural area in the United Kingdom), focusing on the appropriate exclusion of differential diagnoses, antibiotic prescribing accuracy, and the provision of safety netting advice.

Materials & Methods:

A retrospective analysis was conducted, involving a sample of 40 patients diagnosed with cellulitis between December 13, 2022, and December 12, 2023 at X. The audit criteria were based on the NICE guidelines, which include confirming the diagnosis by excluding other causes of skin redness, correctly prescribing antibiotics, and providing safety netting advice. Data were gathered from patient records accessed through the EMIS system and analysed to assess compliance with these criteria.

Results:

Results indicated that the practice did not fully meet the audit standards. Specifically, only 45% of the cases had documented exclusion of other potential causes of skin redness, falling significantly short of the 90% target. Safety netting advice was provided in 72% of the cases, and the correct antibiotics were prescribed in 92% of the instances, which approached but did not meet the respective standards of 90% and 95%. These shortcomings highlighted gaps in clinical documentation and guideline familiarity among healthcare providers.

Conclusion:

The audit's findings suggest that time constraints and incomplete adherence to documentation and safety-netting guidelines are significant barriers. Enhanced training on guideline familiarity and the use of standardised documentation templates are recommended to improve practice adherence. Furthermore, a re-audit is suggested after 12 months to evaluate the effectiveness of the implemented recommendations and to continue improving the management of cellulitis in the primary care setting. This audit underscores the importance of ongoing education and systematic approaches in healthcare settings to uphold high standards of patient care and antibiotic stewardship in the treatment of cellulitis.

Twenty years with a Lupus vulgaris: a case report.

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Introduction:

Cutaneous tuberculosis (TB) is an infectious dermatosis caused by Mycobacterium tuberculosis. Lupus vulgaris (LV) represents its most common form. We report a case of a 20 years misdiagnosed Lupus vulgaris with an unusual localization on the elbow.

Case report:

A 80 years old well-nourished male patient who had been living in Morocco since birth, presented with a 20 year history of an orange, painless, non-healing ulcer, and slowly growing skin lesion on his right elbow, following a localized minor trauma few months earlier. There was no regional or generalized lymphadenopathy and systemic examination was unremarkable. He reports a past history of pulmonary tuberculosis for which he had not received specific antituberculous therapy. The dermatological examination revealed two large, brownish-red, infiltrative plaques with central atrophy and peripheral apple-jelly nodules. Dermoscopy findings showed telangiectasias on an orange-colored background with whitish reticular streaks and an apple jelly-like infiltrate. The biological assessment as well as chest radiography were normal. Mantouxe test was positive. Histopathological examination revealed an epithelioid and gigantocellular granulomatous dermatitis with caseous necrosis suggestive of Lupus vulgaris. A combination of rifampicin(600 mg/day), isoniazid(300 mg/day), pyrazinamide (1500 mg/day) and ethambutol(1500 mg/day) was successfully administered to treat the cutaneous lesions with great improvement and complete cicatrization of the ulceric lesions.

Discussion:

Tuberculosis remains an important health problem in underdeveloped and developing countries, particularly in Morocco where it is endemic. Lupus vulgaris is a progressive form of cutaneous tuberculosis occurring in patients with moderate or high immunity against tuberculosis. LV occurs either by reinfection or by lymphatic or hematogenous spread. As no endogenous source of tuberculosis was found, we hypothesized haematogenous spread mechanism might well apply in our patient who has a previous history of tuberculosis and developed cutaneous lesions after a local trauma. Clinically, the onset is insidious with plaques of applejelly nodules, scarring and tissue destruction. The diagnosis of LV is challenging due to the chronicity, variable clinical presentation, and paucibacillary nature of the disease. Dermoscopy is a useful, nonspecific but sensitive tool for the diagnosis of LV. Skin biopsy is recommended to confirm the disease and perform tissue culture and polymerase chain reaction testing for an accurate diagnosis of LV. Many cases of lupus vulgaris are mistakenly treated as atypical mycobacterial infection or vascular malformations, which are responsible for the long delay before initiation of anti-tuberculosis treatment. Adequate treatment is crucial because lupus vulgaris, if left untreated, carries a risk of chronic ulceration responsible for local destruction or malignant skin tumors. Our case illustrates the importance of having a high index of suspicion for this disease on any chronic atypical lesion, especially for patients living in or coming from endemic countries, as it is a curable disease.

Extensive cutaneous cryptococcosis in an immunocompetent patient

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Introduction & Objectives:

Cryptococcosis is an opportunistic invasive fungus - caused by the fungus of the genus Cryptococcus - that most frequently affects immunosuppressed patients. Despite this, there are some reports in the literature of immunocompetent patients who presented the condition in a localized form.

Clinically, the generalized form presents symptoms such as fever, cough, chest pain, weight loss, headache, mental confusion, nausea and changes in vision. While the cutaneous form presents erythematous lesions, ulcers and subcutaneous masses.

This pathology has a predilection for affecting the skin, the central nervous system and the lungs. Its diagnosis is made based on biopsies, laboratory tests and if necessary cerebrospinal fluid.

Its treatment depends on both the clinical form and the patient's condition, and amphotericin B, fluconazole, itraconazole and flucytosine may be used.

Materials & Methods:

An 88-year-old male patient sought our service due to an injury that appeared on his right arm a year ago. The patient reported mild local pain and burning, denied systemic symptoms and had lost weight of 6 kg in the last 2 months. On physical examination, the patient presented an infiltrated erythematous plaque with some hemorrhagic points with ulcerations and a nodular portion on the right forearm. Comorbidities included systemic arterial hypertension and heart failure, using losartan and carvedilol. Hypotheses of possible sarcoma, deep mycosis and tuberculosis were raised. Then, a biopsy was performed and tests were requested.

Results:

The biopsy showed an intense inflammatory infiltrate composed of numerous lymphocytes, histiocytes, plasma cells and multinucleated giant cells, often encompassing rounded or oval fungal structures, similar to yeast, with a clear halo, without budding. PAS and Grocott stains were positive, suggestive of cryptococcosis.

Laboratory tests and chest radiography did not show alterations. Itraconazole 200 mg/day was then introduced for 6 months, showing improvement in the condition. The patient is still under treatment.

Conclusion:

Although cryptococcosis is a pathology that mainly affects immunodeficient patients, it can also affect immunocompetent patients.

Regarding its treatment, there are suggested medications already mentioned. In our patient we used itraconazole, but there were found reports in the literature of the use of fluconazole, amphotericin B and flucytosine with positive results.

Finally, performing a biopsy to diagnose this pathology is essential, as it is not a common dermatosis in the

community, especially in immunocompetent patients.

Lymphogranuloma venereum: two clinical cases

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Introduction & Objectives:

In recent years, a number of not endemic countries have seen an increase in the incidence of lymphogranuloma venereum (LGV). Most cases of LGV are registered in MSM, with a predominance of clinical symptoms of the rectum and colon, while classic manifestations of the disease are not often observed. In Russia, cases of LGV are considered rare and currently there are no official statistics on the incidence of this infection. Clinical cases of LGV with classic manifestations of the disease are presented.

Materials & Methods:

Two male patients Moscow residents, with lymphogranuloma venerum were verified in consultative and diagnostic center. Patient R., 35 years old, with complaints of a formation on the skin of the penis, which appeared about a month ago, and the patient also noted a feeling of bloating that had appeared over the past week, a single episode of blood in the stool and periodic "cold sweats". Patient A., 40 years old, with complaints of enlarged inguinal lymph nodes for 4 days. Both of patients were for the purpose of examination for sexually transmitted infections. Chlamydia trachomatis DNA was detected.

Results:

The clinical cases of LGV demonstrate the classic manifestations of the disease. In the first case, the stages of LGV can be traced: the appearance of a primary affect (ulcer on the penis), the development after a few weeks of regional (inguinal) lymphadenitis and proctitis (anorectal syndrome). On the background of prescribed antibiotic therapy according to the regimen: doxycycline at a dose of 100 mg twice a day for 21 days, the clinical manifestations are completely resolved. The second case is interesting in the development of the clinical picture of LGV from the second stage of the disease (inguinal syndrome) and the ineffectiveness of treatment with doxycycline, which subsequently required surgical intervention.

Conclusion:

Sexually transmitted infections, which are rare, also require clear diagnostic approaches, including accurate laboratory diagnosis. It is rare infections that can cause the greatest difficulties in diagnosis. Lymphogranuloma venereum can occur in different populations and geographic locations, and timely diagnosis and treatment makes it possible to prevent further spread of infection and the development of complications.

Tropical pyomyositis, a rare staphylococcal infection of muscles: a series of 3 cases in a tertiary center in São Paulo, Brazil.

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Introduction & Objectives: Tropical pyomyositis (TP) is a rare muscle infection described in 1971. The initial report was attributed to a *Staphylococcus aureus* infection, and subsequent cases included *Streptococcus sp., Candida albicans, Escherichia coli* and *Mycobacterium spp.* as potential agents. Patients may present with fever, pain, and an ill-defined erythematous swelling with difficulty of movement. Diagnosis is confirmed by the detection of the infectious agent from the affected muscle or blood culture. Delayed diagnosis may lead to osteomyelitis, joint destruction, muscle necrosis and septic shock.

The aim of this study is to highlight TP as a potentially life-threatening differential diagnosis of necrotizing fasciitis and cellulitis, especially in immunocompromised patients.

Materials & Methods: To report 3 patients with confirmed TP evaluated between 2022 and 2024 in a tertiary center in São Paulo, Brazil, after review of medical records and laboratory results.

Results: Three immunosuppressed patients were included in this study: case 1 was a 55-year-old male patient with uncontrolled diabetes mellitus and a 2-month history of a lesion on the thigh; case 2 was a 54-year-old male patient with diabetes mellitus and pemphigus vulgaris treated with rituximab 3 months prior to the development of 3 lesions on the thorax, and using prednisone 1.3 mg/kg/day and mycophenolate mofetil 2g/day; case 3 was a 37-year-old female patient with dermatomyositis treated with prednisone 0.75 mg/kg/day and intravenous immunoglobulin that presented with 1 lesion on the thorax and 1 on the pelvis for 1 month. Their symptoms included pain, swelling, and bulging. Diagnosis was confirmed after culture of the drained purulent material showed positivity for *S. aureus* MSSA (cases 1 and 3), *S. aureus* MRSA (case 2) and *Serratia marcescens* (case 3). Antibiotic therapy was adjusted according to the antibiogram: case 1 received clindamycin and ciprofloxacin for 7 days, and oxacillin for 28 days; case 2 was treated with vancomycin for 66 days, and ciprofloxacin and metronidazole for 16 days; and case 3 received cephalexin for 7 days, oxacillin for 10 days and levofloxacin for 23 days. The initial drained volume ranged from 120 mL to 1,000 mL, with a total volume from 141 mL to 3,500 mL. Patients were hospitalized for a median of 57 days (32 to 78 days) and were discharged with full recovery, with no recurrences after a follow-up of between 5 to 19 months.

Conclusion: TP is a rare infection of muscles that affects mainly immunocompromised patients due to diabetes mellitus, immunosuppressive therapy, HIV and malignancy. The pathogenesis is not fully understood and has been related to trauma and undernourishment. Mortality rate of TP varies from 2% to 9%, and is mostly related to delayed diagnosis and surgical management, and incomplete surgical drainage. Early diagnosis is essential for adequate treatment and sequelae prevention to achieve a better outcome.

A creeping eruption of the buttocks: atypical presentation of cutaneous larva migrans in a returning traveller

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Introduction & Objectives:

Cutaneous larva migrans (CLM) is a cutaneous parasitic infection caused by a variety of zoonotic hookworms. It is typically transmitted via dog or cat faeces containing the eggs of *Ancylostoma caninum* or *Ancylostoma braziliense* in sand or soil, which develop into larvae that enter the epidermis via direct skin contact. Clinical manifestations include intensely pruritic erythematous, serpiginous, migrating tracks at the point of entry, most commonly the feet. Differentials include larva currens, the cutaneous manifestations of *Strongyloides stercoralis*, scabies, loiasis or larva with dermal penetration. Herein we present a case of CLM with a severe local inflammatory reaction in an atypical site.

Materials & Methods:

A middle-aged female presented with a 3-week history of pruritic, painful perianal and vulval dermatitis. This began on holiday in Saint Lucia as a small itchy area on the left medial buttock, and progressed despite trials of treatment with oral antivirals and antibiotics (for suspected herpes zoster with secondary bacterial infection), topical corticosteroids, and antihistamines. Holiday activities had included swimming, snorkeling and beach recreation. She reported no new sexual partners or recent unprotected sex. No others were affected. She was otherwise well with no systemic symptoms or previous dermatological conditions.

On examination, urticated, erythematous and serpiginous areas were noted across both medial buttocks, with a more confluent plaque on the left with erosion and scale. This extended to the labia majora bilaterally.

Results:

Though a working diagnosis of CLM was made, further investigations were conducted to support diagnosis and exclude differentials such as an atypical inflammatory dermatosis or other parasitic or fungal infection. Laboratory investigations were normal except for eosinophilia (1.24; normal range 0.03-0.46). Serology for *strongyloides* and *toxocara* was negative. Skin swabs showed moderate growth of staphylococcus aureus and mixed organisms and were negative for herpes simplex virus and varicella zoster virus. Skin scrapings for fungal microscopy and culture were negative. Biopsies demonstrated acanthosis, hyperkeratosis, subepidermal oedema and inflammation with prominent eosinophilia.

We prescribed ivermectin orally at 200mcg/kg, two doses taken on days 1 and 2 after presentation, alongside topical betamethasone 1mg/g and fusidic acid 20mg/g. The patient reported rapid relief of itch within hours of taking the first dose of ivermectin and had only postinflammatory erythema visible at 1-week follow up.

Conclusion:

CLM is a common parasitic infestation in returning travelers from beach destinations in the Caribbean, South America, Africa, the Mediterranean and South East Asia. It emerges after an initial incubation period of days to months, and is generally self-limiting, resolving when larvae eventually die within 6 weeks. Investigations are not

needed where a clear diagnosis can be made clinically, though in this case these were carried out due to severity of symptoms, extent of involvement and atypical presentation. Treatment with antihelminthic agents including albendazole and ivermectin are effective and fast in onset. This case illustrates an atypical clinical manifestation of CLM, the importance of taking a detailed travel history, and dermatologists' awareness of cutaneous manifestations of parasitic infections in returning travelers.

Lichen scrofulosorum: a rare manifestation of cutaneous tuberculosis

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Introduction & Objectives:

Lichen scrofulosorum, also known as "tuberculosis cutis lichenoides", is a rare cutaneous tuberculosis presenting as a lichenoid rash of tiny papules.

Clinical case:

We report here a case of this rare dermatosis in a 45-year-old adult male with no history of tuberculosis and no particular pathological antecedents, who presented with non-pruritic keratotic follicular papules surmounted by pustules in places localized on the abdomen, trunk and back, evolving for two months prior to admission, with no other associated cutaneous or extra-cutaneous signs.

The tuberculin skin test was positive. Skin biopsy revealed epitheliogigantocellular granulomatous dermatitis. The rest of the paraclinical work-up was normal. On the basis of these clinical and paraclinical findings, the diagnosis of cutaneous tuberculosis in the form of Lichen Scrofulosorum was accepted.

The patient was put on anti-tuberculosis treatment: isoniazid, rifampicin, ethambutol and pyrazinamide for 2 months, then isoniazid and rifampicin for 4 months, with a good clinical evolution after 6 weeks.

Discussion:

Tuberculosis is a common disease. Its cutaneous form, known as tuberculosis, is a rare and poorly diagnosed disease.

A tuberculoid is a cutaneous immunological reaction to the presence of occult tuberculosis in a patient with moderate to high immunity. The main characteristics of tuberculosis are a positive tuberculin test, evidence of past or present occult tuberculosis and a good response to anti-tuberculosis treatment. Many skin conditions used to be interpreted as tuberculosis, but today only three conditions are considered true tuberculosis: lichen scrofulosorum, papulonecrotic tuberculosis and Bazin's indurated erythema.

Of the three tuberculids, the incidence of lichen scrofulosorum was found to be the lowest (2%) in a large study carried out in Hong Kong. This highlights its rarity and importance as an important marker of undetected tuberculosis.

It was first described by Hebra in 1860. Clinically, it is characterized by tiny, flesh-colored perifollicular papules arranged in clusters, with smooth surfaces, but occasionally spiny projections with fine scales can be seen. Lesions are mainly found on the abdomen, chest, back and proximal parts of the limbs. The rash is usually associated with a strongly positive tuberculin reaction. Histology shows noncaseating epithelioid granulomas in the upper dermis and around the phanera. Tuberculosis bacilli are almost never seen in the histological sample, nor can they be cultured.

Conclusion:

Lichen scrofulosorum remains a rare form of cutaneous tuberculosis. It can be difficult to diagnose, as its clinical presentation resembles many other dermatological conditions often considered as a priority. Hence the importance of a good clinical and paraclinical analysis.

a relapsing actinomycosis

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Introduction & Objectives:

Cutaneous actinomycosis is a rare bacterial infection caused by a Gram-positive, filamentous bacteria called Actinomyces israelii. The incidence of this disease is higher in man, and the prognosis is better when treated earlier.

Materials & Methods:

We report an uncommon case of a 43 year old man with an actinomycosis of the right foot that appeared 3 years ago worsened recently. We will discuss this case through a review of the litterature.

Results:

A 43 years old man, without any past medical history, no trauma history, has presented 3 years ago painful papules of the right foot, which has rapidly increased in size last year. He consulted an orthopedic surgeon who did an excision of the tumor and histology showed actinomyces filaments. He was under Itraconazole for 6months with a relapse of the lesions and multiple papules and nodules. He consulted our department two weeks ago for the painful erythematous nodules of the medial foot arch. Right foot X-Ray is normal. An MRI, showed multiple micro-abscesses of soft tissues without bone involvement. We started oral sulfamethoxazole trimethoprim 40mg/kg/day one week ago.

Conclusion:

We report a relapsing case of actinomycosis. The treatment is mainly depending on antibiotics and Continuous follow up is important.

Autochthonous case (Itraconazole-resistant) of Trichophyton indotineae

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Introduction & Objectives:

Trichophyton indotineae is a recently discovered dermatophyte species. On the Indian subcontinent, it is near-epidemic. There is evidence that it spread from the Indian subcontinent worldwide. The fungus is identical to genotype VIII inside the T. mentagrophytes / T. interdigitale species complex which was discovered in 2016. T. indotineae causes an inflammatory and irritating dermatophytosis of the face, groins and gluteal area. Patients of all ages and genders are impacted. The new species has mainly displaced other formerly common dermatophytes on the Indian subcontinent. T. indotineae has become a troublesome dermatophyte due to its in vitro and in vivo resistance to terbinafine. Itraconazole is the most effective drug currently available for terbinafine-resistant dermatophytoses, according to recent evidence.

Materials & Methods:

In this case we report the clinical and mycological findings in a female presenting with multiple annular plaques involving the face and groin.

Majority of sources are those from articles in academic journals through an extended literature review and a selection strategy through critically reviewing the research paper. In order to review the evidence, a PubMed based review of the English language literature was performed. Search strategy terms included "dermatophytosis," "*Trichophyton indotineae*," "recalcitrant," "refractory," and "resistant" among others.

Results:

A diagnosis of Trichophyton indotinea was established on the basis of the mycological findings.

Conclusion:

Such cases of refractory *Trichophyton indotineae* in what seems to be an emerging challenge. There is a shortage of randomised control studies on this species and how to approach management of such cases. Despite a scarcity of literature on the topic, the issue of antifungal resistance is quite common, leading to a therapeutic challenge in this case.

Under the Radar: Detecting and Treating Norwegian Scabies in an Elderly Patient

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Introduction & Objectives:

Human scabies, caused by Sarcoptes scabiei hominis, typically presents with characteristic burrows, erythematous papules, and vesicles. While primary lesions, such as papules, vesicles, and burrows, are pathognomonic signs, secondary lesions can arise from scratching and rubbing. Crusted scabies, also known as Norwegian scabies, is highly contagious form of classic scabies, characterized by hyperkeratotic and crusted lesions covering large areas, with minimal pruritus. Affected individuals are often elderly or immunocompromised and disease is associated with significant morbidity and mortality. Diagnosis relies on clinical presentation, identification of mites or their products, and histopathology, with treatment involving scabicidal agents and management of secondary infections.

Materials & Methods:

An 81-year-old male patient presented with extensive papular exanthema, itching, and burning sensations. Cutaneous lesion exibited hyperkeratosis and crustiness and extended over significant portions of the body, including the genital region, glutei, and palms of the hands. Noteworthy medical history included arterial hypertension and angina pectoris, while chronic therapy consisted of isosorbide mononitrate and ramipril/hydrochlorothiazide. Upon referral to our Clinical Hospital Center, patient's condition was initially interpreted as drug exanthema and paraneoplastic syndrome and the patient underwent a thorough diagnostic workup, with treatment involving the administration of diluted local corticosteroids. However, local therapy did not lead to improvement.

Results:

Extensive diagnostic work-up, including scraping tests for scabies, abdominal ultrasound, X-ray of the thoracic organs, and blood tests showed no signs of internal malignancy. Since there had been no changes in the patient's chronic therapy for years, the diagnosis of drug reaction was ruled out. Elevated IgE titers (>2500) were recorded in blood tests. Skin scraping tests for scabies tested negative, but biopsy and subsequent histopathological analysis of a lesion located on the gluteus revealed multiple mites and irregular structures consistent with scybala in the stratum corneum. This finding, along with elevated IgE titers, supported the diagnosis of scabies. Treatment with Peruvian balsam resulted in symptomatic relief and resolution of skin changes.

Conclusion:

This case underscores the challenges in diagnosing crusted scabies, emphasizing the importance of clinical suspicion and comprehensive diagnostic evaluation. It also highlights the potential for false-negative results in diagnostic testing and the necessity of initiating treatment based on clinical presentation, particularly in suspected cases of parasitic skin diseases. Norwegian scabies should be considered in elderly, immunocompromised patients, as well in those with prolonged use of topical corticosteroids. Misdiagnosis may lead to delays in correct diagnosis, as lesions may take on an incognito form, complicating diagnosis and treatment. Early recognition and prompt initiation of appropriate treatment are crucial in preventing disease progression and potential infestation of the patient's contacts.

Chromoblastomycosis: an evolution of a neglected tropical disease with dramatic presentation

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Introduction & Objectives:

Chromoblastomycosis (CBM) is a deep and chronic mycosis, that causes a granulomatous reaction of the skin and subcutaneous tissue. It is caused by a variety of fungi, that are usually introduced into the body by trauma. The lesions are mostly found on exposed regions of the body, which can lead to stigma and discrimination. This condition is common in rural communities, mainly affecting populations living in poverty with significant morbidity. It is considered endemic in tropical regions, and it is characterized as a Neglected Tropical Disease.

Materials & Methods:

We report a male, 55 years, agricultural worker, living in a rural area. He presented an extensive erythematous plaque, with irregular edges covering the entire left lower limb, which presented advanced scleroderma. The lesions started 12 years ago, and around the fourth year he was diagnosed with CBM, being treated in the state capital specialized hospital of dermatology, with long term itraconazole. He abandoned the treatment after 2 years because of his difficulty to attend consultations and to get the medication, since his a boat ride to be evaluated took 12 hours long, besides in his own perspective, the lesions did not stop progressing. When appraised by our medical team, the patient stated that for the last 3 years he did not under go any treatment, the lesion stopped evolving, and he had to be retired, for he no longer could walk properly.

Results:

CBM clinical appearance is usually polymorphic, varying in 5 different forms: nodular, tumoral, verrucous, plaque, and scarified, which can result in misdiagnosis or delayed diagnosis. The time required for diagnosis can range from 1 month to nearly 40 years after the initial infection, displaying the difficulty in finding the true incubation time of CBM. The risk of a delayed diagnosis is antifungal resistance, chronic lymphedema, ankylosis, and in rare cases transformation into squamous cell carcinoma.

The diagnosis requires clinical suspicion, and it can be done with scrapes from the surface of the lesion viewed under the microscope, culture or biopsy. It is of ultimate importance that differential diagnoses are considered, such as tuberculosis verrucosa cutis, blastomycosis, leishmaniasis, syphilis, lobomycosis, because of the polymorphic appearance of the lesions.

The treatment can be oral antifungal drugs or cryotherapy, depending on the size of the lesion. And considering the areas where the disease is common, the diagnosis and treatment are usually difficult to be resolved.

Conclusion:

To help improve early diagnosis and clinical managment, health care services need to train professionals that attend this areas and offer teleconsultation to help in cases that are not responding to usual treatment.

Cutaneous Granulomatous Dermatitis in an Immunocompetent Adult Associated with Wild-Type Rubella Virus

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Introduction & Objectives:

A 75-year-old otherwise healthy male presented with a long history of a large, reticulated, indurated purple plaque on his left lower leg of unclear etiology. Several biopsies showed granulomatous inflammation and negative bacterial, mycobacterial, and fungal tissue cultures and 16S ribosomal testing for mycobacteria and fungus. Laboratory studies were overall unremarkable. Patient was worked up for underlying venous disease, foreign body reaction, sarcoidosis, hepatitis, and tuberculosis, which were all negative. It was felt that the cutaneous granuloma was likely secondary to an infectious process that had not yet been identified.

Materials & Methods:

Formalin fixed paraffin embedded tissue was sent to the Centers for Disease Control and Prevention (Atlanta, GA) for rubella immunohistochemical staining.

Results:

Multiple biopsies of lesions on the nasal sidewall from 2021, forehead from 2022, and left thigh from 2023 were positive for rubella by immunohistochemistry. Biopsy of the right elbow in 2023 underwent additional testing with immunohistochemistry and polymerase chain reaction (PCR) which demonstrated the rubella virus was wild-type, Clade 2 virus. He was treated with pentoxifylline, doxycycline, and hydroxychloroquine with mild improvement in symptoms.

Conclusion:

Our case is an example of rubella-associated cutaneous granulomatous dermatitis. Atypical granulomatous dermatitis has been reported with rubella virus, which is thought to be a potential antigenic trigger. Inflammatory granulomas have been most commonly associated with vaccine-derived rubella virus in immunocompromised patients but more recently have been observed in immunocompetent patients and with wild type. This case highlights an important observation that a negative biopsy may not rule out rubella as an antigenic trigger, and is an additional case of the wild-type virus, which is concerning given the eradication status of the disease. In cases of rubella-associated chronic cutaneous granulomas, biopsy can be initially negative but positive on re-biopsy if a newer lesion develops. Clinicians should consider rubella etiology in patients with atypical chronic cutaneous granulomas.

Acneiform-like lesion as a cutaneous manifestation of disseminated cytomegalovirus in an immunosuppressed patient

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Introduction & Objectives:

Cytomegalovirus (CMV) is a virus of the Herpesviridae family, widely disseminated in the world population. Its infection is usually asymptomatic in immunocompetent individuals but can cause severe disease in immunocompromised patients, including those with HIV infection, solid organ transplant recipients, or bone marrow transplant recipients. The cutaneous manifestations may occur as part of a primary CMV infection or as a result of viral reactivation in previously infected patients. Clinical presentations of CMV cutaneous manifestations are diverse and include vesicular lesions, papules, pustules, erythematous plaques, ulcers, and vasculitis-like lesions. These lesions can be localized in specific areas of the body or disseminated widely, and their severity may vary according to the immune status.

Materials & Methods:

A 30-year-old man recently diagnosed with HIV was hospitalized for neurotoxoplasmosis and oral/esophageal candidiasis in January, when he was treated with sulfadiazine and pyrimethamine, trimethoprim-sulfamethoxazole, fluconazole and corticosteroid, with improvement of the condition. He had a CD4 count of 8 and a viral load of 4.790 in March.

He entered in our service in April, 9 days after the appearance of multiple oral lesions, retrosternal and epigastric pain, making it difficult to swallow solids, liquids and medications. Furthermore, he had skin lesions on his trunk that had been mildly itchy for 1 month. On examination, he presented papular lesions spread across the trunk. He had negative TRM-TB, bacilloscopy, LF-LAM and serum antigen for cryptococcus.

Treatment with anidulafungin was started with oral/esophageal candidiasis in mind and an upper digestive endoscopy was requested to elucidate the esophageal condition.

The skin condition progressed to papulo-pustules and upon examination, he had several monomorphic acneiform lesions on the trunk. The dysphagia persisted, and fluconazole and ganciclovir were prescribed.

In the initial tests, a serum PCR for cytomegalovirus was 80,452. Endoscopy revealed ulcerative lesions, which were biopsied and demonstrated cytopathic changes compatible with cytomegalovirus. Skin biopsy demonstrated perivascular lymphomononuclear inflammatory infiltrate, endothelial swelling and isolated multinucleated giant cells in the dermis. Immunohistochemistry yielded a focal positive result for CMV antigen.

Results:

The patient was treated as disseminated cytomegalovirus, and foscarnet was started.

Conclusion:

Although the most common cutaneous manifestation is in the form of an ulcer, cytomegalovirus infection can

trigger polymorphous lesions. Among them, acneiform lesions may be present and should be considered especially in immunosuppressed patients.

Onychomycosis: etiological agents and associated comorbidity in a Mexican population.

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Introduction & Objectives: Onychomycosis is caused by three types of fungi: dermatophytes, yeasts, and non-dermatophyte filamentous fungi. Microbiological diagnosis is essential for treatment, since this varies depending on the etiological agent, as well as the associated comorbidity. The objective is to determine the prevalence of etiological agents and associated comorbidity.

Materials & Methods: Observational, cross-sectional and single-center study, carried out between 2019-2022, patients with a diagnosis of onychomycosis who had a mycological culture were included. Non-parametric statistics were used to describe the variables, to compare the means (Mann-Whitney U) and to evaluate independent variables using logistic regression. Microsoft Excel 365 and STATA statistical software version 16 were used.

Results: 75 patients were studied, of these 64% (n=48) were women, the median age was 60 years (minmax 4-94), the frequency of etiological agents was: 80% Trichophyton sp, followed by 9.3 % Candida sp, 3% Microsporum sp and Acremonium respectively, and 1% Aspergillus sp, Epidermophyton sp, Geotrichum sp and Penicillium sp respectively. The most common comorbidities were 41% (n=31) endocrine disease; diabetes mellitus 2 with 33% (n=25), hypothyroidism 11% (n=8), arterial hypertension 32% (n=22). Autoimmune diseases with 31% (n=23); rheumatoid arthritis 7% (n=5), systemic lupus erythematosus 5% (n=4), multiple sclerosis 3% (n=2) and antiphospholipid antibody syndrome 3% (n=2). Oncological diseases 21% (n=16); rectal cancer, breast cancer, thyroid cancer, myelodysplastic syndrome and B cell lymphoma 3% (n=2) respectively. Hepatopathy 12% (n=9); Non-alcoholic hepatic steatosis 7% (n=5), dyslipidemia 11% (n=8), lung disease 7% (n=5), interstitial lung disease 4% (n=3), neurological disease 9% (n=7) and epilepsy 4% (n=3).

Conclusion: The etiological agents with the highest prevalence were Trichophyton sp, followed by Candida sp, Microsporum sp and Acremonium sp. The common denominator in the associated comorbidity was immunodeficiency secondary to endocrinological, autoimmune and oncological pathologies.

Scrofuloderma: report of a case with coinfection with Hepatitis C Virus

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Introduction & Objectives:

Tuberculosis is a universal health problem, however cutaneous tuberculosis is a rare chronic infectious disease. Skin manifestations depend on several factors such as associated comorbidities, so the diagnosis may be late.

Objective: Report a case of a patient diagnosed with tuberculosis with scrofuloderma skin lesions coinfected with the Hepatitis C virus.

Materials & Methods:

This is a 65-year-old man with a personal pathological history of Diabetes and Hypertension who consulted in November 2022 due to bilateral and asymmetric disseminated dermatosis that affected the neck, thorax in the right proximal supraclavicular and mid-infraclavicular region, as well as the armpits, characterized by multiple nodules. of different sizes, well-defined edges, surface covered with erythematous skin, not painful and gums with purulent material coming out as well as the formation of multiple fistulas, being evaluated by the Surgical Oncology service, performing a biopsy and starting with unspecified antibiotic treatment. However, in March 2023 he began with febrile episodes without a predominance of time and new lesions in the chest and armpits. Therefore, it was decided to carry out additional studies that included Quantiferon and a viral panel for hepatitis viruses. The histopathological study reported fibroadipose and muscular tissue with chronic granulomatous necrotic inflammatory reaction, a granulomatous reaction was observed with lymphohisticcytic cells, multinucleated giant cells, few polymorphonuclear cells and necrosis in the lower right corner. With the above, the diagnosis was established by clinical-pathological correlation of cutaneous tuberculosis type scrofuloderma. Subsequently, the results of the previous tests were obtained being positive for Hepatitis C Virus and tuberculosis.

Results:

The patient was referred to the Infectious Diseases service and treatment was started in the intensive phase with Rifampicin, pyrazinamide, ethambutol and isoniazid, with a favorable response. The patient is currently being followed up through outpatient consultation by the Infectious Diseases, Dermatology and Gastroenterology services.

Conclusion:

Cutaneous tuberculosis accounts for less than 1% of all tuberculosis cases. Due to clinical presentation and diagnostic difficulties, it is clinically neglected and misdiagnosed. In this case, cutaneous tuberculosis with Hepatitis C Virus infection causes a significantly increased risk of mortality regardless of age, sex, economic situation, geographic area, and comorbid disorders. Recognizing lesions such as nodules, gums and fistulas in topographies such as the neck, armpits and groin will allow us to make an early diagnosis and treatment of the disease.

Primary Cutaneous Histoplasmosis: A Diagnostic and Therapeutic Challenge

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Introduction & Objectives:

Histoplasmosis is a deep, opportunistic, and endemic mycosis, caused by the dimorphic and saprophytic fungus *Histoplasma capsulatum*. It is common in tropical areas, with greater prevalence in North America, Central America, and South America (1). The infection is prevalent in construction and chicken workers, especially in individuals with an immunocompromised system as in human immunodeficiency virus (HIV) (2). Multiple clinical presentations have been described. Acute, chronic, and disseminated pulmonary histoplasmosis is acquired through inhalation of microconidia which are transformed at the tissue level into yeast, while the primary cutaneous form is acquired by direct inoculation (3). Diagnosis is based on microbiological isolation or immunological tests. Its treatment depends on the type of histoplasmosis (1). We present the case of a patient with a recent diagnosis of HIV and the presence of primary cutaneous histoplasmosis.

Materials & Methods:

A 45-year-old male patient recently diagnosed with HIV/AIDS who consulted due to the recent appearance of an erythematous nodule on the skin of the upper lip after localized trauma, associated with progressive growth and pain, without respiratory or systemic symptoms. Physical examination showed a 10mm diameter verrucous plaque with corded edges on the skin of the upper lip, associated with cervical lymphadenopathy. Under a suspected diagnosis of opportunistic mycosis, a skin biopsy was performed with hematoxylin and eosin staining, which reported the presence of lymphohistiocytic infiltrate with granulomas, and periodic acid-Schiff (PAS) staining, showed small yeasts with a clear halo and intra and extracellular eccentric nuclei congruent with cutaneous histoplasmosis. The other studies to rule out other atypical microorganisms were negative. Under a diagnosis of primary cutaneous histoplasmosis, treatment was started with intravenous liposomal amphotericin b for 14 days and subsequently oral itraconazole 200 mg every 12 hours for 12 weeks with resolution of the clinical condition.

Results:

The presence of skin lesions after trauma and direct inoculation of the spores in the absence of involvement in other organs establishes the diagnosis of primary cutaneous histoplasmosis. Occasionally it can manifest as nodules, ulcers, abscesses, or lesions similar to molluscum contagiosum as a less frequent presentation (3,4). For diagnosis, a skin biopsy can be performed to carry out special stains for fungi, culture, or polymerase chain reaction (PCR), as well as immunological tests to detect antigens or antibodies. Multiple treatment schemes have been described, with itraconazole being the drug of choice and amphotericin in severe cases (5).

Conclusion:

We present to the scientific community a case of primary cutaneous histoplasmosis, a rare clinical form to take into account in patients with suspected deep mycoses with skin involvement.