

# Cryotherapy for treatment of sporotrichosis: Case reports of rapid cure with adjuvant cryotherapy

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#### Introduction & Objectives:

Sporotrichosis is a subcutaneous fungal infection caused by various sporothrix fungus species. Cutaneous infection often occurs via inoculation of fungus into the intact skin due to traumatic skin injuries. Various cutaneous manifestations of sporotrichosis can occur ranging from those limited to skin with ulcero-nodular lesions along lymphatics to systemic dissemination to lungs and meninges rarely.

## Materials & Methods:

Here we report two cases- one fixed cutaneous form and other lymphangitic form of sporotrichosis, in a 32 year old and 40 years old Asian male working in rural part of Nepal.

#### **Results:**

Both the patients had long standing history of ulceronodular lesions over extremities along the lymphatic channels, who were treated successfully with adjunct physical modality of treatment i.e., cryotherapy of 4-5 sessions along with oral itraconazole 200 milligram for 4-5 weeks.

There was complete resolution of lesion with rampant remission and no recurrence post therapy till date.

#### **Conclusion:**

As there's possibility of prolonged use of over-the-counter antifungal medication, lack of regular follow up and lack of laboratory monitoring, especially in the rural parts of Nepal, therapy should be tailored towards onsite physical treatment with cryotherapy in addition to oral antifungals which can be cost effective and with decreased systemic side-effects.



## A 12-month history of a progressive rash on a background of significant long-term immunosuppression

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## Introduction & Objectives:

This abstract references an unusual rash caused by an atypical infection in a susceptible individual.

## Materials & Methods:

A 52-year-old patient was referred in 2022 with a 12-month history of a progressive rash on the right leg with tender, inflamed and erythematous lesions.

The patient had a background of severe Relapsing Polychondiritis that was diagnosed in 2016. The disease was being managed with prednisolone 30mg OD, having previously failed other immunosuppressive agents including methotrexate, azathioprine and 6 cycles of IV cyclophosphamide. Additionally, the patient was also on co-trimoxazole for *pneumocystis jirovecii* pneumonia prophylaxis

On examination, erythematous and violaceous plaques and nodules were noted at the right leg with the lesions clustering and coalescing at the right medial thigh. A few of the lesions appeared infiltrated with pale material. Several warts were noted on the dorsal aspect of the hands, indicating significant immunosuppression.

Differential diagnoses considered included: a vasculitic process, deposition disorders or an infective process.

An urgent skin biopsy was requested.

#### **Results:**

An urgent biopsy revealed palisaded granulomatous and neutrophilic dermatosis, indicative of an infectious aetiology. The patient was referred to the Infectious Diseases team. AAFB culture and whole genome sequencing revealed a diagnosis of *Mycobacteroides chelonae*, a non-tuberculous mycobacterium. The patient was commenced on 6 months treatment with combined doxycycline 100mg BD and clarithromycin 500mg BD. The patient responded well to treatment, with resolution of nodules on treatment completion.

This case highlights the need for an increased index of suspicion in patients with a history of significant immunosuppression. Our patient had undergone a negative ELISA based Interferon Gamma Release Assay (IGRA) in 2020 prior to IV cyclophosphamide. There is some evidence to suggest that ELISA based IGRA may have the capacity to identify patients with non-tuberculous mycobacteria.

There is robust guidance on TB infection screening prior to initiating immunosuppression in the UK (IGRA and chest radiograph). There is a relative paucity of guidance related to infection monitoring after commencement of immunosuppression and the need for repeat IGRA.

#### **Conclusion:**

Given the increasing using of complex chemotherapy and immunosuppression regimens in standard practice, retaining a high index of suspicion for complex or atypical infection remains important and serves to highlight the need for appropriate investigation. Developing appropriate guidelines to rationalise infection monitoring of patients on long term immunosuppression could further improve patient care.



# Hyperkeratotic scabies - or just because of negligence?

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## Introduction & Objectives:

A highly contagious hyperinfestation, caused by *Sarcoptes scabiei var hominis*, occurs in immunocompromised patients (lack of proper immune response to the mites) or patients with gene predisposition (Aboriginal communities in northern Australia). An atypical clinical picture of hyperkeratotic scabies may lead to a lack of proper diagnosis and treatment.

## Materials & Methods:

This lecture presents cases of patients with hyperkeratotic scabies caused by associated immune disorders, difficulties in diagnosis, complications, and improper treatment.

#### **Results:**

Hyperkeratotic scabies is a consequence of the uncontrolled infestation of parasites in the skin because of an imbalance of the inflammatory response.

Key differences between crusted scabies and classic scabies:

- over 1 million mites are present on the patient's skin (in scabies, up to 10-20 mites)
- itching may be minimal or absent
- clinical picture: hyperkeratosis, slight erythema, clefts, impetiginization
- unusual location: involvement of the back, head, nails
- mortality is much higher in older patients (risk of developing sepsis, kidney failure).

Treatment of hyperkeratotic scabies requires hospitalization and isolation of the patient due to the risk of transmitting the disease to people in physical contact. Then, all contacts should be treated regardless of symptoms.

Oral ivermectin does not affect egg viability, therefore a second dose is recommended {evidence level Ib; recommendation A}

Resistance to drugs, including permethrin and ivermectin, is an increasing problem (new drugs: moxidectin, fluazuron, vaccinations).

#### **Conclusion:**

The main problems associated with scabies in immunosuppressed patients are higher morbidity, high infectivity, recurrence, delayed diagnosis, ineffective treatment, and secondary infections associated with mortality.



# tinea pedis : clinical and mycological study

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# Introduction & Objectives:

Tinea pedis, commonly known as athlete's foot, is fungal infection of the interdigital toe-web space as well as the skin of the feet. It is the most frequent dermatophytosis. Onychomycosis, defined as fungal infection of the nail, represents up to 20 % of all nail disorders. Several studies assessed the prevalence of tinea pedis and/or onychomycosis in different countries

# Materials & Methods:

A total of 1300 male subjects, mean age  $35.9 \pm 16$  years (range 16-80) were recruited among individuals attending the Department of Dermatology, and were clinically examined. A complete dermatological examination was performed on all the subjects, and skin and nail specimens of the feet were taken from those patients presenting signs of tinea pedis and/or onychomycosis for microscopy and fungal culture. A diagnosis was established when clinical manifestations were combined with a positive direct mycological examination and culture documented pathogenic species.

# **Results:**

Tinea pedis and onychomycosis were suspected in 249 and 72 subjects, respectively, and confirmed in 197 and 60 cases, respectively, resulting in a global prevalence of tinea pedis and toenail onychomycosis of 15% and 4.6%, respectively.

# **Conclusion:**

The clinical and epidemiological data collected would serve as reference for future research and may be useful in the development of preventive and educational strategies



# Challenges in the treatment of persistent crusted scabies

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## Introduction & Objectives:

Crusted scabies (CS) is a highly contagious form of scabies that occurs predominantly in immunocompromised individuals, including the elderly, disabled, or debilitated. The World Health Organization classifies scabies as a neglected tropical disease. While a typical scabies infection comprises fewer than 15 mites, patients with CS may harbor millions of mites within hyperkeratotic skin and scales. The current epidemiological data on CS is not well-known; however, the global burden of scabies is estimated at 200–300 million cases annually.

## Materials & Methods:

We present the case of an 85-year-old male patient with a history of erythema and pruritus in the groin area, first appearing 4 months prior to admission to our department. Initially, when the skin changes appeared, he reported to a general physician, who prescribed topical corticosteroid therapy. However, the skin changes progressed over his entire body. Heteroanamnestic data suggest that his wife experienced pruritic skin changes, which resolved after self-treatment with herbal remedies. In his personal medical history, he reported hypertension, glaucoma, and benign prostatic hyperplasia.

#### **Results:**

The patient exhibited generalized thick scaly plaques, including in the interdigital spaces and under the nails, with more than 90% of the skin affected. Physical examination revealed a body mass index (BMI) of 16 kg/m<sup>2</sup>. Laboratory tests indicated anemia (low RBC and hemoglobin), hyperglycemia, mild hypoalbuminemia and eosinophilia. Crusted scabies was considered the working diagnosis, and direct microscopic examination confirmed S. scabiei. An ELISA test was performed to rule out an HIV infection. Ivermectin was administered at a dose of 200mcg/kg on days 1, 2, 8, 9, and 15, along with permethrin 5% cream applied daily for seven days, then twice weekly until resolution. As the skin changes did not fully resolve and direct microscopic examination remained positive, an additional dose of ivermectin was given on day 22. Subsequently, the first negative sample for S. scabiei was obtained.

# **Conclusion:**

We report a case involving multiple risk factors (malnutrition, inappropriate use of topical corticosteroids, and advanced age) that facilitated infestation by Sarcoptes scabiei. Evidence suggests that the misuse of corticosteroid therapy and a diminished immune response can promote the growth and differentiation of the mites. Our patient applied topical corticosteroids for an extended period without medical advice, occasionally using them to alleviate pruritus. Ivermectin, in combination with permethrin, is a cornerstone of therapy for crusted scabies. The therapeutic regimen with ivermectin at a dose of 200 mcg/kg should be tailored to the severity of the infestation. Regular follow-up assessments are crucial to appropriately plan therapy. Our treatment led to a substantial regression of the lesions and a negative scraping test. The delay in therapy, as the patient did not consult a GP or dermatologist promptly and instead used topical therapy independently, underscores the importance of timely diagnosis of hyperkeratotic scabies to prevent secondary infections caused by scratching.



# Atypical cutaneous tuberculosis

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**Introduction & Objectives:** Cutaneous tuberculosis (CT) is a rare, often indolent, manifestation of mycobacterial infection that may present in various clinical manifestations. This case presents an atypical manifestation of CT.

# Materials & Methods: Case report

**Results:** A 44-year-old man with no previous pathological history consulted us for an asymptomatic erythematous plaque of the face that had been evolving for a year . On physical examination, the patient was in good general condition. Dermatological examination revealed a poorly limited, infiltrated erythematous plaque associated with extensive oedema of the left cheek. The rest of the examination was unremarkable, with no fever, no adenopathy and no chronic cough. The diagnosis suggested were dermohypodermatitis of the face, but the chronic course and absence of dental fistula were against this diagnosis. Cutaneous leishmaniasis in its erysipelatoid form, primary cutaneous lymphoma, sarcoidosis or cutaneous tuberculosis. A biopsy of the lesion showed a granulomatous dermatosis without necrosis, in favor of sarcoidosis. However, the laboratory work-up showed a positive quantiferon test. Bacteriological examination of a skin biopsy of the lesion came back negative, but the polymerase chain reaction test was positive. The diagnosis of cutaneous tuberculosis was then confirmed and the patient was put on quadritherapy with clear clinical improvement and disinfiltration of the oedema.

Conclusion: By recognizing cutaneous tuberculosis early, dermatologists can play an important role in disease control.



## Chromoblastomycosis

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# Introduction & Objectives:

Chromoblastomycosis is a chronic granulomatous infection of the skin and subcutaneous tissue caused by several dematiaceous fungi. Resulting in the formation of slow-growing warty plaques and cauliflower-like lesions.

## Materials & Methods:

This is the case of a 70 y.o. female patient with multiple comorbidities, who presented to the clinic for slowly growing plaques and nodules on her left hand in the past 6 months, for which she tried oral steroids and antibiotics without improvement. Physical exam showed 3 inflamed hyperkeratotic nodules cauliflower-like on the left wrist and forearm, with secondary ulcerations and pustules. The lesions are non-pruritic and non-painful. She denies any insect bites or recent occupational exposure or travel history. The differential diagnosis at this stage included: non-TB mycobacterial (NTM) skin infection, neutrophilic dermatosis, deep fungal infection of the skin and leishmaniasis. Biopsy from the lesion was taken for histopathologic examination with special stains, NTM PCR analysis, acid fast culture, bacterial and fungal cultures. Histopathology showed hyperkeratotic skin with parakeratosis, pseudo-epithiliomatous epidermis with marked mixed interstitial inflammation with granulomatous and abscess formation. Special stains for bartonella, leishmania and sporotrichiosis were negative. No signs of neutrophilic dermatosis were seen. PCR for NTM infection with acid fast and fungal cultures were negative. However, bacterial culture was positive for Streptococcus agalactiae and the patient was started on amoxicillin/clavulanic acid with mild improvement; hence, it was considered a superinfection. The lesions kept growing and became more exophytic and verrucous in appearance with overlying black dots. A deep fungal infection of the skin was suspected, specifically chromoblastomycosis. Re-reading of the initial histology showed the characteristic sclerotic bodies within the granulomatous reaction, which appeared clinically as black dots on the lesions. The diagnosis of chromoblastomycosis was made, and the patient was started on oral itraconazole 100mg twice daily. 5 weeks later she showed drastic improvement in her lesions, and was maintained on this regimen for 6 months.

#### **Results:**

Chromoblastomycosis is a chronic granulomatous infection of the skin caused by several different dematiaceous fungi (ex. Cladosporium carrionii), resulting in the formation of slow-growing warty plaques and cauliflower-like lesions which may ulcerate. When ulceration has occurred, there is usually a secondary bacterial infection such as in our case. These fungi are found in wood and soil and enter the body following trauma and appear on exposed areas. They evoke a granulomatous response, with pseudoepitheliomatous hyperplasia. The fungal elements are rarely visible as sclerotic bodies, which are brown and extruded transepidermally. They appear as black dots on the surface of the lesion which is characteristic of chromoblastomycosis. The antifungal drugs of choice are itraconazole or terbinafine, given for a period of a year or more. Other treatment options include, oral potassium iodide solution, cryotherapy and excision of solitary lesion.

#### **Conclusion:**

Chromoblastomycosis is a forgotten mycosis, it manifests as slowly growing painless verrucous lesions. Characteristic black dots are seen on the surface of the lesions, representing the sclerotic bodies seen rarely on histology.





# Epidemiology of scabies in Korea from 2010 to 2021: An updated report

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## Introduction & Objectives:

Scabies is a neglected disease that significantly affects the daily lives of patients and those living with them.

The present study is aimed to investigate the most recent epidemiological reports of scabies in Korea from 2010 to 2021 by using the National Health Insurance (NHI) claims database. The incidence of scabies is provided in terms of agestandardized incidence rates (ASRs) that adjust for the effect of an aging population as well as age-specific and regional incidence rates.

# Materials & Methods:

We performed a nationwide-population based observational study by using data from the NHI claims database between 2010 and 2021, which covers up to 98% of the Korean population. The primary outcome measure was the annual incidence of scabies between 2010 and 2021. Subgroup analyses were performed according to sex, age, and region of incidence.

#### **Results:**

A total of 517,296 scabies cases were identified, with a male-female ratio of 0.83. The annual age-standardized incidence rates steadily decreased from 2010 (97.6 per 100,000 person-years [PY]) to 2021 (43.4 per 100,000 PY), with an average annual percent change of -5.0%. A steep decrease was observed in 2015 (-12.9%), 2020 (-12.7%), and 2021 (-22.8%). An aging trend in patients with scabies was observed, with patients aged  $\geq$ 50 years old accounting for 36.5% and 63.8% of patients in 2010 and 2021, respectively. The  $\geq$ 80 years age group showed the highest age-specific incidence rate. Although all age groups showed reductions in annual incidence, the extent of the reductions was relatively greater in patients aged <50 years old. Although the number of patients with scabies was the highest in Gyeonggi, Seoul, and Busan, the regional incidence rates were highest in Gwangju, Jeonbuk, Jeonnam, Daejeon, and Jeju.

## **Conclusion:**

This is an up-to-date report on the nationwide incidence of scabies in Korea that demonstrates a decreasing incidence in all age groups and the aging of affected patients during the last 12 years. Strategies that target elderly patients are required for the effective control of scabies, particularly those that control for outbreaks in long term care hospitals. Outbreaks of respiratory infectious diseases affect the incidence of scabies, thus indicating that general hygiene and isolation are important for scabies control.



# Study Comparing Topical Ivermectin Versus Topical Permethrin in the Treatment of Scabies

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**Introduction:** Scabies is a highly contagious skin disease caused by an ectoparasite mite called*Sarcoptes scabiei*. Ivermectin and permethrin have been commonly used for the treatment of scabies.

**Objectives:** This study aimed to compare the efficacy of topical ivermectin versus topical permethrin in the treatment of uncomplicated scabies.

**Materials & Methods:** We conducted this research at a dermatology outpatient clinic, where study participants were assigned to two groups. In Group A, individuals received 1% ivermectin while Group B participants were treated with 5% permethrin lotion, applying it from the neck to the toes on a weekly basis for at least eight hours. Both groups extended treatment to their household contacts, following strict application guidelines and avoiding other topical therapies. Evaluations took place at the end of the second and fourth weeks, involving comprehensive assessments to gauge treatment effectiveness through clinical evaluation and microscopic confirmation.

**Results:** After two weeks, clinical cure rate was observed to be at 61.0% for ivermectin and 67.3% for permethrin. By the end of week 4, continued treatment for the remaining cases resulted in a cure rate of 85.5% and 89.9% for ivermectin and permethrin, respectively. Both of the topical therapies resulted in very similar results with the difference between them remaining insignificant throughout the treatment duration (P>0.23).

**Conclusion:** Our study demonstrated equivalent efficacy between ivermectin 1% and permethrin 5% as topical therapies for the treatment of uncomplicated scabies, as evidenced by comparable results. Importantly, no statistically significant distinctions emerged between the two treatment groups, with patients exhibiting consistent compliance throughout the trial, hence affirming the confidence with which both ivermectin and permethrin can be employed in a clinical setting.



# Pyemotes ventricosus dermatitis: a re-emerging dermatitis?

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#### Introduction & Objectives:

Pyemotes ventricosus dermatitis (PVD) is an uncommon dermatitis characterized by its comet-tail-like appearance. It is caused by the bite of *Pyemotes ventricosus(PV)* mites. We present two cases of PVD.

#### Materials & Methods:

Case 1:

A 28-year-woman presented with multiple vesicles and papules surrounded by an expanding erythematous macule and a linear erythematous track evolving over the last 24 hours on the trunk and members. Pruritus was intense. The anamnesis revealed that she was on holiday in an old Riad.

Case2 :

A 42-year-woman without medical history consulted for itchy lesions with a serpentine shape in the upper limbs. The anamnesis revealed a walk in wheat fields two days before.

They, both, received topical steroids and antihistamine drugs. One week later, lesions have disappeared.

# **Results:**

DVP is an almost forgotten disease which caused epidemics in farm-workers in the fifties in Indiana-US and recently in 2007 in southern France. The latest literature review was made in 2022 including 40-cases.

PV is free-living mite. It infests *Anobium-punctatum's* larvae, a common wood-beetle found in furniture, and *Sitotroga-cerealella*, found in seed and wheat. Humans can be accidental hosts when in contact with parasitized wood and grains. In our cases, the first patient was bitten by PV found in the Riad's antique wooden furniture. The second patient was probably bitten when in contact with parasitized cereals.

Mites are invisible and their bites are painless, however, the clinical presentation is typical. Within 24 hours after contact, patients develop vesicles on an erythematous base on the bite's site highly pruritic, then, a serpiginous erythematous track extending the lesion appears called the "comet sign". The comet-tail is due to the transepidermal migration of ectoparasites. DVP is self-limiting.

#### **Conclusion:**

Clinicians should be aware of this underreported disease. We believe that the re-emergence of new epidemics in the future is possible due to reduction in pesticide use.



#### a rare co occurence of varicella and herpes zoster in an immunocompromised patient

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#### Introduction & Objectives:

Varicella is a common, contagious. Herpes zoster (HZ) is the reactivation of latent varicella zoster virus (VZV) and occurs most frequently in older adults.

We report the observation of a young adult immunocompromised patient, without history of varicella during infancy who developed both Varicella and Herpes zoster in the same time.

## Materials & Methods:

22 year old male patient, with a history of segmental and focal hyalinosis under oral corticotherapy and Mycophenolate mofetil without history of Varicella during childhood, admitted for an extensive vesicular rash evolving for one week.

Dermatological examination found facial swelling associated with an oedema of the 2 eyelids more accentuated on the left eye, umbilicated vesiculo pustular lesions on the scalp, face, trunk and 4 limbs, crusty and impetiginated lesions on the face, Ulcerated belt-shaped vesicular exanthema in the left hemi thorax, petechial purpura on the trunk and oral enanthemata, upon questioning the patient, it was discovered that the vesicular rash manifested three days prior to the development of belt-shaped vesicular exanthema. The rest of clinical examination found snoring rales.

Biological workup showed lymphopenia, thrombopenia, hepatic cytolysis (X10 N), hypo albuminemia at 17, elevated C-reactive protein at 300 and Procalcitonin at 10 ng/ml, renal failure with creatinin at 35 and urea at 1.40. Chest X-ray and thoracic CT showed a varicella-like pneumopathy, cerebral MRI showed a slight subcortical atrophy, lumbar puncture was normal as well as electroencephalogram.

The diagnosis of malignant varicella associated to thoracic herpes zoster complicated with varicella pneumonia and sepsis was retained. Immunosuppressive treatments were suspended and the patient was put on triaxon 2g per day, aciclovir 10mg/Kg/8h, albumin infusion and analgesic treatment as well as LED sessions for pain. The evolution was good, skin lesions have regressed and hepatic and infectious work up have normalized.

#### **Conclusion:**

Both varicella and herpes zoster are caused by the Varicella Zoster Virus (VRV), varicella is the primary infection and herpes zoster is a reactivation of the varicella-zoster virus that usually occurs in adulthood, In some cases, individuals can experience both varicella and herpes zoster simultaneously or in close succession, like was the case of our patient, this occurrence is relatively rare but has been reported in some case reports.

It is believed that the occurrence of both varicella and herpes zoster seems to be associated with a compromised or weakened immune system, which allows the varicella-zoster virus to reactivate and cause both conditions.



# Herpes simplex virus type 2 infection mimicking dermatitis herpetiformis

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## Introduction & Objectives:

We present a case of a 70 year old Indonesian female with a background history of diabetes mellitus, on diet control. She presented to our clinic with a blistering rash recurring once every 1 to 3 months for the past 20 years. The rashes involved her back, buttocks and thighs primarily. Each episode was associated with mild itch, and the lesions would resolve after about 3 days.

On examination, there were scattered vesiculopustules and small bullae on an erythematous base, alongside scattered superficial clean erosions, affecting the patient's lower back, buttocks and lower limbs.

The initial impression was that of a possible autoimmune blistering disorder such as dermatitis herpetiformis.

The objective of this case presentation is to highlight an unusual clinical presentation of cutaneous herpes simplex virus (HSV) type 2 infection, which can sometimes mimic autoimmune blistering skin conditions.

#### Materials & Methods:

This is a case report of an unusual presentation of cutaneous HSV type 2 infection.

#### **Results:**

A punch biopsy of a representative vesiculopustule from the patient's right thigh revealed an intraepidermal blister with acantholytic keratinocytes, nuclear debris and neutrophils. There were also multinucleated giant cells with molded, steelgrey nuclei exhibiting margination of nuclear chromatin. A superficial and deep perivascular infiltrate of lymphocytes was present as well.

A separate punch biopsy was done from perilesional normal skin for direct immunofluorescence – this yielded negative results.

Swabs from the base of the active lesions for HSV/varicella zoster virus polymerase chain reaction were positive for HSV type 2.

The patient was commenced on oral valacyclovir long term, which has since brought her skin condition under control.

## **Conclusion:**

This case report highlights an unusual clinical presentation of cutaneous HSV type 2 infection, which may have led to a delayed diagnosis.



# **Disseminated Cutaneous Herpes Zoster in an Immunocompetent Patient**

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## **Disseminated Cutaneous Herpes Zoster in an Immunocompetent Patient**

## Introduction & Objectives:

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

## **Case report:**

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 over the affected area, evolving for 72 hours. 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 occular signs were noted. HIS 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. Intravenous acyclovir 10 mg/kg every 8 hours and local care were started, with 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. The situations 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.

Age-related decline of VZV CMI 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 . In a recent study, allergic rhinitis, COPD, CAD, cerebrovascular accident, depression, diabetes, hyperlipidemia, hypothyroidism and osteoarthritis were associated with an increased risk of HZ.

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.

#### **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.



# Results of a Phase 2 Randomized, Double-Blinded Trial of BB2603 Topical Treatment in Subjects with Distal Subungual Onychomycosis of the Toenail

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# Introduction & Objectives:

BB2603 is a novel, easy-to-use, low-velocity spray being developed as a topical treatment for onychomycosis. It is a nanoformulation of the antifungal drug terbinafine with the excipient polyhexamethylene biguanide (PHMB) to enhance solubility and drug delivery through the nail. BBTAF202 was a Phase 2, dose-ranging study of 3 BB2603 strengths (BB2603-10 [0.1% terbinafine], BB2603-3 [0.03%], BB2603-1 [0.01%]) twice-daily (BID) in subjects with distal subungual onychomycosis (DSO) of the toenail(s). The primary objective was to establish early clinical and mycological efficacy of BB2603-10 versus vehicle at Week 16, 4 weeks after a 12-week treatment period. Secondary objectives included assessment of early efficacy for BB2603-3 and BB2603-1, efficacy at Week 52, pharmacokinetics, and safety/tolerability. A 12week duration is considerable shorter than for other approved topical treatments for onychomycosis (≥48 weeks).

# Materials & Methods:

A multi-centre, international, randomised, vehicle-controlled, parallel-group, double-blind study in adults with clinically and mycologically confirmed DSO of at least 1 toenail. 111 subjects were randomised to 12 weeks treatment BID with BB2603-10, BB2603-3, BB2603-1 or vehicle, and then entered an offtreatment period (no other antifungal treatments permitted) until Week 52. The primary treatment comparison was BB2603-10 versus vehicle. The primary endpoints were proportion of subjects with negative dermatophyte culture and proportion of subjects with clear nail growth at Week 16. Secondary/exploratory efficacy endpoints included mycological cure, complete cure and treatment success at Week 52.

# **Results:**

Significantly more subjects treated with BB2603-10 had an early response of negative dermatophyte culture and/or clear nail growth at Week 16 compared with those who received vehicle (83.3% vs 51.4%, p=0.004). This treatment difference was driven by the effect of BB260310 on negative culture (80.6% vs 40.5%, p<0.001) rather than clear nail growth (16.7% vs 21.6%, p=0.593). The percentage of subjects with negative culture was higher in all 3 BB2603 groups compared with the vehicle group at both Week 12 and Week 16. Mycological activity was sustained to Week 52 despite the 40-week off-treatment period; Week 52 mycological cure was 30.6% in the BB2603-10-group compared with 5.4% in the vehicle group (p=0.005). Combined mycological and clinical responses (complete cure/treatment success) at Week 52 were achieved in a small number of subjects treated with BB2603 and no subjects in the vehicle group. There was no detectable systemic terbinafine exposure detected following BB2603 treatment. All BB2603 strengths had an excellent safety and tolerability profile. In the BB2603-10 group, there were no treatment-related adverse events, no serious adverse events and no adverse events leading to treatment discontinuation.

# **Conclusion:**

The study met the primary objective. BB2603-10 was statistically significantly superior to vehicle in percentage of subjects with negative dermatophyte culture at Week 16, 4 weeks after end of treatment. Mycological cure at Week 52 was significantly higher in the BB2603-10 group compared with vehicle, even after a 40-week off-treatment period. BB2603-10 is the appropriate strength of BB2603 to take forward into Phase 3 - it is associated with excellent safety and tolerability, and no detectable systemic exposure.



# Clinical features of atypical forms of zooanthroponous trichophytosis

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**Introduction & Objectives:** Trichophytosis is a widespread and severe dermatomycosis. Trichophytosis most often affects the scalp and children mainly suffer from this disiese. However, in recent years, cases of atypical forms have become more frequent, in particular, with predominant damage to the pubic and inguinal areas, as well as the chronic course of trichophytia, especially in adults.

The purpose of the study: To study the clinical features of atypical forms of zooanthroponous trichophytosis.

**Materials & Methods:** 84 patients with trichophytosis aged 20 to 54 years were under observation. Of these, 48 men (57%) and 36 women (43%). Of the examined patients, the vast majority (89,4%) were aged 20 to 40 years. The duration of the disease of the patients ranged from 5 days to 10 months. Among the patients we observed, 15 (17,9%) were diagnosed with superficially spotted, 18 (21,4%) with infiltrative and 51 (60,7%) with infiltrative suppurative forms of zooanthroponous trichophytosis. The diagnosis of trichophytia of the pubic region was confirmed by the results of mycological studies. The material was flakes of skin and hair taken from lesions.

**Results:** An analysis of the sources of infection showed that the main ways of transmission of infection is sexual contact with a husband or wife, as well as strangers, as indicated by 68 (81%) patients, and the remaining 16 (19%) patients could not indicate the cause of the disease.

It was revealed that the first lesions in all patients appeared in the pubic area, and later in some patients the trichophytic process spread from the pubic area to smooth skin and other areas.

When analyzing the localization of the pathological process, it was found that in 15 (17,9%) patients, the first foci appeared in the pubic area, in 49 (58,3%) – in the pubic area and smooth skin (thigh, abdomen), in 18 (21,4%) – in the pubic area, smooth skin (thigh, abdomen) and on the skin of the genitals and in 2 (2,4%) patients of the pubic region, smooth skin (thigh, abdomen) and scalp.

Microscopic examination of 84 patients revealed Trichophyton ectotrix dermatomycetes in all of them. Of these, fungal growth was obtained in 38 (45,2%) cases during a cultural study. Of the dermatomycetes, the main causative agent was Tr. faviforme, which was detected out of 38 in 33 cases.

**Conclusion:** Currently, there continues to be an increase in the frequency of occurrence of zooanthroponous trichophytosis in adults with the localization of the disease in the pubic area, the main route of transmission of which is sexual (81%). The leading role in the etiology of pubic trichophytosis is caused by Tr. verrucosum (var. faviforme), which is sown in 86,8% of cases. Pubic trichophytosis is associated with STIs in 22,6%. In 60,7% of cases, the infiltrative-suppurative form of the disease prevails with the development of acute inflammatory peripheral follicular infiltrates (abscesses, trichophytic granulomas).



# Paediatric Leprosy: A Retrospective Descriptive Study from a tertiary care hospital

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## Introduction & Objectives:

Although leprosy has been eliminated at the national level, areas of endemicity exist where the transmission continues to be high. Childhood leprosy is an important marker of the status of the ongoing leprosy control programme, as it is an indicator of active disease transmission in the community. We aimed to analyze the clinical and epidemiological features of childhood leprosy over four years in a tertiary care hospital

## Materials & Methods:

A retrospective analysis of four year records of leprosy patients aged less than 15 years in a tertiary care hospital was carried out from 2019-2023. Data were analysed.

## **Results:**

A total of 23 (11.55%) cases of childhood leprosy were reported during the period from 2019-2023. Multibacillary cases constituted a total of 2 cases (8.69%), while paucibacillary constituted 21 (91.3%) cases. The Female:Male ratio noted was 1.09:1. Signs of reaction were found in 02 (8.69%) cases, no deformity was noted. Family contact was positive in 4 (17.39%) cases. Single case was smear positive. All cases with slit skin smear positivity, more than five skin lesions and more than one peripheral nerve involvement were classified as MB (multibacillary leprosy) and received 12 months treatment, while the rest were classified as PB (paucibacillary leprosy) and underwent treatment for 6 months.

# Classification of the subjects as per the World Health Organization's classification

TYPE OF LEPROSY	NUMBER		
PAUCIBACILLARY	21 (91.3%)		
MULTIBACILLARY	2 (8.69%)		
TOTAL	23		

#### Table showing distribution of reactions amongst the leprosy patients

Reaction	Number		
TYPE 1	2		
TYPE 2	0		
TOTAL	2		

#### Table showing comparison of current study with other studies

	Ghunawat et al	Balai et al	P. Chaitra et al	Present Study
Study duration	11 years	10 years	8 years	4 years
Total pediatric cases	113 (7.6%)	32 (2.3%)	36 (12.86%)	23 (11.55%)
Multibacillary cases	57 (50.4%)	13 (40.62%)	24 (75%)	2 (8.69%),
Paucibacillary cases	56 (49.6%)	19 (59.37%)	8 (25%)	21 (91.3%)
Type 1 reactions	14	Data not available	3	2
Type 2 reactions	3	3	1	0
Deformities	28 (24.7%)	4 (12.5%)	5 (13.89%)	None

## **Conclusion:**

The proportion of childhood cases is an important indicator of the success of the disease control program. The rate of childhood leprosy continues to be high. Lack of proper access to health facilities, ignorance among the general population, high susceptibility due to an immature immune system etc make this population highly vulnerable. Apart from the case detection, it is also of utmost need to educate parents regarding treatment completion, as many stop treatment following subjective improvement. #### Conflicts of interest: There are no conflicts of interest.



# Treatment of cutaneous leishmaniasis with Nd:YAG laser

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## Introduction & Objectives:

Cutaneous leishmaniasis (CL) is a zoonotic disease caused by protozoan flagellates of the Leishmania genus. It is characterized by ulcerative nodules with central crusts. Meglumine antimoniate (MA) is the main treatment. Other topical, systemic, and physical treatments are described. Laser treatment gave good results. Our objective was to determine the effectiveness of the Nd-YAG laser in the treatment of CL.

## Materials & Methods:

This is a retrospective study including patients with CL confirmed by parasitological tests and consenting to Nd-YAG laser treatment over a period of 3 years (2021-2023). The parameters used were: spot size : 3mm, pulse duration: 20ms, and intensity: 200mJ/cm2. The sessions were spaced out by 15 days. Local anesthesia with lidocaine was used 30 minutes before the session.

# **Results:**

We included 7 patients. The median age was 31 years. The sex ratio was 2.5 (M/F). All patients presented with ulcerative nodules with central crusts. The average size of the lesions was 2cm. They were multiple in one patient. The location was the feet in three patients, the legs in two patients, the elbow in one patient, and the forearm in one patient. Two patients did not tolerate the treatment with pain felt at the first session. The Nd-YAG laser was effective in four patients with flattening of the lesions and healing of the central ulceration after an average of two sessions. Post-inflammatory hyperpigmentation was noted in these cases. Healing of the central ulceration without flattening of the border was observed after six sessions in one patient. The history revealed the use of topical corticosteroids.

#### **Conclusion:**

CL is an infectious disease that resolves spontaneously between one month and six years. Several treatments have been proposed, including intramuscular and intralesional MA. The Nd-YAG laser typically emits light with a wavelength of 1064 nm, in the infrared. The beam produced causes a homogeneous zone of thermal coagulation and necrosis which can extend up to 4 mm deep and laterally in the skin. In the literature, a study comparing the effectiveness of the Nd-YAG laser to AM injections in patients with cutaneous leishmaniasis concluded that there was a reduction in the number of sessions with an average of two sessions in the group of patients treated with laser. These patients had a lower risk of hypertrophic scars, as in our series. Post-inflammatory hyperpigmentation was more frequent in the laser group. Pain is another complication of this treatment. Pulsed dye laser, CO2 fractional laser, and laser erbium glass are other therapeutic alternatives.



# Unilateral worsening in a patient with chronic plaque psoriasis: a case of Majocchi-like dermatophytosis

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## Introduction & Objectives:

Psoriasis is a chronic inflammatory disorder of the skin, affecting nearly 2-3% of the general population. It is assumed that the imbalance between the types of natural microflora can accelerate the onset of the disease and contribute to its severity.

# Materials & Methods:

We report the case of a unilateral worsening in a patient with chronic plaque psoriasis due to a dermatophytosis.

#### **Results:**

A 58-year-old Caucasian male, Fitzpatrick's phototype III, with a history of mild to moderate chronic plaque psoriasis, who had previous disease control with topical treatment (calcipotriol 50ug/g and betamethasone dipropionate 0.5mg/g foam on-demand), presented to our outpatient dermatology department with a two-month history of unilateral gradual worsening of his skin disease, mainly on the right arm and forearm, as well as the right hemiface, with pustules and intense pruritus. He denied any other symptoms. The patient had started a job in a cuniculture farm, where he had daily contact with farm rabbits. On physical examination, besides the typical psoriatic erythematous plaques with micaceous scale on the elbows and knees, there were irregular erythematous scaly plaques on the anterior aspect of the right arm and forearm and right superior hemiface, with overlying follicular erythematous papules and pustules. The diagnostic hypothesis of fungal infection was considered. Skin scrapings and hairs were collected and mycologic examination identified Trichophyton mentagrophytes. A diagnosis of a papular perifollicular Majocchi-like tinea corporis and faciei was established. The patient was treated with itraconazole per os 100mg and fenticonazol 20mg/g cream twice daily for 6 weeks, with significant improvement.

# **Conclusion:**

The correlation between infection and psoriasis is well established. Previous reports in the literature have demonstrated that some fungi can play the role of superantigens and prolong chronic inflammation in the skin of psoriatic patients. Moreover, the sustained use of topical corticosteroids and systemic immunosuppressive drugs in these patients increases the risk for local fungal superinfections. Trichophyton mentagrophytes is a zoophilic dermatophyte and the second most common cause of dermatophytosis, including Majocchi granuloma. The presence of local immunosuppression due to topical steroid use and contact with farm animals allowed for this infection in our patient. This case highlights that the presence of uncharacteristic dermatologic features in psoriasis, such as the unilateral atypical worsening in this patient, should elicit the exclusion of a fungal superinfection, in order to establish a correct diagnosis and timely treatment.



# Amylase is a biomarker of invasive bacterial wound infection

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## Introduction & Objectives:

Background: Lack of an accurate diagnostic test for bacterial infection is a fundamental challenge to current medical practice. Here we demonstrate that the wound-to-serum difference in amylase activity (Delta-A) accurately distinguishes invasive bacterial infection in human soft tissues from non-specific tissue inflammation with or without bacterial contamination.

## Materials & Methods:

We used a prospective-specimen collection, retrospective-blinded-evaluation (PRoBE) design to compare bacterially infected wounds, with wounds exhibiting post-surgical inflammation  $\pm$  contamination (n=38).

## **Results:**

Result: Delta-A in the experimental cohort ( $527\pm116$  IU/L), was significantly higher than the control cohort ( $154\pm70.0$  IU, mean $\pm$ SD; p=0.0134). Delta-A reported: clinical sensitivity=95.2%, specificity=88.2%, PPV=90.9%; NPV=93.8% and accuracy=92.1%. AUROC plotting for Delta-A (0.935, p<0.001) was significantly higher than clinical microbiology (0.664, p=0.08); WCC (0.657, p=0.092) CRP (0.574, p=0.507) and clinical judgement (0.559, p=558). Clinical management resulted in correctly administered/withheld antibiotics in 54.55% of cases, versus 93.75% had Delta-A been considered (z-score - 3.596, p=0.0003).

# **Conclusion:**

Discussion: Delta-A is an accurate diagnostic test for bacterial, invasive wound infection.



## An ecthyma gangrenosum secondary to chemotherapy: about 2 cases

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## Introduction & Objectives:

Ecthyma gangrenosum (EG) is an aggressive infectious disease of the skin and mucous membranes which, in rare cases, may take the form of vasculitis. Its development occurs most often following direct infection of the skin of chronically ill or immunocompromised patients and patients with sepsis, most often with the etiology of Pseudomonas aeruginosa.We report two cases of patients with EG undergoing chemotherapy

## **Results:**

- The case involved a 04-year-old girl with acute lymphoblastic leukemia undergoing chemotherapy (methotrexate and oncovin), who presented with a genital lesion described as blackish on the labia majora, evolving 4 days prior to her consultation in the dermatology department. Examination revealed hypertrophy of the labia majora, associated with an ecchymotic butterfly-wing lesion straddling the two labia majora, surrounded by slight erythema and annular prerial erosions.
- 08-year-old girl with adhesion molecule deficiency, examined: Inflammatory plaque with a slightly circular border at the perineal level, reaching as far as the intergluteal fold, the site of multiple ulcerations with a clean background and a regular, shallow border, surmounted by necrotic plaques in places and fibrin in others. The diagnosis of ecthyma gangrenosum was accepted and the patient was put on antibiotic therapy and local care. Probabilistic antibiotic therapy (broad-spectrum β-lactam antibiotics + aminosides) was started in both patients.

# **Conclusion:**

EG is a rare disease whose most frequent cause is infection with Pseudomonas aerugenosa. It is characterized by typical cutaneous manifestations and usually occurs in immunocompromised patients such as our patient. It is usually caused by chemotherapy, human immunodeficiency virus infection, neutropenia, defective neutrophil function, agammaglobulinemia or other factors, but has also occasionally been reported in healthy individuals. The prognosis is poor, especially in cases of delayed diagnosis and treatment.



# A case of cutaneous larva migrans on the thigh of a young child mistreated as eczema

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#### Introduction & Objectives:

Cutaneous larva migrans (CLM) is a zoonotic disease. It's a common endemic disease in tropical and subtropical countries. This condition is caused by skin-penetrating larvae of nematodes : Ancylostoma braziliense or other nematodes of the family Ancylostomidae. We report a case of a 6 years old child treated for CLM acquired during vacations in Zanzibar.

## Materials & Methods:

A 6 years old female patient admitted with intense itching, erythematous and a serpiginous localized lesion on her right posterior thigh for about two weeks that was mistreated as eczema. This child and her familly were living in Morroco and travelled to Zanzibar one month ago.

Diagnosis of cutaneous larva migrans was made on history and physical examination. No skin biopsy or stool testing was performed. We prescribed her a single dose of ivermectin 200 µg/kg. After 2 days, the lesion and pruritus had regressed significantly.

#### **Results:**

CLM is most commonly acquired tropical disease that is originally found in tropical and subtropical countries. However, due to increase in foreign travel to many countries around the world, the infection is not limited to these areas.

This condition is caused by skin-penetrating larvae of nematodes. Most of the people become infected by walking barefoot, wearing open-toe shoes. Larvae can migrate 2–6 mm in a day. Later on, it leads to a wide pinkish, congested, serpiginous and shapeless lesion.

The lesions are typically distributed on the lower extremities, including the dorsal of the feet and the interdigital spaces of the toes, anogenital region can also be affected.

Diagnosis of cutaneous larva migrans is assisted by history and the observation of the lesion advancing at a rate of approximately 2- 6mm per day. Laboratory findings are not specific. Transient peripheral eosinophilia may be seen. Biopsy may be done to confirm the diagnosis but usually no parasite is seen.

Targeted treatment for this zoonotic disease includes either oral albendazole or oral ivermectin. Additionally, low-dose ivermectin 0.1% cream twice daily for 14 days or topical thiabendazole 10–15% and albendazole may provide an alternative.

## **Conclusion:**

Cutaneous larva migrans should be considered in travellers to tropical countries. Most of the cases are initially underdiagnosed, which results in a delay in starting proper treatment. Oral anti-parasitic agents seem to be more effective than topical treatment.



# scrofuloderma: retractile scar stage in a child

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Scrofuloderma: retractile scar stage in a child

## Introduction & Objectives:

Cutaneous tuberculosis is quite common in endemic countries, and represents all cutaneous manifestations caused by Mycobacterium tuberculosis. It is characterized by a high degree of clinical polymorphism depending on the terrain, the degree of host immunity to bacillus koch (BK), the mode of inoculation and the virulence of the germ, all of which make diagnosis particularly difficult and delayed.

We report a case of scrofuloderma in a 5-year-old child.

## Materials & Methods:

This 05-year-old child with no previous history had been presenting for several months with skin lesions in the groin and thigh folds, initially inflammatory, then softening and suppurating. The lesions were evolving in a context of nocturnal fever and altered general condition.

Clinical examination revealed 3 retractile scars in the left inguinal fold and the upper part of the anterior aspect of the left thigh, as well as peri-lesional adenopathy. Skin biopsy revealed a neutrophilic polynuclear infiltrate and a giganto-cell epitheloid granuloma with caseous necrosis, suggesting a diagnosis of cutaneous tuberculosis. The rest of the work-up did not reveal any other tuberculous involvement.

The patient was put on anti-tuberculosis treatment with good improvement.

#### **Results:**

Scrofuloderma is one of the most common forms of tuberculosis in children in developing countries, evolving in 4 stages: crudeness, softening, ulceration and then retractile scarring, like the lesions found in our patient. Skin biopsy revealed a granuloma with caseous necrosis.

Treatment consisted of 2 months of quadritherapy and 4 months of dual therapy.

#### **Conclusion:**

scrofuloderma is often associated with other organ lesions, such as bone or lung, and these must be sought. It's unusual in Western countries, leading to misdiagnosis. Fortunately, adapted treatment gives good results.



# Cutaneous vasculitis revealing cervical lymph nodes tuberculosis

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Cutaneous vasculitis revealing cervical lymph nodes tuberculosis

## Introduction & Objectives:

Tuberculosis is a public health problem in endemic countries. Its clinical presentations are diverse, and it can sometimes be associated with exceptional localizations or reactions that may reveal it.

We report a case of cutaneous vasculitis revealing lymph node tuberculosis in an immunocompetent patient.

## Materials & Methods:

This was a 17-year-old patient who had presented for 03 months some crusty lesions of the lower limbs associated with asthenia and weight loss.

Examination revealed ulcerative-crusty lesions on the backs of the toes and lateral sides of the feet, with small ulcerated nodules scattered over the legs and feet.

Skin biopsy revealed leukocytoclastic vasculitis, and the skin swab was negative for

koch's bacillus (BK). Biological tests revealed an inflammatory syndrome. The lymph node ultrasound showed unilateral cervical adenopathy, and the expert gene on lymph node biopsy was positive.

Chest CT scan was normal, quantiferon and HIV serology were negative.

The diagnosis was tuberculous vasculitis reactive to lymph node tuberculosis.

The patient was put on anti-tuberculosis with a rapid improvement of the cutaneous lesions from the 3rd month of treatment.

#### **Results:**

Vasculitis are secondary to inflammation of the vessels, which may have an infectious origin in 5 to 25% of cases, but very rarely a tubercular origin.

Tuberculous cutaneous vasculitis is often subacute, its pathophysiology is uncertain, probably due either to an immune reaction as in our case, or to bacterial invasion of the vascular wall. Their clinical presentations are misleading, usually seen in HIV patients, but usually regress with anti-tuberculosis treatment without recourse to immunosuppressive therapy.

#### **Conclusion:**

In highly tuberculosis-endemic countries, in front of any vasculitis the tuberculosis origin should be recalled.



#### Pyemotes ventricosus dermatitis - an underreported and misdiagnosed entity

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#### **Introduction & Objectives:**

Pyemotes ventricosus dermatitis (PVD) is a commonly overlooked, self-limiting parasitic dermatitis, caused by bites of P. ventricosus mites. The mites' life cycle is triggered when temperature reaches 26 °C, but is ubiquitous and typically infests wood, grain, seed and straw. Contact with infested material either due to outdoor or occupational activities (agriculture, woodsmen) are the main risk factors (1-4). The distribution and morphology of lesions differ from those of other arthropod bites, such as chigger bites (Trombicula autumnalis). Pruritic erythematous maculopapules featuring a central microvesicle occasionally display a linear erythematous tract, indicative of local lymphangitis and known as the "comet sign". When present, it is pathognomonic, but is noted only in around 25% of cases (4-6). Therefore, the diagnosis relies on suggestive anamnestic data (especially contact with wooden furniture) and the clinical presentation. With symptomatic treatment, the lesions typically resolve within 1-2 weeks, but may relapse with repeated exposure to an infested environment. Treatment of infested furniture with ectoparasiticide products is thus warranted (1,4,6). We report two cases of PVD, presenting to our clinic in August 2023, which were initially misdiagnosed.

## Materials & Methods:

Case 1: A 67-year-old female patient with thyroid disease and diabetes presented with a 2-day history of pruritic erythematous urticarial plaques, some with central hemorrhagic maculovesicles on the upper limbs, trunk and thighs. The patient reported recent outdoor activity, including fig pruning. Chigger bites (trombidiasis) was suspected, and topical steroid ointment prescribed. However, in the following days, new coalescing, edematous plaques appeared and Sweet syndrome was added to the differential diagnosis. A skin biopsy was performed and histopathology showed superficial and mid-dermal interface dermatitis with a mixed cellular infiltrate, consistent with an insect-bite like reaction.

Case 2: A 27-year old otherwise healthy female patient presented with new-onset pruritic pinkish plaques on her trunk. She denied fever or ill-feeling, but had received a 3-day course of azytromycin due to suspicion of lymphangitis on the breast. In the week before the rash occured, she spent a lot of time on the beach in Italy and in the garden. On examination, pink urticarial plaques, some with central hemorrhagic macules, were visible on the back and thigh. Lesions on the breasts and in the left axilla had serpiginous extensions, typical of the "comet sign".

#### **Results:**

Case 1: Upon considering the histopathology results and taking a closer look at some of the skin lesions on the thigh and abdomen, which demonstrated a short linear serpinginous tract, suggestive of the »comet sign«, diagnosis of PVD was established. The lesions resolved within two weeks of local steroid therapy.

Case 2: Based on the history and clinical nature of the lesions, a diagnosis of PVD was made. With local corticosteroid therapy the lesions subsided within 2 weeks.

#### **Conclusion:**

It is necessary to raise awareness of PVD among a wider range of healthcare providers, given its' tendency to be mistreated and mis-/under-diagnosed. Discerning the pathognomonic "comet sign", along with the necessity of a detailed patient history to uncover potential risk factors is crucial in making the correct diagnosis of this benign, but peculiar

clinical picture.



# A recalcitrant prurigo nodularis revealing an HIV infection

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## Introduction & Objectives:

Prurigo is a pruritic dermatosis defined by the presence of chronic pruritus for at least 6 weeks, scratching lesions and localized or generalized pruritic skin lesions in the form of papules, nodules or plaques. It impairs quality of life and is often resistant to treatment.

Nodular prurigo is the most common form of chronic prurigo, and is usually the final stage. It is one of the dermatological manifestations of HIV infection. We report the case of a patient with treatment-resistant prurigo that revealed retroviral infection.

## **Observation:**

A 42-year-old patient who was a chronic 20 pack-year smoker with a history of unprotected sexual relationships was referred to hospital for diagnostic and therapeutic management of a generalized pruritic papulo-nodular eruption that had been evolving for 18 months, in a context of altered general condition with a deep asthenia, a weight loss of 13 kg in 1 year and febrile sensations.

The skin examination revealed a generalized papulo-nodular rash with a firm consistency and an excoriated surface in some areas, predominating on the extension surfaces of the upper and lower limbs, as well as erythematous scaly lesions on the plantar and lateral surfaces of the feet. Mucosal lesions included a geographic tongue and burgeoning lesions of the anal margin. Multiple excoriated papulo-nodular lesions were found on the scalp and paronychia of all the fingers. Examination of the lymph nodes revealed bilateral axillary and inguinal adenopathies.

Histological examination revealed chronic hyperplastic dermatitis with eosinophilic spongiosis, and the scotch test was negative. The laboratory work-up revealed lymphopenia and a low CD4 T lymphocyte count of **32/mm3**. **Anti-HIV viral serologies** were **positive**. A CT scan revealed peripheral and deep lumbo-aortic and caelio-mesenteric adenopathies.

The patient was treated with topical steroids, emollients, phototherapy and antiretroviral therapy, with regression of the lesions in 2 months and persistence of scarring macules.

#### **Conclusion:**

The treatment of chronic prurigo is based on topical steroids, emollients, antihistamines, immunosuppressants or phototherapy, but is often disappointing.

Given the therapeutic difficulties associated with the management of prurigo, this observation should encourage practitioners to request viral serologies in cases of prurigo refractory to treatment, and to start antiretroviral (ARV) treatment as soon as possible in cases of HIV infection.

After 2 months of exposure to ARV treatment, the clinical signs regressed as a result of immune reconstitution.



# A lower lip leishmaniasis mimicking a squamous cell carcinoma

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## Introduction & Objectives:

Mucocutaneous leishmaniasis (MCL) is an anthropozoonosis caused by a protozoan of the genus Leishmania transmitted by phlebotomy bite; it is an endemic parasitic disease in Morocco. Mucosal involvement is exceptional. We report a case of cutaneous leishmaniasis of the lower lip extending to the mucosal surface and simulating a squamous cell carcinoma.

## **Observation:**

In order to exclude a carcinomatous origin, a skin biopsy was carried out, revealing a diffuse inflammatory infiltrate composed of lymphocytes and histiocytes containing rods in favor of leishmaniasis. The patient reported having spent the summer in Agadir and Imlil region 15 months previously.

The patient underwent PCR to identify the causative species and was put on systemic meglumine antimoniate with regression of the lesion 1 month later.

## **Conclusion:**

Because of its heterogeneous clinical presentation (papules, nodules, plaques, ulcerations), cutaneous-mucosal leishmaniasis represents a diagnostic challenge for clinicians. Indeed, it can lead to confusion with other infectious dermatoses (herpes labialis, syphilitic chancre, leprosy, tuberculosis), inflammatory dermatoses (Melkersson-Rosenthal syndrome, orofacial granulomatosis, granulomatous cheilitis, Wegener's granulomatosis, oral Crohn's disease, cutaneous sarcoidosis, discoid lupus erythematosus) or tumors (squamous cell carcinoma, basal cell carcinoma, lymphomas).

Identification of leishmaniasis parasites in dermal macrophages by skin biopsy or skin scraping can confirm the diagnosis. PCR is currently the diagnostic method of choice for molecular confirmation of cases of MCL (L. tropica, L. major and L. infantum). Involvement of the lip can be treated by intra-lesional injections, although systemic treatment is more effective.

In Morocco, cutaneous leishmaniasis with mucosal involvement are rare and most often involve contiguous extension of a cutaneous lesion.



## eczematoid and hypopigmented variant of cutaneous leishmaniasis: a rare presentation

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**Introduction & Objectives:** Leishmaniasis is a zoonotic disease caused by Leishmania spp. transmitted by the bite of a sandfly. CL has a varied clinical spectrum characterized by papules, plaques, nodules, ulcers, and scarring.

## Materials & Methods: Case History:

A 29-year-old male resident of Uttar Pradesh, presented with an erythematous plaque on the back which gradually increased in size over 1 year, surrounded by a hypopigmented macule with no sensory loss for 6 months, with no h/o kala azar. The patient worked as a cleaner and went on regular walks in forests in the Kinnaur, Himachal Pradesh.

On examination: Erythematous hyperpigmented plaque of size 3x3 cm over midback, covered with adherent scale and crust, surrounded by multiple erythematous and hypopigmented micro papules and hypopigmented macule was present with no sensory loss. No peripheral nerves were enlarged.

**Results:** A SSS from the lesion showed the presence of LD bodies. Smear for CL antigen detection and RT-PCR both were positive. Histology showed dense mixed inflammatory infiltrate and intracytoplasmic organisms suggestive of Leishmania amastigotes. The patient was treated with intralesional liposomal Amphotericin B.

# **Conclusion:**

Cutaneous leishmaniasis is a tropical disease caused by protozoa belonging to the genus Leishmania. CL has a varied clinical presentation. Classical is the ulcerated form present usually over the exposed sites. Atypical presentations include eczematous lupoid, zosteriform, verrucous forms.

The hypopigmented form is a rare manifestation. In our case the patient presented with an eczematoid lesion with surrounding hypopigmentation which to our knowledge has not been previously reported.

Henceforth, cutaneous leishmaniasis should always be kept in mind while examining patients presenting with hypopigmented lesions, especially from endemic areas.



# Vitamin D and HPV infection: clinical pearls

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# Introduction & Objectives:

Treating warts is a great challenge for dermatologists since no single efficacious treatment modality, with ideal efficacy and cure rates, has been introduced up to the present time. Vitamin D is one of the agents that has been tried as immune therapeutic purposes in warts.

# Materials & Methods:

Here, we reviewed the existing data regarding potential therapeutic effects of vitamin D in warts through searching on PubMed, Google Scholar and Scopus. All of the relevant papers published in English, until October, 2023, which we could access to their full-texts, were included.

# **Results:**

Studies have shown decreased serum levels of 25-hydroxy vitamin D in patients with genital warts. Moreover, a relationship has been demonstrated between serum vitamin D levels and cutaneous warts. However, it does not seem that its levels reflect the severity of warts or their resistance to treatment.

Topical vitamin D derivatives, in the form of calcipotriene or maxacalcitol ointment or calcitriol solution, have been successful in treating warts, including anogenital lesions which are among the most difficult-to-treat warts Intralesional injection of vitamin D also had been especially beneficial in the regression warts.

It is interesting that intralesional injection of vitamin D might lead to simultaneous clearance of warts at distant areas following immunotherapy.

Combination of vitamin D immunotherapy with mechanical and destructive therapies such as cryotherapy has also been tried in different studies, with favorable cure rates.

Study	Intervention	Number of patients	Therapeutic sessions	Complete clearance rate
Al-Sabak et al. (13)	IL vitamin D	40	Every 2 weeks 4 sessions	82%
Aktas et al. (14)	IL vitamin D	20	Every month 2 sessions	80%
Naresh et al. (15)	IL vitamin D	60	Every 3 weeks	80%
Kaviya et al. (16)	IL vitamin D	42	Every 2 weeks	78%
El-Sayed et al. (17)	IL vitamin D	35	Every 2 weeks	63%
	IL 2% zinc sulfate	35	4 sessions	71%
EEM et al. (18)	IL vitamin D	31	Every 2 weeks	35%
	IL PPD	31	4 sessions	69%
Shaldon et al. (19)	IL vitamin D	30	Every 3 weeks	67%
	IL MMR	30	Up to 6 sessions	80%
Raveendra et al. (20)	IL vitamin D	50	Every 2 weeks	84%
	IL PPD	50	4 sessions	76%
Yousaf et al. (21)	IL vitamin D	30	Every 2 weeks	63%
	cryotherapy	30	Up to 6 sessions	43%

\*\*

# **Conclusion:**

Immunotherapeutic interventions, including intralesional and topical vitamin D, has gained interests in the management of these lesion due to its simple application, good compliance, few side effects, high cure rates and low risk of recurrence.



## Scabies and increasing resistance to permethrin; recent observations in an outpatient setting in Albania

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## Introduction & Objectives:

Scabies is an ancient disease that today still presents important epidemiological problems. Its incidence and prevalence are increasing in Albania.It is a highly contagious skin infestation caused by the Sarcoptes scabiei mite that is transmitted through direct, prolonged, skin-to-skin contact. In Albania, the most frequently used treatments are topical permethrin 5% and benzyl benzoate 10–25%. But recently we have seen an unsatisfactory responses to permethrin 5% treatment.Despite of treatment failure has generally been attributed to incorrect application of the cream, failure to simultaneously treat coinhabitants, and insufficient disinfection of the environment, also we are suggesting that S. scabiei may be developing true resistance to permethrin.

## Materials & Methods:

We evaluated a total of 40 patients,10 children and 30 adults, during their visits in our department of dermatology in the polyclinic of specialties no 2 in Tirana, Albania.The diagnosis of scabies was established with clinical examination and by dermoscopic evaluation in all patients. Patients were divided in 2 groups; group A, 3 children and 13 adults received permethrin 5% cream within a one-week interval, while group B, 7 children and 17 adults, received the same administration of permethrin 5% cream plus the daily application of the cream on affected hands,feet and genitalia which were verified dermatoscopically.All the patients were evaluated after 3 weeks with dermoscopy and patients of group A that failed to respond, repeated the treatment according to the group B and were again evaluated after 3 weeks. Follow up after 3 weeks resulted at an equal cure rate 25% in both groups A and B after applications of permethrin 5% cream. Also patients who were retreated after 3 weeks did not benefit at all. We recorded that patients did not respond as well as they had done in previous years.

#### **Results:**

Our findings suggest that has been detected an increase in scabies treatment failure due to lack of response or resistance to topical permethrin.

#### **Conclusion:**

Scabies was included in the roadmap of the World Health Organization for neglected tropical diseases 2021–2030. Recently we are faced an increase of Scabies probably due to therapeutic multifactorial failure. We emphasize the need to review the current guidelines and assess the possibility of resistance to topical permethrin.



## Late presentation of lymphocutaneous sporotrichosis

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## Introduction & Objectives:

We report a case of lymphocutaneous sporotrichosis presenting months after the initial exposure occurred.

## Materials & Methods:

## **Results:**

The 65-year-old woman presented with a 3-month history of painful nodular lesions that first developed over the left index finger and gradually spread proximally over the left hand and forearm. She had injured herself on rose thorns 6 months ago and denied any other incidents of exposure.

Dermatological examination revealed multiple, non-tender, cutaneous nodular lesions with an overlying erythema, linearly distributed along the left index finger, dorsum of the hand, and the posterior-medial aspect of the forearm. Some of the lesions were ulcerated, covered with necrotic crusts, and secreting purulent discharge. Multiple papules with an overlying erythema were observed over the distal left index finger.

Despite normal inflammatory markers she proceeded to develop pyrexia and fatigue and was treated with multiple courses of antibiotics but showed no response. QuantiFERON-TB Gold and acid-fast stain were negative. Aspirated material (pus) from the lesion was cultured onto Sabouraud's dextrose agar and incubated at 27°C. Five days later, the growth of S. schenckii colonies appeared. We started treatment with itraconazole capsules 200 mg twice per day. Two weeks after initiating therapy, there was a significant improvement with reduced suppuration from the lesions and partial detachment of the necrotic tissue. Four weeks later, epithelialization of some of the lesions and the formation of granulation tissue were noted. The patient is currently continuing the course of treatment.

# **Conclusion:**

Lymphocutaneous sporotrichosis is the most common form of sporotrichosis, occurring among individuals with occupational exposure to S. schenckii. The incubation period might range from a few days to a couple of weeks. With this case, we want to emphasize the importance of considering sporotrichosis diagnosis even when there is a delayed presentation as in this case.



## Study of the influence of low level laser radiation on pustular microflora in acne patients

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**Introduction & Objectives:** One of the important problems in modern dermatology is to improve treatment efficiency of acne being a common cause for cicatricial skin changes, loss of performance capability and social activity and negatively affects the psycho-emotional state of patients and their quality of life. The topicality of the disease is due to the high degree of its proliferation, chronic and recurrent course, and resistance to existing therapies.

**Objective:** to study the effect of low level laser radiation (LLLR) on pustular microflora in acne patients and to determine the reasonability of its application in the course of complex treatment of such patients.

**Materials & Methods:** We have experimentally determined the LLLR effect on pustular microflora in 32 patients, out of which 10 (31.25%) had a mild degree, 14 (43.75%) medium and 8 (25%) severe degree of acne. We studied qualitative and quantitative indicators of microorganisms bacteriologically isolated from the pustular content in registered patients. A 10 mW semiconductor scanning laser device with a wavelength of 0.65 µm has been used as a source of low level laser irradiation. To study the effect of low level laser irradiation, the microorganisms cultured from pustular elements of acne patients and seeded on blood agar have been irradiated using LLLR for 5 minutes; control test tubes containing seeded microorganisms have not been irradiated.

**Results:** It has been established that due to the low level laser irradiation (10 mW) of microorganisms, cultured from pustular elements of acne patients, the population level of studied colonies became evidently (p <0.005) low by 1.48 times on average, which indicates that low level laser radiation demonstrates a bacteriostatic effect. At the same time, we have determined the sensitivity of cultures of pyogenic microorganisms persisting in the content of pustular acne to antimicrobial medications after their irradiation. It allowed us to establish that the diameter of zones of microorganisms growth retardation around discs including the diameter of a disk itself was evidently higher (1.31 times, p <0.005) as compared to the control samples not exposed to LLLR. The most significant changes in antibiotic sensitivity of acne activators after their exposure to LLLR (in the direction of sensitivity increase) have been established to the antibacterial drugs such as Doxycycline and Levofloxacin.

**Conclusion:** The obtained study results show that low level laser irradiation, the source of which is a 10 mW semiconductor scanning laser device with a wavelength of 0.65 microns, demonstrates a bacteriostatic effect, as well as increases the sensitivity of pyogenic microorganisms persisting in the content of pustular acne to antimicrobial drugs (photo-modulating effect), which substantiates the reasonability of LLLR application in the complex treatment of acne patients.



## Chromoblastomycosis, a forgotten Entity

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# Introduction & Objectives:

Chromoblastomycosis is a chronic granulomatous infection of the skin and subcutaneous tissue caused by several dematiaceous fungi. Resulting in the formation of slow-growing warty plaques and cauliflower-like lesions.

## Materials & Methods:

This is the case of a 70 y.o. female patient with multiple comorbidities, who presented to the clinic for slowly growing plaques and nodules on her left hand in the past 6 months, for which she tried oral steroids and antibiotics without improvement. Physical exam showed 3 inflamed hyperkeratotic nodules cauliflower-like on the left wrist and forearm, with secondary ulcerations and pustules. The lesions are non-pruritic and non-painful. She denies any insect bites or recent occupational exposure or travel history. The differential diagnosis at this stage included: non-TB mycobacterial (NTM) skin infection, neutrophilic dermatosis, deep fungal infection of the skin and leishmaniasis. Biopsy from the lesion was taken for histopathologic examination with special stains, NTM PCR analysis, acid fast culture, bacterial and fungal cultures. Histopathology showed hyperkeratotic skin with parakeratosis, pseudo-epithiliomatous epidermis with marked mixed interstitial inflammation with granulomatous and abscess formation. Special stains for bartonella, leishmania and sporotrichiosis were negative. No signs of neutrophilic dermatosis were seen. PCR for NTM infection with acid fast and fungal cultures were negative. However, bacterial culture was positive for Streptococcus agalactiae and the patient was started on amoxicillin/clavulanic acid with mild improvement; hence, it was considered a superinfection. The lesions kept growing and became more exophytic and verrucous in appearance with overlying black dots. A deep fungal infection of the skin was suspected, specifically chromoblastomycosis. Re-reading of the initial histology showed the characteristic sclerotic bodies within the granulomatous reaction, which appeared clinically as black dots on the lesions. The diagnosis of chromoblastomycosis was made, and the patient was started on oral itraconazole 100mg twice daily. 5 weeks later she showed drastic improvement in her lesions, and was maintained on this regimen for 6 months.

#### **Results:**

Chromoblastomycosis is a chronic granulomatous infection of the skin caused by several different dematiaceous fungi (ex. Cladosporium carrionii), resulting in the formation of slow-growing warty plaques and cauliflower-like lesions which may ulcerate. When ulceration has occurred, there is usually a secondary bacterial infection such as in our case. These fungi are found in wood and soil and enter the body following trauma and appear on exposed areas. They evoke a granulomatous response, with pseudoepitheliomatous hyperplasia. The fungal elements are rarely visible as sclerotic bodies, which are brown and extruded transepidermally. They appear as black dots on the surface of the lesion which is characteristic of chromoblastomycosis. The antifungal drugs of choice are itraconazole or terbinafine, given for a period of a year or more. Other treatment options include, oral potassium iodide solution, cryotherapy and excision of solitary lesion.

#### **Conclusion:**

Chromoblastomycosis is a forgotten mycosis, it manifests as slowly growing painless verrucous lesions. Characteristic black dots are seen on the surface of the lesions, representing the sclerotic bodies seen rarely on histology.



# Original study: The evolution of Polish adults' approach to respiratory-tract protection methods and the epidemiology of mask-related acne during and post-COVID-19 pandemic

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# Introduction & Objectives:

The study aims to illustrate qualitative and quantitative differences in users' approach to respiratory-tract protection methods and the epidemiology of masks-related acne (macne/maskne) depending on the phase of the COVID-19 pandemic, the type, frequency and daily time of wearing face masks in Polish adults.

# Materials & Methods:

This study was conducted in two phases, using online surveys (each questionnaire including 27 questions) distributed among Polish adults. In total, the study included 1274 participants with 934 respondents participating only in phase I and 340 respondents in phase I&II. The first questionnaire was distributed during the first stage of the COVID-19 pandemic in Poland (15 Nov - 18 Dec 2021) with the second following after easing the national COVID-19 restrictions (23 Mar – 04 Apr 2022). Since the majority of studies published on maskne demonstrated lack of cosmetics' effectiveness in its' treatment, the second survey was modified with the questions concerning cosmetics use changed\*\* to questions regarding the respondents' opinion on maintaining wearing masks as mandatory. Data collected from both surveys underwent statistical analysis (Statistica 13.1PL StatSoft, Tulsa, USA) and were compared.

# **Results:**

The study demonstrated statistically significant correlation between severity of restrictions, type of face mask used (cloth/surgical/shield) and the appearance of maskne in Polish adults. Also, change in respondents' habits was noted concerning type of face mask used during and post-COVID-19 pandemic, with cloth/surgical masks being the most popular options during peak stages of COVID-19 pandemic as opposed to the receding stage, when surgical masks have largely replaced current alternatives. No change in the location or type of acne lesions was recorded.

# **Conclusion:**

The conducted study confirmed the previously demonstrated correlation between the severity of acne lesions and wearing masks during the COVID-19 pandemic. It was one of the first studies to demonstrate regression of acne as a result of limiting the presence of the triggering factor. The results may serve in the future as a comparison in order to determine whether and to what extent acne changes disappear with the cessation of wearing face masks, and, moreover, to determine the number of patients requiring a dermatological care to fight off this non-obvious side effect of the pandemic.



# Crusted (Norwegian) Scabies in a four-Month-old boy due to the local application of corticosteroids for the wrong diagnosis

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# Introduction & Objectives:

Scabies is a global health problem affecting more than 300 million individuals annually, with the highest prevalence in children younger than 2 years.

Crusted scabies (CS) is a highly infectious hyperinfestation variant of scabies with up to millions of Sarcoptes scabiei mites present on the skin surface.

We present a case of a 4-month-old boy misdiagnosed for atopic dermatitis who recieved local corticosteroids causing scabies to evolve into crusted scabies.

#### Case report:

A previously healthy four-month-old boy was admitted to our service with a history of atopic dermatitis that had been present for two months,

At that time, he was treated by a topical application of corticosteroids daily, and instead of the improvement the lesions have spreaded to the entire body and became crusty, leading to his transfer to our dermatologgy department.

At the physical examination, the patient presented multiple papules, crusted and erythematous lesions disseminated in the body, mainly affecting the trunk and the scalp. Fissures in the back were also evident.

In the face of this situation, our main diagnostic hypothesis was crusted or Norwegian scabies.

The parents and the two brothers complained of important pruritus, and disseminated lesions compatible with scabie too.

A skin scraping was performed on the baby, and with microscopy, the presence of mites, eggs, and feces was confirmed.

The baby was treated with Benzyl Benzoate at Day 1 and Day 8, and the family members were treated with ivermectin; the entire house also disinfected. At the 3-week follow-up, we noticed the improvment of all family members.

## **Discussion:**

Crusted scabies, is a rare and highly contagious form of scabies, characterized by the presence of numerous parasites in the horny layer of the skin.

In most cases, it is associated with an underlying disease and mainly affects immunocompromised individuals.

The clinical presentation of scabies varies with age and immunologic status (normal host vs hereditary or acquired immunodeficiency), which often makes early diagnosis and treatment difficult.

Crusted scabies is an extremely contagious disease which is rarely reported in infancy, especially in healthy children, In a frensh study Fifteen (75.0%) children were treated with steroids before being diagnosed with scabies.

In our case, the wrong diagnosis led to the application of corticosteroids, which led to local immunosuppression and the

spreading of the scabies, causing a crusted scabies condition in a few months old boy. Fortunately, the diagnosis was made at the right time, and the child evolved well under local treatment.

# **Conclusion:**

Crusted scabies is a rare condition and even rarer in young children. The wrong diagnosis of scabies in babies can lead to a misplaced application of corticosteroids that can make things worse by creating immunosuppression and the spreading of the disease.



Cutaneous tuberculosis still a health problem in Morocco: a case reportH. Ammari F. Mohamed Sidi,S.baraz,Y. Zemmez, R. Frikh, N. Hjira Service de dermatologie vénérologie Hôpital militaire d'InstructionMohamed V de Rabat

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## Introduction & Objectives: :

Cutaneous tuberculosis is rare, with a frequency of 1-2%. Its anatomoclinical polymorphism and the difficulty of isolating the pathogen make it difficult to diagnose. It may be associated with other known localizations of the disease or, exceptionally, reveal them.

**Materials & Methods:** We report the case of a 37-year-old subject, with no previous history, who consulted for cutaneous gums. The history reports anorexia with weight loss. Clinical examination revealed a patient in fairly good general condition, apyretic and hemodynamically stable. Skin examination revealed 03 erythematous violaceous nodules, fistulated to the skin in places, 2 to 3 cm in diameter, located mainly on the legs, and others in the process of healing, located in the armpit and supra-clavicular region. Chest X-ray revealed an excavated opacity in the middle third of the left lung field. Chest CT revealed an excavated tissue process in the left lower lobe. Biological workup revealed hyperleukocytosis and positive CRP. Tests for Koch's bacillus in sputum and gastric tubes were negative. Bronchial fibroscopy revealed inflammation of the bronchial mucosa. The bronchial aspiration fluid was tested negative for BK. A biopsy of the skin lesion in the axilla was performed, and the histological study was in favor of a giganto-cellular granuloma with central caseous necrosis, located in the deep dermis.

**Results:** The patient was started on 2 RHZE/4RH anti-tuberculosis drugs. The course was favorable, with clinical improvement and healing of the skin lesions.

**Conclusion**: Cutaneous tuberculosis can be difficult to recognize. As the clinical aspects are multiple, cutaneous biopsy is recommended in the presence of any chronic and persistent cutaneous lesion. Diagnosis is mainly based on histology. It should be considered in the presence of lesions that are sometimes atypical, such as gum lesions, which require a search for a deep-lying tuberculous focus, which determines the duration of treatment.



# A Case of Hydroa Vacciniform-like Lymphoproliferative Disorder in Elderly Male in Korea

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# **Results:**

An 80-year-old male visited our clinic presenting erythematous papulovesicular lesions with necrotic eruption on his face, neck, upper trunk, and both upper arms that appeared six months ago. He occasionally complained of severe itching and was controlling the symptoms with oral steroids. Under clinical suspicion of hydroa vacciniforme-like lymphoproliferative disorder (HVLPD) and pemphigus foliaceus, a punch biopsy was performed. Histopathological examination showed perivascular and periadnexal infiltration of atypical lymphoid cells, and Epstein-Barr virus (EBV)-encoded ribonucleic acid in situ hybridization was positive in the proliferative lymphoid cells. Serum EBV deoxyribo nucleic acid load was more than 25,000,000 copies/mL, and T-cell receptor gamma gene rearrangement was negative. The patient was diagnosed as HVLPD and the skin lesions improved after the treatment with systemic methylprednisolone and minocycline.

HVLPD is an uncommon lymphoproliferative disease associated with EBV. It is characterized by papules and vesicles, primarily occurring in sun-exposed regions such as the face and forearms. The progression of HVLPD can vary, ranging from a slow and benign course of recurring skin lesions on sun-exposed areas that regress spontaneously, to a more severe outcome involving the development of systemic malignant lymphoma, ultimately leading to a fatal outcome. HVLPD is extremely rare in Western countries, and most studies to date have described HVLPD cases in children and young adults from Asian and Latin American countries. Herein, we report a rare case of HVLPD in elderly male in Korea.



# A Successful Terbinafine Treatment on Resistant Tinea Corporis to Azole Group Treatment

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## Introduction & Objectives:

Dermatophytoses are fungi infection generated by species of three genera – Tricophyton, Epdermophyton and Micropsporum. Dermatophytosis is one of the most recurring skin diseases worldwide, mainly centered in tropical countries like Indonesia, due to high humidity and poor personal hygiene. A wide variety of antifungal agents have been deemed effective for the treatment of these infections. Most common systemic agents used are from the antifungal class triazole, such as ketoconazole, fluconazole and itraconazole. Aside from systemic agents, common topical agents have been used, from the triazole class, such as ketoconazole. However, there are some cases in which patients do not respond to the treatment by the triazole class medication. Here, it is important to note that routine antifungal susceptibility testing is not being carried out in dermatophyte infections in Indonesia. Frequent and irresponsible corticosteroids use, and the misuse of antifungal medication without the doctor's supervision may also account for resistance.

#### Materials & Methods:

DW a 23 year-old male, was referred to the dermatology clinic, located inside a regional public hospital, for a suspected fungal infection, in December 2023. The principal clinical manifestation was chronic itchy skin, localized in the patient's shoulder and back, composed of lesion in the which grew centrifugally with peripheral erythematous scaly border and central healing. This issue had been a concern for 1 and a half year, and the patient had gone to various doctor for treatment purposes. Patient had been given 3 months therapy with systemic and topical ketoconazole as well as itraconazole, with no improvement. Furthermore, due to the lack of improvement in treatment, steroids have been put in place, as it is suspected that the patient lesion was caused by erythema nodulare centrifugum. After months of ineffective treatment, suspected lesion was sampled for skin biopsy to rule out cutaneous tuberculosis and deep fungal infection.

#### **Results:**

A sample of the lesion was received by the laboratory for examination. Under the microscope, there are multiple chronic inflammatory cells, with groups of fungi hyphae in the outermost layer of the epidermis, stratum corneum. It also showed, neutrophils scattered throughout the tissue sample. Histologically, it is in accordance with the findings of Tinea Corporis.

After, the skin biopsy result came out, terbinafine cream therapy was used, as resistance to triazole class medication was suspected. 1 week after the therapy with terbinafine cream, significant improvement was observed. Itchiness was significantly reduced, as with the erythematous lesion has subside significantly.

#### **Conclusion:**

In conclusion, this case showed that ineffective treatment with triazole group in patient with classic symptoms of dermatophytoses, can be due to the resistance in triazole group medication. Therefore, skin biopsy and trial of other classes of medication can be used to reduce and eliminate the symptoms.



## A rare clinical conjunction: Erysipelas revealing hypothyroidism: A case report

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#### Introduction & Objectives:

Erysipelas, an acute cutaneous infection primarily caused by Group A beta-hemolytic Streptococcus, is a well-established medical entity. However, its association with hypothyroidism remains a scarcely explored subject in the medical literature.

This case report aims to document a rare and potentially significant clinical presentation where erysipelas manifests in a patient with underlying hypothyroidism.

## **Case report:**

A 45-year-old patient, with a family history of goiter, was admitted with an acute febrile erythematous swelling of the left leg evolving over five days. The patient denied nonsteroidal anti-inflammatory drug use but presented with dyspnea and chills. Clinical examination revealed stable hemodynamics, NYHA II dyspnea, waxen complexion, psychomotor slowing, and an inflammatory plaque on the left leg extending to the dorsum of the foot, topped with serous vesiculo-bullous lesions. Significant non-pitting edema involved both lower limbs, abdominal wall, flanks, and the lower two-thirds of the back, with a positive Stemmer sign, macerated intertrigo, and plantar desquamation. Pericardial friction rub, basal crepitant rales, and antero-septal flattening on ECG were noted. Laboratory investigations showed leukocytosis with neutrophilia, high C-reactive protein levels, and deep venous Doppler ultrasound revealing extensive soft tissue infiltration in both thighs and legs. A markedly elevated TSH of 19 prompted urgent echocardiography, disclosing circumferential moderate pericardial effusion. A thoracic-abdominal-pelvic CT scan revealed bilateral pleural effusion, moderate pericardial effusion, non-distended bladder surrounded by perivesicular edema, pelvic fluid collection, and extensive abdominal-pelvic soft tissue infiltration. The patient received general antibiotic therapy, levothyroxine titrated to 125 mcg/day, prophylactic anticoagulant, pleural drainage, and pericardial effusion monitoring. Clinical and biological evolution was favorable.

# **Conclusion:**

Erysipelas, often caused by Streptococcus pyogenes, is a bacterial cutaneous infection with increased incidence in the elderly, immunocompromised, and those with chronic diseases or lymphatic circulation alterations. Clinically presenting as an acutely febrile circumcised red plaque, its treatment primarily involves general antibiotic therapy. The occurrence on a hypothyroid background clinically manifests with fatigue, weight gain, constipation, dry skin, cold sensitivity, and sleep disturbances, with potential mental lethargy and depression. Diagnosis relies on thyroid hormone assays, and treatment involves substitutive hormone therapy.

The simultaneous evaluation of erysipelas and hypothyroidism could offer significant clinical value, emphasizing the need for an integrated approach to better understand and treat these interconnected conditions.



cutaneous lechmaniasis still a health problem in Morocco about a case F. Mohamed Sidi, Y.Zemmez, R.Frikh, N.Hjira Department of Dermatology and Venereology Mohamed V Military Training Hospital, Rabat

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# Introduction & Objectives:

Leishmaniasis is a group of parasitic diseases caused by flagellate protozoa of the genus Leishmania, with a tropism for cells of the reticuloendothelial system, and transmitted to many mammalian species by the bite of an insect vector = the sandfly. This tropism determines several forms of the disease, with varying prognoses. Therapeutic difficulties are particularly acute in diffuse and cutaneomucosal forms. These treatments have several disadvantages: they require hospitalization for several weeks and have marked side effects. But the major problem with antimony-based drugs is the growing emergence of resistant strains of parasites.

## Materials & Methods:

We report the case of a 42-year-old woman, with no previous history, who consulted us for a 9-month history of nonpainful, pruritic facial ulceration resistant to antibiotic treatment. The patient's history revealed a stay in an endemic area without protective measures. Clinical examination revealed a patient in relatively good general condition, apyretic and hemodynamically stable. Skin examination revealed a "wet" infiltrated papulo-nodular lesion on an erythematous background with a central +/- deep ulceration with a sanitized background showing papillomatous buds, bordered by a peripheral bulge, mainly located on the chin of the face. Dermoscopy revealed erythema, hyperkeratosis, crusts, ulceration, yellow tears = granulomas, salmon-coloured ovoid structures = granulomas and stippled vessels, then a hypochromic peri-lesional halo. A smear with needle puncture was taken, and a skin biopsy confirmed the diagnosis of stage I cutaneous leishmaniasis.

#### **Results:**

The patient was started on intra-lesional glucantine 1 ml per session at the four cardinal points of the lesion twice a week for four weeks. The course was favorable, with clinical improvement and healing of the skin lesions.

**Conclusion:** \*\* Cutaneous leishmaniasis can be difficult to recognize due to its clinical polymorphism and multiple differential diagnoses, so a skin biopsy is recommended in the presence of any persistent, antibiotic-resistant chronic skin lesion. Diagnosis is based mainly on smears and histology, with compulsory reporting of the disease.



# Isolated cutaneous Cryptococcus infection successfully treated with systemic terbinafine in a 70 year-old male patient with prostate carcinoma

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# Introduction & Objectives:

Cryptococcus is a capsulated yeast fungus that causes opportunistic infections. It has been observed that these fungi can infect both immunocompromised individuals and those with sufficient immune systems (1). In addition to the strong tropism of Cryptococcus species for the central nervous system, they also exhibit cutaneous tropism. The term localized cutaneous cryptococcosis is used to describe skin-limited lesions without systemic involvement. This condition can arise through hematological dissemination or direct inoculation of the fungus into the skin. It is very rare for cutaneous infection, the third most common manifestation of cryptococcosis, to be the primary site of involvement.

# Materials & Methods:

A 70-year-old male patient with a known diagnosis of prostate cancer undergoing radiotherapy presented to the outpatient clinic with erythema on the dorsum of left hand for 4 months. The patient described exacerbation of the lesions after using the topical corticosteroid treatment. Dermatologic examination revealed; erythematous violaceous, mild scaly papules on the dorsum of the left hand (Figure 1).

# **Results:**

There were no abnormalities in his laboratory, and no involvement was detected on lung X-ray and brain computed tomography examination in the imaging studies. Mycobacterial tissue culture was negative. Biopsy was performed with a preliminary diagnosis of tinea incognito, Majocchi's granuloma, and deep mycosis. Histopathological examination revealed; thick-walled, specific fungal structures stained with PAS and Silver (Figure 2, Figure 3). Consistent with Cryptococcus, supporting the diagnosis of deep mycosis. Terbinafine 250 mg/day orally was initiated with a preliminary diagnosis of tinea incognito. The patient was referred to Neurology Department and Pulmonology Department , however no systemic involvement was detected. After systemic terbinafine treatment significant clinical improvement was seen in his lesions(Figure 4).

# **Conclusion:**

Cutaneous cryptococcal infection may present with a variety of skin manifestations, including acneiform lesions, vesicles, nodules, ulcers, pustules, and cellulitis. Cutaneous cryptococcosis has no characteristic skin lesions; Therefore, biopsy is the most important tool in diagnosis. The preferred treatment for cryptococcal infection is determined by the anatomical site of involvement and the immune status of the host. Amphotericin B, fluconazole and itraconazole are primarily used in the treatment of isolated cutaneous cryptococcal infection. Studies have shown that terbinafine is effective when used in combination or alone in treatment. In this report, a case of localized cutaneous cryptococcosis that responded to systemic terbinafine treatment is presented.



## Mucocutaneous leishmaniasis of infants: a case

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# Introduction & Objectives:

Leishmaniasis is an anthropozoonosis caused by a flagellate protozoan of the genus Leishmania. There are three clinical forms: visceral leishmaniasis (VL), cutaneous leishmaniasis (CL) and mucocutaneous leishmaniasis (MCL). The CM form, which is epidemic in regions of Latin America, has never been described to our knowledge in Algeria. We report a new case that resisted treatment.

# Materials & Methods:

An infanttwo months old female presented with ulcero-crusted nodules numbering eight on the screwage. The largest was located on the upper lip extending onto the semi-mucosal side and two on the left forearm. The remainder of the examination was unremarkable and did not detect any satellite or distant lymphadenopathy. We noted the notion of staying in Biskra (leishmaniasis endemic area in southern Algeria). Direct examination on lesional smear stained with GrenwaldGiemsa Honey revealed leishmania. The biological assessment (hemogram, hepatitis B and C and HIV serology, inflammatory and biochemical standard) was normal. Three courses of clarithromycin at a dose of 15 mg/kg/day ten days per month for three months, combined with two cryotherapy sessions, did not allow any improvement. He then benefited from a course of meglumine antimoniates in daily intramuscular injections for 15 days at a dose of 30 mg/kg/day with good tolerance. Partial disinfiltration of the lesions was noted. Other applications of liquid nitrogen were then recommended.

# **Results:**

MCL is endemic in the countries of Central and South America (New World) with an estimated frequency of 9% in Brazil. In the Old World (Africa and Europe), MCL is rare and most cases partially respond to conventional treatment, which was the case of our patient. They classically occur in immunocompromised subjects, leading to extensive and mutilating lesions, which was not observed in our patient. The effectiveness of clarithromycin in the treatment of cutaneous leishmaniasis has been proven, a retrospective study on 64 cases of children carried out between 2016 and 2022 showed a favorable evolution and good clinical-biological tolerance in 96.8% with rare cases of partial response or resistance. A case of endonasal MCL resistant to treatment with intramuscular meglumine antimoniates has been reported. The evolution was favorable after initiation of five sessions of cryotherapy, which justified the need for other applications of liquid nitrogen in our patient.

# **Conclusion:**

We report a new case of MCL in Algeria in a two-month-old infant with a partial response to clarythromycin and meglumine antimoniates associated with cryotherapy. The search for new strains of parasites responsible for MCL in our country or the study of the development of resistance in classic strains would have been interesting.



# Cutaneous leishmaniasis in infants : Exploring Epidemiology, Clinical Features, and Therapeutic Aspects

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## Introduction & Objectives:

In Tunisia, cutaneous leishmaniasis (CL) exhibits an endemo-epidemic pattern affecting individuals of all age groups, including infants. This study aims to determine the epidemiological, clinical, and therapeutic characteristics of CL in infants.

## Materials & Methods:

We conducted a retrospective study between January 2016 and December 2023 enrolling all cases of CL in infants aged 0 to 2 years, confirmed by parasitological examination (dermal smears and/or PCR-RFLP).

#### **Results:**

Over 8 years, we collected 231 cases. The average age was 12.7 months, with a sex ratio M/F of 1.3. Consultations were predominantly during the autumn-winter period (60.2%) and the average consultation delay was 54 days (7-180 days). Familial cases were noted in 58.7%. Lesions were multiple in 58.9% of cases, with an average of 3.3 lesions and an average size of 1.7 cm. Clinical manifestations included ulcerative-crusty (76.3%), papulo-nodular (18.2%), lupoid (3%), or erysipeloid (2.5%) forms. Lesions involved the face (60%), limbs (35.2%), and trunk (2.9%). Cryotherapy was the preferred treatment, either used alone (38.5%) or in combination with antibiotics (36.4%), notably clarithromycin (88%). Glucantime® was prescribed in 16.5% of cases, administered either intralesionally (GIL, 7.9%) or intramuscularly (GIM, 92.1%). The average treatment duration with GIM was 14 days. Adverse effects included skin rash (n=1), erythema at the injection site (n=1), abdominal pain (n=2), lymphopenia (n=1) and elevated pancreatic enzymes (n=4). Clinical improvement was achieved after an average of 50 days.

#### **Conclusion:**

Unlike other Tunisian and Moroccan series focusing on CL in children, we observed a higher prevalence among males. The incidence of multiple forms in our population exceeded that reported in an Iranian series (58.9% vs. 48.7%). Despite its frequent recurrence in children, we did not document any cases of relapse in infants. The limited use of intralesional glucantime (GIL) can be attributed to the elevated occurrence of multiple forms. The delayed time of consultation, the significant number of familial cases, involvement of the face and favorable tolerance to Glucantime® align with existing literature.



## Fungal melanonychia due to non-dermatophyte mould: Case Report

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## Introduction & Objectives:

Melanonychia, from Greek words "melanos," meaning black, and "onyx," meaning nail, is a dermatological disorder caused by melanocyte activation and/or proliferation, which results in brown-to-black nail pigmentation.

Fungal melanonychia, or dark nail pigmentation caused by fungal infection, is an uncommon nail disease with a worldwide prevalence of 5.5%. Though dermatophytes and yeasts are associated with fungal melanonychia due to melanocytic activation, non-dermatophyte molds can also activate melanocytes with similar symptoms.

#### **Materials & Methods:**

We describe a case report of a woman with a long history of black pigmentation alterations in her feet's nails. A bibliographic review was conducted in the PubMed database using the search terms (melanonychia) AND (onychomycosis), resulting in 23 findings, with 15 publications being included in the review.

#### **Case Presentation:**

A 61-year-old woman with long-standing feet nail plate color alterations went to the dermatology department. Her medical record includes osteoporosis treated with denosumab for 12 years. Her current condition started 20 years ago with changes in the color of her nail plate, which turned yellowish and eventually black. She underwent multiple treatments, such as topical miconazole and oral fluconazole, in many cycles, but there was no improvement.

During the dermatological examination, a female with phototype III was identified with dermatosis affecting the nail plates of feet, characterized by wide longitudinal hyperpigmented black bands covering almost the entire nail of right great toe, and similar bands covering approximately 30% of the nail of left great toe. Additionally, the patient presented hyperkeratosis, xanthonychia, and distal onycholysis in all 10 nail plates. She denies any other evidence of systematic involvement.

Differential diagnoses have been investigated, such as fungal and bacterial infections, racial or drug-induced melanonychia, inflammatory disorders, or melanoma. The mycological analysis with nail culture on Sabouraud Dextrose agar detected the presence of Aspergillus spp. In addition to topical oxiconazole applied every 12 hours, the treatment regimen comprised itraconazole 200 mg once daily for 7 days in three-month cycles.

#### **Conclusion:**

Fungal melanonychia relates to the dark nail discoloration caused by onychomycosis. One of the most challenging forms of onychomycosis to diagnose is melanonychia produced by nondermatophyte moulds, due to its clinical resemblance to melanocyte-related melanonychia. With a prevalence of 44.3% among isolates, Aspergillus emerged as the most prevalent nondermatophyte mold strain, followed by Scopulariopsis and Fusarium.

Aspergillus is an opportunistic nondermatophyte mold, of the phylum Ascomycota. It included 837 species of fungi, including 40 onychomycosis-causing Aspergillus species. This can cause lateral subungual, complete dystrophic, and superficial white or black onychomycosis patterns, often with dystrophy, and hyperkeratosis. Uncertain diagnostic criteria.

Clinical characteristics, microscopic examination, culture, PCR, or a combination are utilized to diagnosis. Resistance makes it difficult to choose the best Aspergillus therapy but can be treated with broad-spectrum antifungals such itraconazole and efinaconazole and various topical combinations.



#### Lazarine leprosy - A continuing scourge

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# TITLE: Lazarine leprosy - A continuing scourge

## Introduction:

Leprosy is a chronic infectious disease caused by Mycobacterium leprae, primarily affecting the skin and peripheral nerves with varied clinicopathological presentations. The relatively uneventful chronic course of the disease is interrupted by immunologically mediated acute and sub-acute inflammations known as reactions. The lepra reactions commonly witnessed in clinical practice are type 1 and type 2 lepra reactions. Lazarine leprosy, namely, ulcerating type 1 reaction, was first described in 1852 by Raphael Lucio and Ignacio Alvarado. Type 1 lepra reaction is a cellmediated immune reaction wherein the preexisting lesions become erythematous, edematous, and rarely ulcerate as in lazarine leprosy. In 1930, in the Fifth International Congress of Leprosy, it was concluded that lazarine leprosy can occur in tuberculoid pole because of high inflammation and in lepromatous pole because of high bacillary load. Cochrane described Lazarine leprosy as a chronic progressive form of erythema nodosum leprosum where the patient develops subcutaneous nodules that ulcerate with a distressing general condition (Cochrane 1964). While , according to Ramu and Dharmendra (1978) lazarine leprosy occurs near tuberculoid end of borderline spectrum of leprosy in debilitated patients. The term 'Lazarine' is derived from the name of a beggar, Lazarus in the Bible thus used in conjunction with the beggar like state of the patient in this disease as a result of debilitating ulcers.

Triggers such as infection in the presence of malnutrition result in immunological breakdown of cellular and humoral immunity which along with intense tissue oedema secondary to reduced osmotic pressure increases the risk of ulceration. Clinically it is characterized by scarlet spots which later darken and ulcerate and usually heal with atrophic and hypochromic scars with a thin hyperpigmented border. Diagnosis at an early stage is absolutely essential for earlier treatment to prevent leprosyrelated disabilities.

# Materials & Methods:

We report a known case of lepromatous leprosy presenting with acute constitutional symptoms and tender crops of erythematous papulopustular and necrotic lesions which rapidly ulcerated, few of them infested with maggots. She was admitted and given injectable dexamethasone, broad spectrum antibiotic regimen and oral thalidomide and clofazimine with supportive care and diligent wound dressing in addition to MDT. Despite initial improvement her deterioration took a morbid turn leading to death.

# **Results:**

Despite the advent of the much hyped multidrug leprosy therapy and our attempts to eradicate leprosy, the Lazarine form remains a cameo presentation and the ultimate curse which reduces the status of the patient to a mendicant which is exemplified in this case report.

#### **Conclusion:**

Fatal incidents can still happen in leprosy, the causes for which are poorly understood. It also shows that our understanding of reactions is far from complete. Since reactions can occur in those who have completed multidrug therapy, we wish to emphasize that surveillance is still an important part following control and eradication of leprosy.



# Microsporum audouinii, an emerging etiological agent of tinea capitis in children: a 5-year clínical and epidemiological study

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**Introduction & Objectives:** The prevalence of *Tinea Capitis (TC)* has increased with a shift in the causative dermatophytes. *Microsporum audouinii*, an anthropophilic fungus is endemic in Africa. It became autochthonous in our country since 2017, when two patients, who had never travelled abroad, were reported. We aim to describe the clinical-epidemiological and mycological characteristics of this entity in our hospital.

**Materials & Methods:** An\*\* observational, descriptive cross-sectional study was carried out including children from our mycology laboratory database ,diagnosed with *TC* (all species), from 2019 to 2023. This enabled the determination of the prevalence of TC caused by *M. audouinii.* The variables for the clinical and sociodemographic characteristics were extracted from the medical records. Statistical analysis was performed by calculating absolute frequencies (n) and relative frequencies (percentages).

**Results:** A total of 119 cases of TC were diagnosed by direct mycological examination and culture from 2019 to 2023, of which 16 were caused by *M. audouinii*. There was a significant increase in the prevalence of *M. audouinii*, from 4.5% in 2019 to 44% in 2023, placing it in third place among the etiological agents of TC. The sample included children from 3 to 14 years old, predominantly male subjects, with low socioeconomic *status*, no history of previous travel. The clinical presentation is mainly non-inflammatory *tinea*, with the presence of multiple and scaly plaques, all with positive direct mycological examination, identifying ectothrix-type parasitism. Under Wood's lamp examination, blue-green fluorescence was observed in all patients undergoing the test. Concomitant association with *tinea corporis* was identified in only 3 patients.

In trichoscopy, specific structures of *TC* such as Morse code like-hairs were identified, as well as diffuse perifollicular scaling, broken hairs, and black dots. In the culture microscopy, species-specific structures such as pectinate hyphae, nipple-ended terminal chlamydospores, intermediate chlamydospores, sparse fusiform macroconidia of various sizes with central constriction, and small spiny projections on the surface were identified, indicating *M. audouinii* as the mycological agent. To confirm the suggested identification, growth on boiled and sterilized polished rice was evaluated. *Microsporum canis* was included as a control. It presented poor growth and scarce brownish pigment, while the *M. canis* sample showed abundant growth.

**Conclusion:** We identified a change in the epidemiological profile of the agents causing*TC*, probably due to migrations, changes in lifestyles, urbanization, observing an increase in infections by anthropophilic fungi. Therefore, strategies of greater surveillance, such as screening in the patient's social environment (family, school, neighbourhood). Adequate detection and treatment are essential, otherwise, if neglected, these infections can reach epidemic proportions. We emphasize the importance of trichoscopy, which exhibits higher sensitivity than direct mycological examination in *TC* diagnosis. Since culture results may take up to 6 weeks, delaying treatment initiation, trichoscopy proves valuable for primary diagnosis, enabling treatment initiation before culture results, potentially reducing disease incidence.



# Leishmaniasis recidivans by Leishmania tropica and Leishmania infantum in Morocco

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**Introduction & Objectives:** Cutaneous leishmaniasis (CL) is an infectious parasitic disease caused by a flagellate protozoan of the genus Leishmania. Recurrent cutaneous leishmaniasis or "leishmaniasis recidivans" (LR) is a rare and chronic form of CL (3 to 10% of cases) that occurs after a cured *Leishmania* infection. It is generally associated with *Leishmania tropica* and mainly described in the Old World. To our knowledge, no Moroccan study has reported this unusual form of CL in the literature. The aim of our work was to retrospectively analyze patients with CL and to verify their correlation with the World Health Organization (WHO) definition of LR.

**Materials & Methods:** This was a retrospective analytical study of all confirmed cases of CL in our Dermatology Department, between January 2010 and December 2023. Cases suggesting the diagnosis of LR were selected according to the following WHO definition: appearance of papular lesions months to years after clinical healing of the initial lesion, defined by regression of the evolving lesion, in or around the scar of the healed primary lesion.

**Results:** Four hundred and five patients with CL were confirmed, of whom 11 (2.72%) met the inclusion criteria with a sex ratio M/F of 1.75. Patients' age ranged from 4 to 72 years (mean age = 46.2). Initial lesions were papular (4 patients) and papulo-nodular (7 patients) with central ulceration (5 cases). Lesions (number ranging from 1 to 4) were located on the face (4 cases), upper limbs (7 cases) and/or lower limbs (2 cases). Identification of *Leishmania* species by Internal Transcribed Spacer 1 Polymerase Chain Reaction-Restriction Fragment Length Polymorphism (ITS1 PCR-RFLP) revealed *L. tropica* (4 patients) and *L. infantum* (1 patient). Four patients received well-conducted intralesional meglumine antimoniate (MA), 3 patients received incomplete treatment with MA, 1 patient received oral clarithromycin, 1 patient was treated with local antibiotic therapy and 2 patients were lost to follow-up. The onset of new LR lesions ranged from 3 to 24 months (mean = 10.6 months) and their number from 1 to 4 lesions per patient. They were papulo-lupoid (6 patients), papulo-nodular (4 patients) and papular (1 case). Location was at the scar of the initial lesion (7 patients), around the lesion's scar (3 patients), and at a distance (right forearm) in 1 patient who had the primary lesion on the homolateral arm. All patients progressed favorably after treatment: intramuscular MA (5 patients) and fluconazole in case of unavailability or intolerance to MA (6 patients).

**Conclusion:** LR is characterized by the recurrence of papular or nodular lesions, months or years after its healing. In our study, 3 patients received incomplete treatment of initial CL lesions, 2 patients were lost to follow-up without receiving treatment, and 1 patient was treated with local antibiotic therapy. The appearance of new LR lesions could be explained by the absence or non-observance of appropriate treatment. 63.6% of LR patients (7 cases) had recurrent lesions at the primary scar, suggesting a relapse phenomenon rather than reinfection. ITS1 PCR-RFLP identified *L. tropica* (4 patients) and *L. infantum* (1 patient). To our knowledge, LR has never been associated with*L. infantum* before. According to the WHO definition of LR, we confirmed that 2.72% of CL patients (11 cases) represented cases of LR caused by *L. tropica* but also by *L. infantum*. Our series represents the first study reported in Morocco and one of the largest described in North Africa.





## Atypical presentation of herpes zoster with ulceronecrotic lesions in an oncologic patient

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**Introduction & Objectives:** Herpes zoster is caused by herpesviridae 3, the varicella-zoster virus (VZV). The cutaneous manifestations occur after the dormant viral infection, involving the cranial nerve or sensory root ganglia, is re-activated and spreads orthodromically from the ganglion, via the sensory nerve root, to the innervated target tissue. The virus reactivates when the cell-mediated immunity declines, as seen in the elderly and immunosuppression.

Herein, we report an uncommon presentation of herpes zoster with ulcero-necrotising lesions in a patient diagnosed and treated for colon adenocarcinoma.

**Materials & Methods:** We present the case of a 67-year-old male patient who was referred to dermatology from oncology for a unilateral rash with multiple ulcerative and necrotising lesions, surrounded by an erythematous halo, with mild pain, in evolution for 5 days.

**Results:** A 67-year-old male presented with an acute onset of a unilateral rash in evolution for about 5 days. The rash spread from the midline of the posterior left trunk to the lateral side and stopped at the midline of the left umbilical region. The patient related a tingling sensation five days ago followed by the first ulcerative lesion two days later. He had no prior history of a similar rash.

His background was significant for colon adenocarcinoma diagnosed in 2022, treated with laparoscopic excision of the tumour, and followed by 12 cycles of FOLFOX-4 and 6 cycles of FOLFIRI+Cetuximab.

Physical examination showed a patient with an apparent good state of health, no fever, with no other physical modifications or subjective complaints.

The zosterian eruption was spreading over the zone of T11-T12 left dermatomes and consisted of multiple necrotichemorrhagic ulcerations surrounded by an erythematous halo, with no history of vesiculation and only mild pain.

Blood tests revealed iron deficiency anemia and inflammatory syndrome with leukopenia, lymphocytosis and monocytosis.

The patient followed treatment with oral acyclovir, non-steroidal anti-inflammatory drugs (NSAIDs), neurotrophic supplements, and topical cream with antiseptics, antibiotics and analgesics. The evolution was favourable, with remission of the ulceronecrotic lesions. Although the lesions have been healed, post residual hyperpigmented scars have remained.

**Conclusion:** The case presented had an acute onset with necrotising lesions caused by cancer therapy induced immunosuppression, with only mild pain despite the clinical aspect and with favourable evolution.



## Herpes gladiatorum complicated with lymphangitis in a 9-year-old boy: a case report

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## Introduction & Objectives:

Herpes gladiatorum usually occurs among wrestlers, football and rugby players as a result of direct contact with skin lesions caused by herpes simplex virus. Classical locations include the face, neck, and arms. It typically presents with a vesiculopustular rash on an erythematous base, similar to HSV in other locations, and may be misdiagnosed as impetigo, folliculitis, or nummular eczema. Herpetic lymphangitis is a rarely reported complication of herpetic hand infection.

## Materials & Methods:

We report a rare case of Herpes gladiatorum complicated with lymphangitis in a 9-year-old wrestler, which appeared on the second day after competition.

#### **Results:**

A 9-year-old boy initially presented to our clinic with a suspected left-hand impetigo. Two days prior, he participated in a wrestling competition. Physical examination revealed a painful grouped haemorrhagic vesiculopustular rash on the left wrist and erythematous streaking on the left forearm. HSV infection was suspected, and PCR samples were obtained from an unroofed vesicle. These samples confirmed the presence of HSV type 1. After 5 days of treatment with oral Valacyclovir (500 mg bid), the lesions resolved completely.

# **Conclusion:**

Lymphangitis is a rarely reported complication of HSV. Our report aims to increase clinicians' awareness of this possible complication and broaden the initial differential diagnosis, especially considering the atypical presentation of HSV



## bacterial toe web infection in soldiers

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## Introduction & Objectives:

Foot intertrigo is a common dermatological condition among soldiers, particularly those deployed in countries with hot and humid climate or engaged in laborious physical activities. Tinea pedis is the most frequent etiology. Bacterial intertrigo is underdiagnosed. The aim of this study was to describe inpatient epidemiological and clinical characteristics of this affection in military personnel.

## Materials & Methods:

We conducted a retrospective study of all patients admitted for suspicion of foot bacterial intertrigo to our dermatology department during a period of five years (2018-2022). Data were obtained from patients' medical records.

## **Results:**

In total, we noted 35 patients admitted for foot intertrigo. Fourteen were attributed to recalcitrant bacterial origin. The mean age was  $31.7 \pm 10.7$  years. All patients were male. Before presenting in our department, they were all treated with antifungal agents and seven treated with topical steroids. Clinical manifestations included extended macerated forms, erosions involving more than two interdigital spaces and malodorous discharge. Bacteria cultures were realized in nine cases. Pseudomonas aeruginosa were isolated in six cases and Staphylococcus aureus in three cases. The reasons for admission were severity of the local condition (n=12) and failure of outpatient treatment (n=2). All patients were treated with antiseptic and local gentamicin application with rapid healing. The mean length of stay was  $5 \pm 1.9$  days. We observed a resurgence of foot bacterial intertrigo during summer and autumn (p<10-3). Four patients were readmitted for recurrences. Wearing military shoes and bad hygiene were the major predisposing factors.

## **Conclusion:**

Bacterial toe web infections are mainly due to gram-negative bacteria. They should be suspected in cases of severe maceration resistant to antifungal and steroid agents. They are considered a challenge in military settings, affecting both health and operational readiness of soldiers. Topical application of gentamicin is an effective treatment. Hospitalization may be a good strategy adjusted to the needs of military personnel to shorten their stay and accelerate their recovery.



## Cutaneous Leishmaniasis due to Leishmania infantum in Morocco : an emerging species

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## Introduction & Objectives:

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.

#### **Materials & 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 violaceousred 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.

# **Conclusion:**

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



# A case of mycetoma of the foot in a patient narrowly saved from amputation

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## Introduction & Objectives:

Mycetomas are chronic mutilating infections, endemic in dry tropical regions, which may be caused by bacterial (actinomycetomas) or fungal (eumycetomas) pathogens.

Distinguishing between actinomycetomas and eumycetomas is very tricky at the clinical phase and requires recourse to biological tests, but is essential because of their radically different treatments.

We report the case of a mutilating actinomycetoma of the foot, which healed under medical treatment alone despite the principle indication for amputation.

#### **Materials & Methods:**

**Results:** 

# **Case presentation :**

A 26-year-old patient from a rural background, farmer by profession, chronic smoker, consulted our department for skin lesions on the left foot that had been slowly, progressively and indolently developing for almost 3 years. The anamnesis noted a habit of barefoot walking and contact with thorny plants; while the dermatological examination revealed a polyfistulized multinodular placard involving the sole, lateral edges and dorsum of the left foot, with the release of a serohematic fluid containing white granules visible to the naked eye. An infectious origin was suspected first, so a threepart skin biopsy was performed with a triple mycological, bacteriological and histological study, which came back in favour of a Nocardia actinomycetoma. A locoregional extension assessment was therefore requested, using CT and MRI scans of the foot, and revealed an underlying musculoaponeurotic and bony involvement. Medical treatment was then initiated, combining disulone 100mg/d with triple antibiotherapy based on amoxicillin-clavulanic acid 3g/d, rifampicin 600mg/d and trimethoprim-sulphamethoxazole 1600/320 mg/d. Given the disappointing clinical and radiological results after 9 months of well-conducted medical treatment, the case was discussed at a multidisciplinary oncology-traumatology-dermatology consultation meeting, where amputation was initially proposed, before concluding to the possibility of a more conservative treatment. The patient therefore underwent surgical excision of the lesion down to the plantar fascia, combined with intra-operative infiltrations of amoxicillin-clavulanic acid and gentamicin, followed by a deferred skin graft. The above medical protocol was maintained for one year after surgery, before stopping the triple antibiotherapy. The evolution was spectacular, both clinically and radiologically, with complete remission and good healing of the skin graft with a follow-up of almost 2 years.

#### **Conclusion:**

The fundamental step in the diagnosis of mycetoma is undoubtedly the identification of the pathogenic agent involved, in order to initiate appropriate treatment, which must always be medical in the first instance, using antibiotic or antifungal

agents, even in advanced forms; surgery being discussed only at a later stage. However, it remains difficult to judge the medium- and long-term efficacy of treatment, given that there are currently no biological criteria for healing. Moreover, recurrences after treatment are frequent, especially in cases of eumycetoma. Therefore, extended follow-up after clinical remission is essential, but sometimes difficult to implement in patients from isolated rural areas.



## admissions for bacterial skin diseases in soldiers

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## Introduction & Objectives:

Common bacterial skin diseases are frequent and benign. However, they present a significant challenge to military personnel due to their potential to impair combat readiness and overall health. The aim of our study was to investigate and identify the dermatosis for which soldiers are admitted in a dermatology department.

# Materials & Methods:

We conducted a retrospective study of all patients admitted for bacterial dermatosis to our dermatology department during a period of five years (2018-2022). Data were obtained from patients' medical records.

## **Results:**

In total, 285 admissions were evaluated, with 91% male patients. The mean age was 30 years. The main reason for admissions was erysipelas (46%, n=131) followed by ecthyma (20.7%, n=59) and extensive impetigo (15.4%, n=44). Lesions appeared mainly in the lower limb (90% of cases). Interdigital bacterial intertrigo accounted for 4.9% (n=14) of the hospitalizations. We noted 27 patients admitted for urethritis (9.5%), eight for staphylococcal infection of the face (2.8%) and two for secondary syphilis (0.7%). All patients recovered after systemic and/or local antibiotic treatments. Amoxicillin and clavulanic acid were prescribed in 74.7% (n=213) and pristinamycin in 7.4% (n=21) of all admissions. Antiseptic and topical antibiotics were used in 7.7% of cases (n=22). Patients with urethritis received ceftriaxone and doxycycline. Benzathin penicillin G was used in cases of secondary syphilis. A statistically significant association was only found between ecthyma and readmission (p=0,003). The mean length of stay was 6 days. Admissions for bacterial skin diseases were more frequent in autumn and summer (p<10-3).

## **Conclusion:**

Military personnels are particularly susceptible to bacterial infections due to close living quarters, physical exertion, and exposure to environmental factors. Further research is warranted to explore preventive strategies and optimize treatment approaches.



# Leishmania Case Mimicking Sarcoidosis Clinically and Basal Cell Carcinoma Dermoscopically: A Fascinating Case

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## Introduction & Objectives:

Cutaneous leishmaniasis (CL) is called "the great imitator," because it can mimic almost all types of dermatoses. These similarities lead to morbidity as a consequence of misdiagnosis and inappropriate treatment, but rapid methods like smear can expedite this process to conclude with treatment. In this case, we will discuss the rapid diagnosis and treatment process of an erythematous papule on the retroauricular region and upper arm, clinically resembling sarcoidosis and dermoscopically resembling basal cell carcinoma.

## Materials & Methods:

A 27-year old male patient living in non-endemic Turkey's area presented with a complaint of a painful wound on the right side of his neck and upper arm persisting for three months. The patient didn't respond to oral ciprofloxacin and topical fusidic acid given at an outside clinic. It has been learnt that he had been working as a soldier in Syria. On dermatological examination, a 2x1 cm erythematous plaque on the right retroauricular region, and three erythematous papules with hemorrhagic crusts on the right upper arm were detected. Dermoscopic examination revealed branched vessels on erythematous base and yellow tears (Figure 1).

#### **Results:**

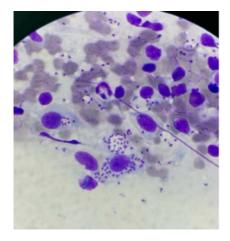
In the preliminary diagnosis; basal cell carcinoma, maculopapular sarcoidosis, secondary syphilis papule were considered. VDRL and TPHA tests were negative. Using the dermal scraping method, smears were obtained and examined under the microscope at a magnification of x100, revealing Leishmania parasites both within histiocytes and extracellularly. Many leishmania amastigotes, which resemble a swarm of bees, have been observed in the Tzanck smear (Figure 2). As a diagnosis of cutaneous leishmaniasis, intralesional meglutamine antimonate therapy was started.

# **Conclusion:**

Cutaneous leishmaniasis can present with symptoms that mimic various inflammatory, infectious, and malignant dermatological conditions. While the majority of cutaneous leishmaniasis lesions exhibit typical features and are promptly diagnosed, in the case of atypical clinical presentations especially in people living in nonendemic areas, the diagnosis may be difficult and may lead to delay in the diagnosis. In this case, the emphasis was on revealing how quickly the disease could be diagnosed using dermatoscopy and Tzanck smear instead of a biopsy.



**Figure 1:** Dermoscopic features of cutaneous leishmaniasis, erythematous plaque located on the right retroauricular region. Branched vessels on erythematous base and yellow tears were observed.



**Figure 2:** Many leishmania amastigotes, which resemble a swarm of bees, have been observed in the Tzanck smear. These parasites are found both inside of the histiocytes and extracellularly.



## Unusual location of scrofuloderma revealing sternocostal tuberculosis

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## Introduction & Objectives:

Cutaneous tuberculosis is a rare form, accounting for just 2.1% of extra-pulmonary tuberculosis cases. However, with the increasing use of immunosuppressive drugs and biotherapies, tuberculosis infection is re-emerging, particularly in extra-pulmonary forms. We present a case of an unusual location of scrofuloderma revealing underlying sternocostal involvement.

## **Results:**

A 50-year-old female patient with a history of type 2 diabetes had been presenting with a painless nodule on the thorax for several months, which was gradually increasing in size despite antibiotic treatment. Examination revealed an erythematous, firm, subcutaneous nodule with irregular purplish margins located in the inter-mammary fold. The nodule was centred by a pus-producing orifice. The rest of the clinical examination was unremarkable, apart from marked asthenia and recent weight loss. Histopathological examination of a skin biopsy showed epithelioid granulomas surrounded by lymphocytes associated with caseous necrosis in the dermis. Bacteriological examination of the pus did not reveal any germs on direct examination, and the culture was negative. The diagnosis of scrofuloderma was suspected and then confirmed by a positive polymerase chain reaction (PCR) for Mycobacterium tuberculosis on skin biopsy. A chest CT scan revealed multifocal osteoarthritis, bony lesions over the sternum and chondro-costal joints invading the surrounding soft tissue, and the formation of an anterior thoracic fluid collection fistulating to the skin. The patient was started on quadruple therapy (HRZE) comprising isoniazid, rifampicin, ethambutol and pyrazinamide. After six weeks, the patient's general condition had improved considerably and the skin lesion had begun to regress.

#### **Conclusion:**

Scrofuloderma is one of the most common forms of cutaneous tuberculosis in endemic countries. Scrofuloderma results from the spread of Mycobacterium tuberculosis infection by contiguity to the overlying skin from adjacent structures such as lymph nodes, joints, bones or the epididymis. The most

frequently affected sites are therefore the neck, armpits and inguinal fold.

The sternum, because of its resistance to infection, is rarely the site of osteomyelitis, which explains the rarity of thoracic scrofuloderma secondary to sternal osteomyelitis. Diagnosis is difficult. It is guided, as in our patient, by a strong clinical suspicion. CT is sensitive in detecting bone destruction and soft tissue abnormalities. However, the diagnosis is confirmed by culture (which was negative in our patient) or molecular techniques (PCR), which allow rapid identification of mycobacteria. Prolonged anti-tuberculosis treatment (6 to 9 months) with or without surgical debridement is necessary.

This case highlights the importance of evoking the diagnosis of scrofuloderma in the presence of a fistulised nodular lesion associated with general symptoms, particularly in a country endemic for tuberculosis. This is crucial to ensure early diagnosis and appropriate management.





## A Case Study of Malignant Staphylococcal Facial Disease in 23 Patients

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#### Introduction & Objectives:

Malignant staphylococcal disease of the face (MSDF) represents a severe and potentially life-threatening infection, which is a rare complication typically resulting from manipulation of a facial furuncle. It constitutes a diagnostic and therapeutic emergency. This study aimed to investigate the epidemiological, clinical, and evolutionary aspects of facial staphylococcal disease.

## Materials & Methods:

This is a retrospective descriptive study including patients admitted to the dermatology department of the Rabta Hospital in Tunis for treatment of MSDF during the period from 1998 to 2021.

#### **Results:**

We identified 23 cases of MSDF, with an average age of 41 years, comprising 14 men and 9 women. Among them, a history of diabetes was found in 5 cases, hypertension and heart disease (2 cases each) and COPD (one case). The average time from symptom onset to hospital admission was 24 hours. All patients presented with an erythematous, infiltrated inflammatory patch on the face without peripheral swelling, along with homolateral eyelid edema. Fever was observed in 16 cases, satellite adenopathy in 4 cases, and extension to the contralateral side was reported in 3 cases. The majority of patients (18 cases) were in good overall health. Two cases reported intense headaches, cerebral angioscan examinations ruled out cavernous sinus thrombosis in both instances. The origin of the infection remained unidentified in only two cases. Manipulation of a furuncle was the most common cause, accounting for 11 cases, followed by manipulated and infected epidermal or sebaceous cysts in 6 cases. Other causes included herpes labialis, eczema of the ear lobules, chickenpox, and skin wound, each observed in one case. The average hospital stay was 7 days (ranging from 3 to 17 days), during which all patients received intravenous antibiotic therapy, with a combination of two antibiotics in 16 cases. Complications such as comorbidity decompensation were observed in 4 cases, yet no instances of ophthalmic complications, septic shock, or death were reported. A return to normal body temperature, accompanied by regression of the inflammatory patch, was noted in all cases after an average of 3 days of antibiotic therapy.

#### **Conclusion:**

Our study revealed that MSDF affects both young individuals with no prior history of the disease and older, frail patients. There was no specific predisposing background for the occurrence of MSDF. While a furuncle serves as the typical entry site in more than half of the cases, any manipulated facial lesion can be the culprit. The sudden onset of symptoms, accompanied by fever and eyelid edema, likely explains the relatively prompt medical attention sought by patients. The diagnosis of MSDF is primarily clinical and typically does not necessitate further investigation. Although the initial overall health status was preserved in most of our patients, hospital management was rapid, involving appropriate intravenous antibiotic therapy and rigorous neurological monitoring. This approach effectively prevented serious MSDF complications, such as cavernous sinus thrombosis, meningeal damage, and blindness. Remarkably, all patients experienced positive outcomes, including those with decompensated conditions.

Staphylococcal infections of the face continue to be a common occurrence, necessitating prompt and suitable treatment to mitigate complications and prevent the development of the potentially life-threatening malignant form.



## Localized flat warts within tattoo pigment - an uncommon tattoo-related complication

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Localized flat warts within tattoo pigment - an uncommon tattoo-related complication

## Introduction & Objectives:

Tattooing involves the permanent implantation of pigment granules and additives into the dermal layer of the skin, serving diverse purposes such as decoration, medical identification, or accidental markings.

Throughout tattooing history, a diverse array of methods and techniques has been developed to attain lasting body modifications. These approaches span from traditional, deeply ingrained methods to more modern and contemporary practices. In the present day, tattoo artists have a range of machines and needles at their disposal, with the use of the right products being a crucial aspect of the tattooing process. The quality of products used indeed makes a significant difference. A more expensive machine guarantees precise and uniform ink transfer into the customer's skin, in contrast to a machine that operates irregularly and may pose a risk of skin damage.

Despite its growing popularity and the typically sterile conditions in which modern professional tattoos are carried out, there is a range of adverse reactions associated with tattooing, including allergic reactions, autoimmune disorders triggered by the Koebner phenomenon, auto-inflammatory afflictions, superficial and deep cutaneous infections, and cutaneous tumors. These reactions can manifest at various times, from immediate symptoms after tattoo application to symptoms emerging several years later.

#### **Results:**

We present the clinical cases of three patients who exhibited multiple flat warts (verrucae planae) associated with human papillomavirus (HPV). These warts were localized within the black pigment of tattoos performed several years before the appearance of the warts.

Clinical examination revealed discrete, skin-colored, asymptomatic verrucous papules distributed exclusively within the lines of the black-colored tattoos. No similar lesions were found elsewhere on the bodies during a comprehensive skin examination. Dermoscopically, the papules exhibited a discretely papillomatous surface with sharp borders. All tattoos had been professionally done more than 10 years ago, and there was no history of previous cutaneous lesions within the tattoos. The patients reported no other medical conditions, were not taking any medications, and no history of warts or other HPV-related skin or mucosal membrane lesions could be established.

To further investigate, a biopsy of an individual papule was performed and sent for histopathological analysis. Following the diagnosis of viral warts, patients underwent electrosurgical therapy of the lesions. Notably, the procedure was performed with precision, resulting in the elimination of the lesions without leaving any noticeable scars.

# **Conclusion:**

The belief is that HPV may be introduced through various means during the tattooing process, such as contaminated ink, instruments, the artist's saliva, or even a pre-existing but unnoticed wart in the tattooed area. The latency period between the tattooing event and the manifestation of HPV infection varies, ranging from several months to years, suggesting that the immune system may initially control the infection, and the development of clinical disease may be influenced by some form of immune suppression over time. Both customers and tattoo artist should be aware of the possible side effects of tattooing as it is a matter of global health.



## Unveiling Unusual Faces of Scabies: a spotlight on Scabietic vasculitis

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#### Introduction & Objectives:

Scabies , a prevalent and contagious ectoparasitic infestation , is attributed to Sarcoptes scabiei var.hominis. The hallmark of scabies is a pruritic rash accompanied by burrows commonly appearing in areas like the interdigital spaces and wrists, although the occurrence of classic lesions has become less common . Herein , we report a case of atypical clinical presentation of scabies.

## Materials & Methods:

A 55-year-old woman presented with a three-week history of widespread , mildly pruritic and persistent urticarial rash . Previous medical history included type 2 diabetes managed with metformin , and no recent drug intake was reported . Clinical examination revealed numerous urticarial plaques with excoriations on arms , trunk , periareolar region , buttocks , genitalia and legs . Interdigital web burrows were identified . Biopsy unveiled leukocytoclastic vasculitis , and direct immunofluorescence test was negative. Negative results were obtained for routine tests , serological assessments ( HIV , hepatitis B and C , EBV , Parvovirus 19) , ANCA , antinuclear antibodies , serum protein electrophoresis , and complement fragment analysis. Screening for cryofibrinogen and cryoglobulin was negative. The patient's son had scabies , confirmed by the presence of specific lesions : burrows associated with scabietic nodules . Treatment consists of topical benzyl benzoate lotion , resulting in favorable outcomes with scabies resolution and urticarial lesions regression within days. A six-month follow-up showed no recurrence of scabies or vasculitis.

#### **Results:**

Urticarial vasculitis (UV) stands out as a distinctive anatomo-clinical entity, characterized by inflammatory involvement of dermal capillaries. This rare form of cutaneous vasculitis impacts small vessels, manifesting in recurrent episodes of wheal-like lesions that persist for more than 24 hours. The histopathological features of UV are consistent with leukocytoclastic vasculitis. The etiology of UV may be idiopathic, yet associations with various underlying conditions, such as infections, medications, and systemic diseases, are noted. In our patient, the investigation for primary causative factors yielded negative results. Though histological analysis didn't identify scabies mites, a plausible argument suggests UV is incited by scabies infection. This inference is supported by the manifestation of specific scabies signs in a family member and the immediate improvement of clinical symptoms in our patient following scabies treatment, without specific intervention for vasculitis. The correlation between scabies and vasculitis is uncommon but seems not to be coincidental, given the documentation of additional cases in the existing literature.

Despite ongoing research, the precise mechanisms underpinning scabietic vasculitis remain incompletely understood. Hypotheses revolve around the sustained presence of mites and their products, influenced by delayed diagnoses, potentially leading to humoral hypersensitivity and the formation of circulating antigen-antibody immune complexes.

# **Conclusion:**

This case serve as a reminder that the diagnosis of scabies must be considered when investigating the etiologies of urticarial vasculitis .





## Zosteriform leishmaniasis: a rare atypical presentation of cutaneous leishmaniasis

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## Introduction & Objectives:

Cutaneous leishmaniasis (CL) presents several atypical features that may delay correct diagnosis and appropriate treatment. Zosteriform leishmaniasis is an uncommon clinical variant of CL. This report presents a case of zosteriform CL in a young patient with no medical history.

The materials, methods and results are described below.

## Materials, Methods & Results:

A 27-year-old man with no medical history presented with a three-month history of multiple erythematous papules and nodules on the left side of his neck. The lesions appeared to have a dermatomal distribution, leading to a clinical impression of herpes zoster. The patient had traveled to an area endemic for cutaneous leishmaniasis (CL) a month before the lesions appeared. The physical examination revealed two erythematous nodules on the left forearm and an ulcerative crusted plaque on the right leg. The nodules had a central ulcer covered with yellow crusts and were associated with satellite papules. Dermoscopic examination showed an orange-red background, ulceration, hyperkeratosis, and hairpin vessels, which are consistent with CL. Leishmania amastigotes were detected by smear of the lesions. The patient received treatment with cryotherapy and intralesional infiltration of meglumine antimoniate.

## **Conclusion:**

Several unusual presentations of CL have been reported in the literature. The zosteriform variant has been described only anecdotally in the literature. Its clinical features include one or more plaques composed of papules and pseudovesicles, which conform to a linear pattern. Additionally, satellite lesions may affect one or more dermatomes without crossing the midline. The reason for the clinical pleomorphism of CL remains unclear. There is no established treatment guideline for atypical CL, which may be related to an altered host response or an atypical parasite strain. However, pentavalent antimonials are still the first-line treatment for all forms of CL. To accurately diagnose an unusual lesion, it is necessary to consider the patient's medical history and origin. In endemic areas, it is suggested to use dermoscopy to investigate all cases of zosteriform skin lesions to exclude CL.



## Echtyma Gangrenosum Secondary to Staphylococcus auréus in a Chid whith Transient Neutropenia

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#### Introduction & Objectives:

Perineal lesions in children encompass injuries to the perineum, anogenital region, and any localized skin damage occurring "under the diaper" in an infant. It is a common reason for consultation, dominated by commonplace and frequent situations such as diaper dermatitis, but also by rarer conditions that should be recognized.

## Materials & Methods:

We present the case of a 6-month-old female infant, with no medical history, who has been experiencing fever and skin lesions for the past 4 days, treated with macrolides. Due to clinical deterioration, persistent fever, hypotonia, and a C-reactive protein (CRP) level of 450, the patient was hospitalized for suspected meningitis. She was put on meningitis-dose antibiotic therapy with a normal lumbar puncture, and a dermatology consultation was requested. On examination, there are 2 necrotic ulcers located in the perineum and genital areas, with an erythematous border and a fibrinous base topped with a central crust, along with multiple erythematous maculopapular lesions on both lower limbs. Dermoscopy is nonspecific, showing an ulceration, central crust, whitish scales, and pinpoint vessels. We first considered perineal dermatitis at risk, including ecthyma gangrenosum and Crohn's disease, as well as other infectious and inflammatory etiologies (genital herpes, cutaneous tuberculosis, pyoderma gangrenosum, Langerhans cell histiocytosis...).

#### **Results:**

In the laboratory findings: normochromic normocytic anemia, neutropenia at 200/mm3, and a CRP of 450 mg/l were observed. Bacteriological pus culture and blood cultures were positive for methicillin-resistant Staphylococcus aureus. Cytomegalovirus (CMV) serology with polymerase chain reaction (PCR) was positive. Soft tissue ultrasound revealed infiltration without collection. Histologically: ortho- and parakeratotic hyperkeratosis, spongiosis and exocytosis with a polymorphic dermal, perivascular, and intralesional infiltrate were observed, with no signs favoring other diagnoses. We diagnosed ecthyma gangrenosum with methicillin-resistant Staphylococcus aureus in the context of transient neutropenia secondary to CMV infection.

#### **Conclusion:**

Ecthyma gangrenosum is a rare condition diagnosed clinically and bacteriologically. The majority of pediatric patients have either transient or persistent immunodeficiency that must be managed alongside appropriate antibiotic treatment. It is important to note that ecthyma gangrenosum with Staphylococcus aureus is a serious condition requiring immediate medical attention. Hence, the importance of broad-spectrum empirical antibiotic coverage and culturing microorganisms in any patient presenting with ecthyma gangrenosum.



## Tinea capitis: epidemiology, diagnosis and treatment

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## Introduction & Objectives:

Tinea capitis is a fungal infection caused by dermatophytes of the genus Microspurum and Trichophyton. It is common among school-age children and continue to be a public health problem in Morocco.

The objective of this study is to establish the epidemiological-clinical, mycological and therapeutic aspects of tinea capitis at Ibn Rochd University Hospital of Casablanca.

## Materials & Methods:

This is a retrospective descriptive study of pediatric patients treated for tinea capitis in the dermatology department of the Casablanca University Hospital over a period of 4 years from January 2019 to September 2023.

#### **Results:**

- 267 patients with tinea capitis were included in this study.

- The average age was 7.24 years with age limits between 1 to 14 years old.

- Both sexes were affected with a male predominance in 69.6% of cases and a M/F sex ratio of 2.29.
- Similar cases in the entourage were reported in 17.9% and contact with animals in 33.7% of cases.
- The animals concerned were cats in 51.3%, dogs in 28.8%, birds in 17.7% and rabbits in 2.2% of cases.

- Clinical presentations were: black dot pattern in 45.5%, seborrheic-like scale in 43.8% of cases, while the inflammatory form : kerion celsi." was found in 14.6 % of cases. No cases of favus have been reported.

- 16.01% of cases had clinical manifestations of extensive tinea corporis .

- The mycological examination found: Microsporum. canis in 56.5%, Trichophyton. violaceum in 18.3%, Trichophyton. mentogrophyte in 7.86% and Trichophyton. rubrum in 0.22% of cases.

- For the inflammatory form, Microsporum. canis was identify in 48.1% of cases, Trichophyton. mentogrophyte in 23%, Trichophyton. violaceum and Trichophyton. rubrum in 7.6% each.

- Treatment was local antifungal combined with an oral antifungal agents: griseofulvin 20 to 25 mg/kg/day was initiated in 98.1% cases while terbinafine 5 mg/kg/day was prescribed in 1.87% cases.

- The treatment was well tolerated in all our patients except one patient who presented an acute generalized exanthematous pustulosis, following griseofulvin and requiring treatment discontinuation and substitution with terbinafine with good outcome.

- The clinical evolution was good in 92.5% of cases, with persistence of partial alopecia in 6.7% and scarring alopecia in only 2 patients.

#### **Discussion:**

Tinea capitis is a common infection in Morocco which can be contagious and cause localized epidemics.

Although there is wide variation in the epidemiology of tinea capitis, Trichophyton. tonsurans is the most prevalent pathogen worldwide followed by Microsporum. canis.

While in many countries of the Mediterranean basin including Morocco, Microsporum.canis remains the predominant causal organism as shown in our series.

This is explained by the increase in the number of stray cats and dogs, as well as the adoption of domestic animals by Moroccans who can be asymptomatic carriers of Microsporum. canis or other zoophilic dermatophytes.

Treatment is with systemic antifungals coupled with topical antifungals.

As griseofulvin remains the antifungal of choice in the treatment of tinea capitis, terbinafine may be a well-tolerated therapeutic alternative treatement with few side effects.

It would be interesting to see more about the efficacy and tolerance of terbinafine in the treatment of Tinea capitis in the pediatric population.



## Facial orf lesion: an uncommon localization

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## Introduction & Objectives:

Orf disease is a zoonotic infection caused by a parapoxvirus. Humans that are infected typically develop ulcerative lesions or nodules on their hands. Facial localization of Orf nodule is rare and can easily be misdiagnosed. Herein, we report a case.

## Materials & Methods:

An 8-year-old boy with no previous medical history presented with a frontal nodule that had appeared two weeks ago. The lesion was progressively increasing in size with no improvement under antibiotics.

The nodule measures 3.5 cm and was covered by yellow crusts. It was bleeding on contact. Dermoscopy showed hemorrhagic suffusions without specific structures.

The father presented 10 days ago, with two crusty nodules on the fingers that improved spontaneously.

Further anamnesis revealed a recent direct contact of both of the father and his son with a sheep having oral and perioral ulcerations. Therefore, the diagnosis of Orf disease was made. The spontaneous evolution of the frontal lesion was marked by a complete involution within 2 weeks.

#### **Results:**

Orf infection is caused by a parapoxvirus that affects particularly sheeps and goats. It can be transmitted to Human by direct contact of an injured skin with contagious animal lesions. It usually presents as erythematous nodules frequently located on fingers, but atypical localizations had been reported in the literature.

Orf nodules progress through six clinical stages during 4 to 6 weeks : maculopapular stage, targetoid stage, acute stage (weeping nodule), regenerative dry stage with black dots (the case of our patient), papillomatous stage, and regression stage with a dry crust.

The diagnosis usually relies on clinical history and evolutionary progress of the disease. Histopathological and microbiological examinations can be performed in case of doubt. The main differential diagnosis is pyogenic granuloma.

The orf lesion usually recovers spontaneously without any specific treatment. Unnecessary procedures such as laser or surgical removal can exacerbate the disease.

# **Conclusion:**

The facial localization of Orf disease is unusual. The anamnesis and the typical evolution allow to recognize the diagnosis and avoid unnecessary interventions.