The Long-Term Evolution of Melanocytic Nevi Among High-Risk Adults

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Introduction & Objectives:

There is little understanding regarding the long-term natural history of melanocytic nevi among adults.

Our objective was to describe the long-term natural history of individual nevi located on the torso of high-risk patients.

Materials & Methods:

All patients attending Memorial Sloan Kettering Cancer Center (MSKCC) who underwent two total body photography (TBP) sessions 15+ years apart were included (“retrospective” group). To account for a potential selection bias, we also included consecutive patients who had TBP 15+ years ago and consented to undergo follow-up TBP (“prospective” group). We compared baseline and follow-up torso images on the TBPs and evaluated the number of total, new, and disappearing nevi; number of seborrheic keratoses and actinic keratoses; each nevus’ diameter at both time points; each nevus’ color change; the presence of clinical atypia; and when dermoscopy was available, the dermoscopic features at each time point.

Results:

106 patients were included in the study. Although the average age of the patients was 40 at baseline TBP, most patients developed new nevi between imaging sessions (median 16.4 years) with an average of 2.6 (SD=4.8) nevi per participant. The average number of disappearing nevi was 0.3 (SD=0.6). In addition, 62/106 (58%) patients had an absolute increase, and 9/106 (8%) patients had an absolute decrease in their total nevus count. Roughly half (49%:1,416/2,890) of the nevi that could be evaluated at both time points increased in diameter by at least 25%. Only 6% (159/2,890) of nevi shrunk in diameter by at least 25%. Patients with a history of melanoma had a higher rate of disappearing nevi, and their nevi were more likely to grow. Most nevi demonstrated no significant dermoscopic changes.

Conclusion:

High-risk patients acquire new nevi throughout life with very few nevi disappearing over time. Contrary to prior reports, most nevi in adults increase in diameter, while few nevi shrink.
Abstract N°: 106

Association between the dermoscopic morphology of peripheral globules and melanocytic lesion diagnosis

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Introduction & Objectives:

The presence of peripheral globules is associated with enlarging melanocytic lesions; however, there are numerous patterns of peripheral globules distribution and it remains unknown whether specific patterns can help differentiate enlarging naevi from melanoma.

Our objective was to investigate whether morphological differences exist between the peripheral globules seen in different subsets of naevi and in melanoma.

Materials & Methods:

A cross-sectional study of clinical notes that mentioned peripheral globules, in addition to all melanoma images with peripheral globules on the International Skin Imaging Collaboration archive. Dermoscopic images were reviewed and annotated. Associations between diagnosis and categorical features were measured with odds ratios. Non-parametric tests were used for continuous factors.

Results:

184 lesions with peripheral globules from our clinic were included in the analysis; only 6 of these proved to be melanoma. 109 melanomas with peripheral globules from the International Skin Imaging Collaboration archive were added to the analysis. Melanomas were more common on the extremities and among older individuals. Melanomas were more likely to display atypical, tiered and/or focal peripheral globules. Only 5% of melanomas lacked dermoscopic melanoma-specific structures compared to 48% of naevi.

Conclusion:

Melanocytic lesions with atypical or asymmetrically distributed peripheral globules, especially when located on the extremities, should raise suspicion for malignancy. Melanocytic lesions with typical and symmetrically distributed peripheral globules, and with no other concerning dermoscopic features, are unlikely to be malignant.
A CASE OF KERATOSIS LICHENOIDES CHRONICA (NEKAM’S DISEASE): Dermoscopic and in vivo reflectance confocal microscopy findings

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Introduction & Objectives:
Keratosis lichenoides chronica (KLC) is a rare chronic inflammatory disorder of keratinization, also known as Nekam’s disease, characterized by asymptomatic hyperkeratotic papules in a linear or reticular pattern on the trunk and the extremities symmetrically. Histopathology shows features of lichenoid dermatitis. The course of the disease is chronic, progressive, and the treatment is challenging. Herein, we report a case of KLC with dermoscopy and reflectance confocal microscopy (RCM) findings.

Materials & Methods:
A 39-year-old man presented with 3 years of reticular lichenoid lesions on the trunk and extremities, along with erythroderma. He was taking 100 milligrams (mg) of azathioprine and 4 mg of prednisolone for idiopathic pulmonary fibrosis. There was no family history of similar eruption, nor any skin disorders diagnosed.

Results:
A physical examination revealed erythroderma and generalized pink-brown hyperkeratotic and infiltrated papules with reticular coalescence on the face, trunk, and extremities. Oral mucosa and nails were unaffected. In dermoscopy, globular Wickham Stria with dotted and linear vessels, diffuse brown-gray granules, and perifollicular granules and dots were seen.

RCM demonstrated a regular honeycomb pattern on the epidermal level, dense inflammatory infiltration with dendritic cells, and single-cell necrosis on basal layers. Dermo-epidermal junction (DEJ) was irregular with dense melanophage infiltration. Bright stellate spots in the superficial dermis, consisting of inflammatory cells and plump-bright cells including melanophages were present (Figure 1).

Histopathology revealed hypergranulosis, epidermal basal necrotic keratinocytes, and basal lymphoid infiltration. A dense band of mononuclear cell infiltration with some melanophages and dilated vessels on the superficial dermis was present (Figure 1).

The patient was diagnosed with Nekam’s disease with clinicopathologic correlation. Systemic prednisolone at a dose of 0.5 mg/kg was combined with 10 mg acitretin. The prednisolone dose was gradually reduced, while acitretin therapy was increased to 35 mg daily. The patient had a dramatic response to acitretin therapy with no recurrence in two years.
Figure 1 (A,B) A lichenoid infiltration with parakeratosis, basal vacuolar degeneration, lymphoid exocytosis, and dermal inflammatory cell infiltration with melanophages (H&E x100, x200). (C,D) Dense inflammatory infiltration with dendritic cells, and irregular DEJ with plump-bright inflammatory cells.

Conclusion:

Dermoscopy and RCM are well-known in vivo techniques significant in the diagnosis of lesions without a histopathologic examination. Epidermis, DEJ, and upper dermal morphological features can be analyzed using RCM. RCM findings of KLC have not been described in the literature.*

RCM findings of the patient were in correlation with histopathologic examination. Bright stellate spots in DEJ are correlated with dense inflammatory infiltration with dendritic cells. In some areas, single-cell necrosis was visible, which is typical of Civatte bodies in lichen. Irregular DEJ is correlated with interface dermatitis. The plump-bright cells on DEJ and superficial dermis are correlated with melanophages.

This case report illustrates the dermoscopy and RCM features of KLC with histopathological correlation. RCM and dermoscopy features, combined with the clinical findings, may be helpful to the diagnosis of KLC.
Clinical and Dermoscopic Changes In A Case of Posttraumatic Acute Onset Proliferated Pilomatricoma

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Introduction & Objectives:

Pilomatricoma (PM) is a benign adnexal hair follicle tumor defined as a well-circumscribed bluish-red, hard, solitary nodule, usually located on the scalp, and upper extremities. Proliferating pilomatricoma (PPM) is a type of PM composed of a large lobular proliferation of basaloid cells and focal shadow cells, which has been scarcely reported. Herein, we present clinical and dermoscopic changes in a case of posttraumatic acute onset PPM.

Materials & Methods:

A 70-year-old male patient was admitted with a rapidly growing pink-red hemorrhagic nodule appeared 15 days after trauma in the left frontal area. An exophytic, 8x7 millimeters, red, bleeding, fluctuating nodule in the left frontal region was seen.

Results:

A chaotic appearance with ulceration on a pink background was observed in the dermoscopic examination, as well as polymorphic vessels on the surface consisting of finely calibrated branching, linear irregular and dotted vessels, blue-gray structureless areas, irregular yellow-white structureless areas, and gray-white streaks. Dermoscopy revealed an increase in ulceration, blue-gray structureless areas on the ground, and irregular yellow-white structureless areas, streaks, and polymorphic vessels. Histopathology was consistent with PPM.

Figure 1. (A) Basaloid cells with mitotic figures (x40, H&E) (B, C) Peripheral basaloid cells, central ghost cells containing masses of eosinophilic cornified material (B: x100, C: x200, H&E)

Conclusion:

Histopathology of PM shows a well-circumscribed multilobular tumor in the deep dermis or subcutaneous, surrounded by stroma. Tumor lobules consist of basaloid cell clusters with mitotic figures in the periphery. Ghost cells, also called shadow cells, are anucleated dead cells that retain their cellular shape and contain large masses of eosinophilic cornified material in the center.

Irregular yellow-whitish structures and streaks correspond to calcification and large quantities of eosinophilic cornified material located in the center of well-developed PM lobules. The presence of proliferating vessels in the papillary dermis and bleeding can explain the reddish homogeneous area. Structureless gray-blue areas correspond to melanin pigment within basaloid cell clusters or the presence of melanophages or siderophages in
the inflammatory infiltrate.

Dermoscopic findings of PM include irregularly shaped reddish and yellow-white homogeneous areas, hairpin and linear irregular vessels, and white streaks. Dotted vessels, ulceration, and structureless blue-gray areas are also often accompanied. No specific dermoscopic signs of melanocytic or non-melanocytic lesions are observed.

PM is characterized mainly by the high proliferative activity of matrix cells in its early phase, while typical ghost cells and eosinophilic keratinization develop later. During the early stage or rapidly developing PPM, structureless blue-gray areas due to basaloid cell clusters are more common, while yellowish-whitish structures and streaks expressing the eosinophilic cornified material of ghost cells may develop in the later period. Our case report supports this idea, as we observed a predominance of structureless blue-gray areas in the lesion on the 15th day and a predominance of yellowish-white areas in the 3rd week. To our knowledge, this is the first case demonstrating dermoscopic findings in early and established PPM lesions, as well as dermoscopic changes in follow-up.
Abstract N°: 174

Dermoscopic approach for differential diagnosing of autoimmune bullous disease: pemphigus vulgaris, pemphigus foliaceus, and IgA pemphigus

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Dermoscopic approach for differential diagnosing of autoimmune bullous disease: pemphigus vulgaris, pemphigus foliaceus, and IgA pemphigus

Introduction & Objectives: Dermoscopy is a noninvasive technique for the evaluation of different pigments and microstructures of the epidermis, dermoepidermal junction, and papillary dermis that are not apparent to the naked eye, which therefore improves diagnostic accuracy. This study aims to describe the characteristic dermoscopic features of bullous diseases and analyze the characteristic dermoscopic features of bullous diseases of the skin and hair.

Materials & Methods: A descriptive study was conducted to describe and analyze the characteristic dermoscopic features of bullous diseases in the Zagazig University Hospitals.

Results: This study enrolled 22 patients. Dermoscopy revealed yellow hemorrhagic crusts in all patients and white yellow structure with red halo in 90.9% of patients. Pemphigus vulgaris patients were identified by the presence of dermoscopic clues such as bluish deep discoloration, tubular scaling, black dots, hair casts, hair tufts, yellow dots with whitish halos (fried egg sign) and yellow follicular pustules that are not seen in pemphigus foliaceus and IgA pemphigus.

Conclusion: Dermoscopy is an important tool that serves as a link between clinical and histopathological diagnoses, and it can easily be used in daily practice. Several suggestive dermoscopic features can help in the differential diagnosis of autoimmune bullous disease but only after making a provisional clinical diagnosis. Dermoscopy is a very useful tool in the differentiation of pemphigus subtypes.
“Dermoscopy of Mudi-Chood Disease - Cut Kiwi Fruit and Black Crust Fungus Appearance”

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Introduction & Objectives:

Introduction: Mudi-chood disease was described in 1972 by Sugathan and Nair among females from Kerala, India as a papulosquamous disorder, presenting as well defined, flat topped, mildly pruritic, follicular, coin-shaped hyperpigmented papules and plaques over the nape, upper back, ear pinna and forearm.¹,²-⁴ Previously, its dermoscopy has been described in a single case report as ‘cut kiwi fruit’ appearance.⁵ Here, we are describing newer dermoscopic findings as per evolution of lesions in two cases of Mudi-chood disease.

Objectives: To sensitize the dermatologist across the world on this unique dermatoses seen in south Asian countries as a part of indigenous cultural practices & to explain the specific dermoscopic features which has been observed in this condition

Case description:

Two females aged 17 and 35-year-old, natives of Kerala, India, presented with dark raised lesions over nape and upper back for six and nine months respectively. They gave history of daily application of warm coconut oil over hairs and making a single braid till upper back throughout the day followed by daily wash at night. Both denied any history of use of hair dye, medications, or any photo-aggravation of symptoms. Dermatological examination showed multiple, discrete to confluent, hyperpigmented flat-topped follicular papules with adherent scales with koebnerization over nape in case 1 and additionally over upper back in case 2. Based on history & cultural practices of the patients, diagnosis of Mudi-chood was considered. Non-polarised dermoscopy gives a perifollicular ‘stuck on’ appearance of brown-black crust. Polarised dermoscopy of an evolving papule revealed three distinct zones visualized around the hair follicles with innermost zone of hypopigmentation, middle zone of alternating light and dark brown hyperpigmentation and an outer zone of either erythema or a rim of hypopigmentation. Overall appearance of the lesion resembles ‘cut section of a Kiwi fruit’. Peripheral white scaling & multiple red dots were seen surrounding the outermost zone. Evolved papules in case 1 showed a central perifollicular ‘brown structureless areas’ with a cerebriform pattern at the periphery and greyish white scale over the lesion resembling ‘black crust fungus’. This finding seems to be novel and has not been described in literature. Patients did not consent to a skin biopsy as the lesions were on exposed body parts. They were managed with topical 0.05% tretinoin cream at night and a change in the oiling practice that resulted in complete resolution in six weeks.

Conclusion: Mudi-chood has been attributed to cultural practices in females of southern part of India where a combination of prolonged and repeated oily wet hair, friction by knotted hairs, high temperature and humidity induced sweating, results in a non-specific follicular reaction of pilosebaceous units with vesico-pustule formation. Diagnosis is usually clinical and can be confirmed with dermoscopy & histopathological examination. Though the dermoscopy resembling ‘cut surface of Kiwi fruit’ has been described previously in a case report, we describe the mudi-chood dermoscopy as per the evolution of lesions with additional pattern resembling ‘black crust fungus’ in a mature lesion. However, these distinctive patterns may need further evaluation with more studies so that dermoscopy can be used as an easy & non invasive technique in the clinics for the diagnosis of this entity.
Abstract N°: 193

Dermoscopic Evaluation of Longitudinal Melanonychia in Children: A Prospective Study

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Introduction & Objectives: Longitudinal melanonychia (LM) is a worrisome sign in both children and adults. Nail apparatus melanoma can be related to LM, but it is very rare in children. Dermoscopic signs of benign lesions in children can be similar to melanoma; therefore, it is important to review dermoscopy of LM in children to make the best decision in performing biopsy. Biopsy taking is very challenging in LM of children. Most lesions are benign in children. The aim of this study was to review dermoscopic signs of LM in children and compare them with adults.

Materials & Methods: In this prospective study a total of 108 LM (35 children and 73 adults) were undergone dermoscopy. Dermoscopic features were compared in children and adults; both for benign lesions proven by biopsy or follow up and melanomas diagnosed histopathologically.

Results: Black background, black band color, band color diversity and pseudo-Hutchinson’s sign were more frequent in children in comparison with benign adult melanonychia. Some children’s dermoscopic features of LM such as broad band width, Band color diversity, Hutchinson’s sign, gray band color, asymmetry of pattern, and regression were similar to melanoma, but we did not find any melanoma by biopsy and/or follow up among children. We also detected the newly described “zigzag” pattern in four children.

Conclusion: Dermatologists should consider all dermoscopic features of a lesion, dermoscopic sign changes in follow-up, medical, and familial history of the patient in deciding to perform biopsy of LM in children.
Analysis of teledermoscopy and face-to-face examination of atypical pigmented lesions - a cross-sectional retrospective study

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Introduction & Objectives: Malignant melanoma (MM) is one of the most fatal skin cancers. Early detection and treatment are crucial to prevent metastases. The growing number of MM leads to an increased need of skin examination which rises healthcare demand on dermatology departments. Teledermoscopy (TD) evaluation implies that a general practitioner takes photographs of a suspected skin lesion (clinical & dermoscopic image) and sends them with the referral to dermatologist for digital assessment. The purpose of this cross-sectional retrospective journal study was to analyze the accuracy and reliability of two different methods - TD and face-to-face examination (FTF) in detection of MM in the Jonkoping County.

Materials & Methods: The present study was designed as a cross-sectional retrospective study. The study was performed between January 1st and June 30th, 2020, at the Department of Dermatology, Ryhov County Hospital in Jonkoping, Sweden. The clinical data, histopathological results, age, gender, heredity, and previous history of skin cancer were obtained using the electronic patient journal system.

The study population is divided into two groups: TD and FTF. The AML diagnosis was made by one dermatologist each time of totally 13 dermatologists, according to the clinical routines, after an FTF or TD evaluation.

Results: Group TD was comprised of 55 women and 57 men and group FTF comprised of 72 women and 66 men. The number of patients and gender distribution in both groups are nearly similar. The median age of patients at the time of diagnosis in TD was 55 (ranging from 18 to 91 years) and in FTF was 68 (43 to 92). In FTF the median age of patients at the time of diagnosis was higher compared to TD. Even the rate of family history of skin cancer distinguished in both groups. The rate of family history of NMSC is higher in FTF group compared to TD group and the family history of MM is approximately 5 times higher compared to TD group. Even the rate of personal history of skin cancer including NMSC and MM is higher in the FTF group in comparison.

In group TD, 75% of lesions suspected as MM were classified accurately as MM according to the histopathology report compared to group FTF where 57% of suspected MM were correctly diagnosed. The diagnostic accuracy between TD and histopathologic diagnosis was 80% and between FTF and histopathologic diagnosis 69%.

Conclusion: We believe that the high diagnostic accuracy of TD in our study compared to FTF is due to result of several different factors. To evaluate clinical and dermoscopic images through TD in a calm environment and with a wide screen resolution that gives more focus on a specific lesion can improve the diagnosis for benign and malignant skin tumours. The patients included in FTF had a higher median age, more family history of skin cancer and personal history for skin cancer (MM & NMSC) compared to patients included in TD, thereby making the diagnosis of patients in FTF more complicated with several risk factors.

We suggest that TD is suitable and non-inferior to FTF in detecting MM. TD reduces health care costs and is a useful alternative to FTF. TD shows high specificity and sensitivity and reduces both the number of unnecessary referrals and waiting time especially for patients in remote rural areas. Education in the field of dermoscopy and
implementation of TD in everyday life of dermatologists may improve fast and accurate melanoma diagnosis in a larger number of patients which may lead to earlier diagnosis of melanoma, reduced morbidity, and treatment costs.
Introduction & Objectives:

Cutaneous metastases occur when malignant cells from distant tumors infiltrate and proliferate in the skin. The incidence of cutaneous metastasis varies from 0.6% to 10.4% depending on the type of cancer. While cutaneous metastases can be an indicator of cancer progression, they can also occasionally be the primary manifestation of undiagnosed cancer. Despite the high incidence, only limited literature has been published on the clinical and dermoscopic features of metastatic nodules from solid tumors. This is due to the wide variation in clinical findings, leading to diagnostic errors.

The objective of this study: identify the clinical and dermoscopic features of cutaneous metastases of breast cancer by conducting a literature review and analyzing our clinical case.

Materials & Methods:

In January 2022, a patient presented with complaints of growths on her scalp, accompanied by slight pain and itch in the area. According to the patient’s medical history, she underwent a mastectomy on the right side in 2012 for the treatment of breast cancer. Following the mastectomy, the patient received hormone replacement therapy but chose to discontinue it prematurely on her own.

A differential diagnosis was conducted, taking into account the atypical location of the growths that were limited to the scalp. The differential diagnosis included cylindromas, multiple basal cell carcinomas, and metastatic carcinoma. The patient was referred to an oncologist for a diagnostic biopsy.

Results:

Lesions manifested as multiple firm pink nodules measuring 0.3-1 cm in diameter, non-tender, with undefined borders. Dermoscopy revealed polymorphous vessels on an erythematous background, structures resembling chrysalis.

Based on histology and immunohistochemistry studies, the diagnosis of cutaneous metastases of breast cancer was confirmed.

Conclusion:

Cutaneous metastases can be the first sign of a relapsing malignant tumor. Dermoscopy can aid in differentiating these lesions from other skin diseases. The thickness and diameter of the atypical vessels serve as prognostic factors. In cases where lesions do not fit the standard clinical picture of benign cutaneous lesions, histological verification is recommended for accurate diagnosis.
Abstract N°: 816

A rare case of segmental guttate morphea with special reference to dermoscopic findings

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Introduction & Objectives:

Morphea is commonest form of scleroderma, with limited involvement of the skin with onset before 10 years in 15% cases. Guttate morphea defined as small (<10 mm), pale, minimally indurated, coin-shaped plaque with lilac ring. Clinically it appears similar to extragenital lichen sclerosus, but true guttate morphea lacks epidermal atrophy and follicular plugging. Salmon et al, 1st describe guttate morphea in a lady from France in 1998. Subsequently, Blaya et al reported similar droplet morphea lesions on the forearm and inner aspect of the right arm with pre-existing plaque morphea on soles, and Oiso et al described 62-year-old Japanese man infected with HTLV-1 virus, presented with pityriasis Rosacea like distribution of Guttate morphea but dermoscopy was not done.

Materials & Methods:

Twenty-year female presented with unilateral, multiple, dull white, coin shaped, slightly indurated plaques, discrete as well as coalescing at few places present on extensor aspect of right forearm from 1 year of age.

It starts with single depigmented papule on right forearm, which gradually increase in size, number and few of them coalesces to form indurated plaque, size varies from (0.5x0.5) mm to (0.5x0.9) mm, without lilac ring. These lesions extend proximally to involve elbow and distally to reach wrist. Kobenerization present, with few lesions shows keratotic plug. Asymptomatic lesions but still progressive till now. She has not developed dysphagia, arthralgia, or Raynaud’s phenomenon since the onset of the skin condition. Segmental guttate morphea, Extragenital Lichen sclerosis et atrophicans and hypopigmented keratosis were kept as differential diagnosis

Results:

Dermoscopy revealed leaf like appearance (akin to nebuloid pattern of Idiopathic Guttate Hypomelanosis) along with fibrotic beam, yellowish white patches, reticulate brown area, yellowish clod, without telangiectasia. Skin biopsy shows sparse superficial and deep perivascular lymphocytic infiltrate with flattening of epidermal rete ridges. Reticular dermal collagen is thinned at places and arranged parallel to the surface epidermis. The sweat units are present in mid reticular dermis. Based on the above findings, diagnosis of segmental guttate morphea was made and patient was prescribed topical tacrolimus and oral methotrexate but patient didn’t come for follow-up.

Conclusion:

Generalized guttate morphea is very rare clinical entity with few references in literature but segmental guttate morphea had not been reported, after extensive search. Dermoscopy shows mixed features of guttate morphea and Idiopathic Guttate Hypomelanosis. The most noteworthy aspect of our case is the type of morphea and its dermoscopy, as we were unable to find equivalent examples in the literature.

Conflict of Interest: None
Abstract N°: 860

Dermoscopic and systemic findings in two cases of a very rare entity: Lipoid proteinosis and Review of literature

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Introduction & Objectives: Lipoid proteinosis (LP) is a rare autosomal recessive genodermatosis, with only 400 cases reported worldwide, characterized by infiltration of PAS+ hyaline material in the skin, upper aerodigestive tract, eyelids, and internal organs. We aimed to analyzed large number of cases, and compare various features (including dermoscopy) of LP in Indian and non-Indian cases.

Materials & Methods:

Data of LP cases were gathered with the help of Medline’s PubMed and Google Scholar search (1929-2023). We added two new cases. We compare demographic data, consanguineous marriage status, oral, extraoral manifestation and dermoscopic features of Indian and non-Indian LP cases and look for potential associations.

Results:

Among 267 analyzed cases, most prevalence of LP shown in India. Family history and systemic manifestation (p<0.05) are significantly less relevant while oral manifestation (p=0.001) is predominating features in Indian patients. All Indian cases shows dermatological manifestation (100%) in the form beaded eyelid margin and rest cases shows alopecia, yellow and waxy skin and acneiform skin scarring in variable proportion. Consanguineous Marriage, laryngeal involvement (voice changes in infancy), radiological features, histological features are comparable in both groups. Our cases were two unrelated male child (10-years, 4-years old), born out of non-consanguineous marriage, live in same locality, developed multiple blisters, hemorrhagic crust healed with scarring alopecia, pock like scar in trunk, hypertrophic scar in elbows, after 9 months and 1 years of age respectively, along with multiple pearly papules in eyelid margin and hoarseness of voice. Ten-years boy shows temporal lobe calcification (CT Brain) and polypoidal changes on direct laryngoscopy. Skin biopsy shows PAS+ hyaline material in papillary dermis, around capillaries and sweat glands and sparse perivascular mixed infiltrate. On dermoscopy, younger-boy: Scalp and nape of neck: pinkish-white structureless area with telangiectasia and older-boy: whitish structureless area and reticulate brown network in cicatricial alopecia, while multiple brown clod (bulge: non-polarized) and yellowish-white clods (bulge: polarized) surrounded by brown reticulate network (nape of neck). Sulci-gyri with pale white structureless area on elbow and white clod (discrete-younger child, continuous-older child) with distichiasis on eyelid margin in both children.

Our dermoscopic findings are in full agreement with Tabassum et al and Ray et al, partial agreement with Maralit et al (older-boy) and Shivkumar et al and mixed findings observed in Özkoca et al while non-agreement with Lohia et al findings.

Conclusion:

Younger and older boy had predominately inflammatory active and infiltrated lesion respectively. As age of LP patient increased, inflammatory changes are replaced by more infiltrative changes as evident in histopathology and dermoscopy. Indian patients had predominant oral and cutaneous features while systemic manifestation and family relative are less relevant. Lipoid proteinosis is rare genodermatosis, although its dermoscopy had been reported in very few literatures which need to validate in future studies with case series. It aids in diagnostic
modality but gold standard method is histopathology examination.
Abstract N°: 1110

Comparison of Smartphone-Based Artificial Intelligence and Human Raters for the Classification of Skin Tumors

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Introduction & Objectives:

Our innovative artificial intelligence algorithm (DIVAT), based on a “You Only Look Once” (YOLO) neural network model, is intended to enhance the accuracy of store-and-forward teledermatology services. We present the effectiveness of DIVAT in the classification of melanoma, melanocytic nevi, and seborrheic keratoses, comparing the results with two dermoscopy experts and five beginners. The research is funded by the Research Council of Lithuania COVID-19 R&D Implementation scheme.

Materials & Methods:

To train the DIVAT algorithm, we utilized a robust dataset consisting of dermoscopic images from the International Skin Imaging Collaboration (ISIC) archive, which contained 58,457 images. This dataset was augmented with our department’s own dermoscopic images, which consisted of 633 images, 251 of which were histopathologically verified.

Following training, we integrated the DIVAT algorithm into a mobile application, which was used for subsequent assessment. The testing process involved analyzing 100 dermoscopic images of histologically confirmed melanomas (n=32), melanocytic nevi (n=35), and seborrheic keratoses (n=33). To benchmark the performance of DIVAT, we compared its results to the gold standard of histologically confirmed diagnosis, as well as evaluations by two skilled dermatologists with extensive experience in dermoscopy and five dermoscopy beginners.

Results:

DIVAT achieved the highest sensitivity when classifying melanoma, with a sensitivity of 0.88 (0.71 – 0.96) and a specificity of 0.87 (0.76 – 0.94). The algorithm also performed well in classifying melanocytic nevi, with a sensitivity of 0.77 (0.60 – 0.90) and a specificity of 0.91 (0.81-0.97). However, the NNM sensitivity for seborrheic keratoses was lower, at 0.52 (0.34 – 0.69), although it maintained a high specificity of 0.93 (0.83-0.98) (Table 1).

Table 1. The effectiveness of DIVAT in comparison with the classification performance of human raters.
<table>
<thead>
<tr>
<th>Rater level</th>
<th>Melanoma</th>
<th>Melanocytic nevus</th>
<th>Seborrheic keratosis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sensitivity</td>
<td>Specificity</td>
<td>Sensitivity</td>
</tr>
<tr>
<td>Skilled</td>
<td>0.98 (0.92-1.00)</td>
<td>0.84 (0.51-0.96)</td>
<td>0.73 (0.33-0.94)</td>
</tr>
<tr>
<td>Beginners</td>
<td>0.83 (0.77-0.87)</td>
<td>0.85 (0.77-0.90)</td>
<td>0.66 (0.57-0.74)</td>
</tr>
<tr>
<td>DIVAT</td>
<td>0.88 (0.71-0.96)</td>
<td>0.87 (0.76-0.94)</td>
<td>0.77 (0.60-0.90)</td>
</tr>
</tbody>
</table>

DIVAT—You Only Look Once network model

Data are presented with a 95% confidence interval given in the parentheses.

**Conclusion:**

DIVAT’s classification performance for melanoma and melanocytic nevi was superior to the beginner raters. However, its performance in classifying seborrheic keratoses was lower than that of both the beginner and skilled raters, which we attribute to the smaller amount of labeled training data available for this lesion type.
White Rosettes in cutaneous sarcoidosis: a new dermoscopic finding

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Introduction & Objectives:

White rosettes are shiny white structures seen as four oval-shaped points that come together in the center. Earlier it was thought they were specific for actinic keratosis and squamous cell carcinoma, but they are noted in many other conditions.

Materials & Methods:

We describe the two first cases of cutaneous sarcoidosis demonstrating rosettes in dermoscopy.

Results (observations):

Observation 1: A 37-year-old patient presented with papular eruption of the face. Cutaneous examination revealed 5 reddish brown popular lesions involving the left forehead area and the upper lip. Dermoscopy showed translucent orangish background, radially disposed linear and branching vessels, and shiny white lines. White rosettes were also noted. Histological examination revealed confluent granulomatous structures with surrounding fibrosis with an intense granulomatous reaction around hair follicles. The diagnosis of cutaneous sarcoidosis was made.

Observation 2: An 87-year-old women presented with maculopapular eruption. Dermatological examination revealed multiple brownish-red plaques, papular and maculopapular lesions over nose, neck, trunk, elbows, forearms and legs. Dermoscopy showed linear and branching vessels over translucent yellowish–orange structureless area and multiple white rosettes. Histological examination noted several granulomas in the dermis and heavy cellular infiltration and fibrosis around hair follicles. Systemic workup confirmed sarcoidosis with pulmonary and cutaneous involvement.

Conclusion:

Rosettes are the result of the pathological process involving the follicular and perifollicular areas. In our report, histopathological examination demonstrated granulomas, heavy cellular infiltration and fibrosis around hair follicles. These findings can explain the appearance of rosettes in these two cases. We report a new dermoscopic finding in cutaneous sarcoidosis. These cases confirm also that white rosettes are not specific dermoscopic patterns.
Abstract N°: 1258

Two dermoscopic cases of dermal duct tumor

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Introduction & Objectives:

Dermal duct tumour (DDT), the rarest among the four histopathologic variants of poroma, is a benign skin adnexal neoplasm which harbours differentiation towards the intradermal portion of the sweat apparatus. Dermoscopic findings of DDT are not well-defined, with most studies focusing on poroma exclusively.

We herein describe two cases of histologically-confirmed DDT including its dermoscopic features.

Materials & Methods:

We herein describe two cases of histologically-confirmed DDT including its dermoscopic features.

Results:

The first case concerns a 38-year-old woman with a 4-year history of a slow-growing, painless, well-defined papule of 6x6 mm in diameter on the scalp. On dermoscopy, the lesion showed a red-orange with yellowish structureless areas and eccentrically located blue-grey ovoid nests, a small erosion and a vascular pattern consisting of linear irregular and branched vessels of different length and calibre. The second case regards a 71-year-old male that referred to our dermatology unit for a 3x3 mm in diameter normopigmented papule on his left knee. On dermoscopy, the lesion showed a grayish-white background with white and yellowish circular-shaped areas of different dimension, and a vascular pattern consisting of linear irregular vessels (some of them with a hairpin morphology) of medium and thin calibre.

Conclusion:

Since only two cases of the dermoscopic findings of DDT have been reported in the literature, we would like to add new information to this topic.
Profile of patients in dermoscopic consultation

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Introduction & Objectives: Dermoscopy is a technique that improves the clinical diagnosis of dermatological lesions. The purpose of this study is to describe the profile of patients in the dermoscopy consultation.

Materials & Methods: This is a retrospective descriptive study conducted from March 2021 to May 2022. All patient data obtained for the dermoscopic consultation were included.

Results: In 14 months, 336 cards with dermoscopy consultation were identified. The mean age was 48.16 years (range from 1 year to 95 years). The most common dermoscopic diagnosis was a melanocytic nevus in 65 cases (19%), followed by a seborrhic keratosis in 43 cases (12.79%). The number of diagnosed basal cell carcinomas was 37 (11%) and the number of actinic keratosis 17 (5%). Dermoscopic features of squamous cell carcinoma were induced in 17 (5%) patients. Trichoscopic examination was requested in 34 patients (10%), with a favorable outcome for alopecia areata in 11 cases, trichotillomania in 8 cases, and discoid lupus of the scalp in 9 cases. Of all dermoscopy inquiries, melanoma was reported in 9 patients (2.67%), including two lentigo maligna melanoma.

Dermoscopy is part of the dermatological clinical examination; it helps to make diagnostic or therapeutic decisions. In our series of 336 reasons for seeking dermoscopic examination, this examination allowed the diagnosis of benign melanocytic nevi in 65 cases (19%) and skin biopsy was avoided, as well as in 43 cases (12.79%) of clinically suspicious seborrheic keratosis. A melanoma was induced in 9 patients (2nd67%), leading to an excisional biopsy to confirm the diagnosis. Basal cell carcinoma was diagnosed in 37 patients (11%) and squamous cell carcinoma in 17 (5%), requiring surgery or local antimitotic treatment. Trichoscopic examination enabled the diagnosis of discoid lupus of the scalp in 9 cases and alopecia areata in 11 of the 34 patients with scalp alopecia. 8 cases of trichotillomania mainly affected children.

Conclusion: Our series outlines the different reasons for dermoscopy consultation in dermatology. This is a promising technique that should be generalized in the various consultation centers.
Abstract N°: 1498

Dermoscopic assessment of Vitiligo disease activity

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Title: Dermoscopic assessment of Vitiligo disease activity

Introduction & Objectives:

Vitiligo is an autoimmune condition resulting in a loss of skin pigmentation. Determining the activity of vitiligo is important to assess the prognosis and to choose the appropriate treatment. Dermoscopy is of great value in differentiating vitiligo from other hypopigmentations. The aim was to describe the dermoscopic findings of vitiligo and to correlate them with the activity of the disease.

Materials & Methods:

We conducted a prospective transversal uni-centric, descriptive and analytical study. According to the theory of lesion stability, we collected a sample of 330 “vitiligo lesions” from 233 patients with confirmed vitiligo followed in the dermatology department. We categorized these lesions according to their evolutionary mode into four groups: progressing (37.6%), repigmenting (22.7%), stable (20.3%) and recent onset lesions (19.4%). A DermLite4 dermoscope was used to analyse the general structure, the intra-lesion analysis, the border and the peri-lesion analysis. Qualitative variables were described as percentages for each dermoscopic sign in the overall sample and in each group. Pearson chi square test was used for categorical data. A p<0.05 was used to determine statistical significance. All statistics were achieved using SPSS software v21.

Results:

The most common overall structure was white structurless areas associated with intralesional leukotrichia and perifollicular hyperpigmentation.

The border was blurred in 74% of cases and hyperpigmented in 31% of cases.

62% of the sample had perilesional skin changes represented mainly by leukotrichia and alteration of the normal skin network.

The presence of a trichrome pattern, reverse network, nacreous white globules, starburst, comet-tail pattern, microkoebner, dotted vessels, residual peripilar pigmentation with leukotrichia, perilesional abnormalities like polka dots, perifollicular depigmentation, and reverse network were statistically in favor of a progressing lesion.

The absence of progression signs associated with a sharp border was statistically in favor of a stable lesion.

The main markers of repigmentation were perifollicular or border hyperpigmentation, erythema and intralesional telangiectasias.

A new-onset hypopigmented lesion with an attenuated network or a perifollicular depigmentation was in favor of early vitiligo.
Two new dermoscopic signs were identified: the distally pigmented bicolored hair associated with recent lesions, and the proximally pigmented bicolored hair as a new sign in the repigmenting group.

**Conclusion:**

The progression of vitiligo is difficult to predict. Our study shows that the dermoscopic signs are statistically correlated to the vitiligo activity, thus allowing an appropriate management. It is interesting to follow a systematic analysis of the lesion as we have proposed in our work to highlight the rich variety of signs that can be found.
Abstract N°: 1600

Benign lymphangiomatous papules 10 years after radiotherapy

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Introduction & Objectives:

Benign lymphangiomatous papules (BLP) are lymphatic proliferations that may arise in the skin after radiation therapy. A 58-year-old female presented with irritated, flat-topped papules and vesicles over the right outer breast. Her lesions have developed in an area that had been previously irradiated for invasive lobular carcinoma. Dermoscopy examination revealed slightly erythematous lacunae with underlying vasculature and focal hyperkeratosis. This was suspicious for a lymphangioma, and a subsequent punch biopsy of the skin was consistent with BLP.

Materials & Methods:

Results:

Conclusion:

BLP lesions may present as papules or vesicles and appear slightly erythematous to translucent. BLPs typically develop near a surgical scar or within an irradiated area. Radiation therapy may induce fibrosis and obstruct the lymphatic system, leading to the subsequent dilation of these vessels and resulting in the cutaneous appearance of BLPs. When evaluating lesions in the setting of prior radiation, differential diagnoses may include the recurrence of a malignant lesion, squamous cell carcinoma, and atypical vascular lesions. BLPs may be treated if concerning for irritation or cosmesis.
Abstract N°: 1770

Dermoscopic profile of Cutaneous Leishmaniasis

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Introduction & Objectives:

Cutaneous leishmaniasis (CL) is a protozoan parasitic infection transmitted by a sandfly. It is characterized by a wide clinical polymorphism, hence the interest of dermoscopy to guide the practitioner. The aim of our study is to evaluate the different dermoscopic characteristics of CL lesions.

Materials & Methods:

This is a retrospective study including 15 patients with 113 lesions followed for CL at the Dermatology department of the Mohamed VI University Hospital in Oujda

Results:

We collected data from 15 patients. The mean age was 26.3 years with a male-to-female ratio of 6. The mean number of lesions per patient was 8.2 (1-55). CL was localized in 64% of cases, diffuse in 21.5% of cases, and sporotrichoid in 14.5% of cases. The mean duration of evolution was 5.2 months. One hundred and thirteen CL lesions were clinically identified. The face was affected in 10.7% of cases, the limbs in 70.5%, and the back in 18.8%. The papulo-nodular form was observed in the majority of cases (54.5%). Detailed dermoscopic examination showed that erythema was present in 100% of lesions, ulceration in 62.5%, white scales in 74% of cases, and yellow scales in 46.4% of cases. White areas without structure were present in 31.3%, a white starry pattern in 43.8%, yellow tears in 37.5% of cases, and a peripheral pigmentation in 37.5% of cases. The most frequent vascular structures were: glomerular vessels (GV) in 75%, linear vessels (LV) in 46.4%, followed by comma vessels in 39.3%, arborescent vessels in 16%, hairpin vessels in 18.7%, and tortuous vessels in 4.4%. We also noted in 21.4% of cases a concentric arrangement of a central crusty vascularized zone surrounded by a pale pink zone dotted in places by white structures and a pigmented peripheral zone.

Conclusion:

LC is a parasitic disease that remains endemic in Morocco. Its clinical polymorphism makes its diagnosis difficult. The dermoscopic signs found in our study are reported in the literature, particularly in studies conducted in Morocco and Tunisia, as well as the study by Llambrich et al. However, apart from the tear-like aspect and the white starry aspect, these structures are not specific to LC as they are also seen in other pathologies. Furthermore, we noted in our study a particular aspect of concentric zone distribution. The presence of dermoscopic signs suggestive of LC (yellow tears, white starry aspect, vascular polymorphism) leads us to suspect misleading presentations.

Dermoscopy is a non-invasive means of exploration and some signs are very indicative of the diagnosis.
Abstract N°: 1972  

**Juvenile dermatomyositis and dermoscopy**

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**Introduction & Objectives:**

Juvenile dermatomyositis is a heterogeneous and multisystemic disease whose diagnosis can be difficult, particularly in the face of atypical forms such as amyopathic forms; its prognosis is difficult to predict, particularly in the face of pulmonary involvement, skin ulcerations, muscle sequelae and subcutaneous calcinosis.

Given the skin involvement, the dermatologist is one of the first specialists to be called upon to make the diagnosis.

Due to the increasing role of dermoscopy in the daily practice of the dermatologist and the absence of an article describing dermoscopy of juvenile dermatomyositis, we report the dermoscopic skin and periungual aspects found in our 13-year-old patient with juvenile dermatomyositis.

**Materials & Methods:**

A 13 year old child, with no previous history of dermatomyositis, presented for 5 months with pruritic erythematoviolaceous maculo-papules of spinulosic disposition on the dorsal surface of both hands with involvement of the extension surface of the interphalangeal joints, elbows and knees. The same lesions are present on the ulnar border in bands. The rest of the clinical examination was unremarkable, notably no generalized or sub-patellar hypertrichosis, no skin or muscle calcinosis, no necrotic lesions or ulceration, and no lipodystrophy.

Neuromuscular examination is normal.

**Results:**

Dermoscopy of the papules shows an erythematos background, dotted vessels (skin vasodilation) and white scales (hyperkeratosis).

Periungual dermoscopy of the third finger of the non-dominant hand reveals a rarefaction of vessels with the presence of tortuous mega-capillaries (about 3/mm) and small plate-like haemorrhages with thickened cuticles.

**Conclusion:**

These dermoscopic aspects are very similar to those of adult dermatomyositis, but given the lack of literature, it is worthwhile to study the dermoscopy of this unusual dermatosis.
Abstract N°: 2178

**Epidemio-clinical and dermoscopic profile of melanocytic nevi**

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**Introduction & Objectives:**

Melanocytic Nevus are benign cutaneous melanocytic tumors. They are classified according to a set of clinical and histopathological criteria of which dermoscopy constitutes a bridge between them, allowing to predict their positive and histopathological diagnosis. Our aim is to examine the epidemiological, clinical and dermoscopic characteristics of melanocytic nevi and to look for a correlation between these different parameters.

**Materials & Methods:**

This is a prospective cross-sectional, descriptive and analytical study over a period of 18 months in the dermatology department, including adults aged over 18 years with nevi. The photos were taken by a Dermlite 4 dermoscope coupled to an IPHONE camera and analyzed by the same examiner.

The statistical study has used the KHI 2 and Fisher tests on SPSS stastics version 23 software. P values less than 0.05 were considered statistically significant.

**Results:**

In our study, 2000 nevi from 580 patients have been collected. The age distribution was 18-29 years (34.3%), 30-49 years (49.4%) and >50 years (16.3%). Dark phototypes (IV, V, VI) were the predominant (54%). Sun exposure was found in 70.5%. The cervico-cephalic extremity was the predominant site of lesions (47%) followed by the trunk (24.4%), the limbs (21.7%), the palmo-plantar region (3.7%), the scalp (2.1%), the mucous membranes and the nails (1.3%).

We classified the nevi into acquired nevi (90.6%), congenital nevi (2.7%) and particular nevi (8.7%) (blue nevus (4.5%), spilus nevus (1.1), Ota nevus (0.7%), lastly halo nevus, Beker and Meyerson nevus (0.3%).

Clinically, the average size of acquired common nevi was 8 mm while for congenital nevi was 5 cm. Dark brown nevi were the most dominant (68.9%), light brown (26.6%), black nevi 10% and blue nevi (5.4%). 45.8% of nevi were papules, 44.1% were macules, 8% were nodules and 2.2% were plaques. On dermoscopy, the reticular pattern was the most frequent (30%), homogeneous (27%), globular (24%), compound (14%). For palmoplantar nevi, in the 72 cases, the pattern parallel to the furrows was the most frequent (63.8%) followed by the lattice pattern (20.8%) and fibrillated (11.1%). The most frequent vascular pattern was irregular linear vessels in 7.4% of cases.

The correlation between age and dermoscopic pattern showed that the reticular pattern was most frequent in the under-50 age groups while the globular pattern was dominant in the age range > 50 years, with a statistically significant relationship (p= 0.0001) as well as the correlation between topography and dermoscopic pattern was significant (p= 0.0001) for the globular pattern with the head and neck area and the reticular with the trunk and limbs. A significant correlation of the globular, pavimentary and homogeneous patterns with the dermal nevus, while the reticular pattern with the junctional nevus (p= 0.0001).

**Conclusion:**
Dermoscopy is a non-invasive technique that allows visualization of deep skin structures as well as monitoring of nevi over time. Analysis of the different dermoscopic aspects of nevi and their variations will help us to determine the suspicious or non-suspicious character of the nevus allowing to avoid excessive excisions.
Abstract N°: 2249

**becker’s nevus and morphea: a rare association or coexistence**

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**Introduction & Objectives:**

Morphea is a chronic dermatological condition characterized by skin induration and sclerosis resulting from fibrosis of the dermis and underlying tissues.

On the other hand, Becker’s nevus is an epidermal nevus that presents as a hyperpigmented patch with hypertrichosis, typically appearing in adolescence.

The coexistence of these two conditions in the same patient and anatomical site is exceptionally rare.

**Case report:**

We report a case of a 20-year-old female patient who presented with a one year-history lesion of left forehead.

Physical examination revealed a well-demarcated, hyperpigmented triangular-shaped saber band lesion, slightly sclerotic, depressed, non-pruritic, measuring 1x 5cm. It is accompanied by an overlying patch of increased hair growth. On the scalp, there was an extension pigmented of the frontal lesion.

The lesion was firm to palpation, with no evidence of inflammation or ulceration.

Dermoscopy of the lesion was performed revealing distinctive features consistent with the coexistence of morphea and Becker’s nevus.

It showed a homogeneous brownish pigmentation with white areas and occasional erythema associated, both are a characteristic dermoscopic feature of morphea, reflecting the fibrotic changes and collagen deposition within the dermis.

Dermoscopy also demonstrated a target network, on a light brown background, focal thickening of network lines, target globules, with pigmentation in the form of circles around each follicle and perifollicular hypopigmentation.

Within the hyperpigmented area, multiple hypertrichotic follicular openings were observed. The hair emerging from these follicles appeared coarse and dark, corresponding to the clinical finding of increased hair growth.

A skin biopsy was performed, and histopathological examination confirmed the coexistence of morphea with Becker’s nevus.

**Discussion:**

The dermoscopic findings in our case are consistent with previously reported descriptions of both morphea and Becker’s nevus.

The coexistence of morphea and Becker’s nevus is exceedingly rare, with only one case reported in the literature. The underlying mechanisms leading to the simultaneous occurrence of these two distinct dermatological conditions remain unclear. It is possible that shared genetic factors or aberrant signaling pathways contribute to the development of both morphea and Becker’s nevus in affected individuals.
The clinical significance of the coexistence of morphea and Becker’s nevus lies in the potential diagnostic challenges it presents. The distinctive dermoscopic findings observed in our case can aid in establishing an accurate diagnosis and differentiating this rare combination from other dermatological conditions with similar clinical presentations. Awareness of this association is crucial to ensure appropriate management and treatment strategies for affected patients.

**Conclusion:**

We present a rare case of coexisting morphea and Becker’s nevus in a 20-year-old female patient, with distinctive dermoscopic features. The simultaneous occurrence of these two conditions highlights the complexity of dermatological disorders and emphasizes the value of dermoscopy in their accurate diagnosis. Further research is needed to elucidate the underlying mechanisms and establish optimal management approaches for patients with this uncommon association.
Abstract N°: 2319

Dermoscopic Features of Chronic Plaque Psoriasis Vulgaris Based on The Severity of Psoriasis Disease

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Dermoscopic Features of Chronic Plaque Psoriasis Vulgaris Based on The Severity of Psoriasis Disease

Introduction:

Psoriasis vulgaris is an immune-mediated inflammatory disease, involving the skin, joints, and nails. The most clinical type of psoriasis is chronic plaque. Psoriasis is usually diagnosed clinically, based on the characteristic morphology and distribution of the lesions. Dermoscopy is a non-invasive diagnostic tool that visualizes the structures under the skin, such as vascular structures and other subtle features, that are not visible to the naked eye. Knowing the dermoscopic appearance of plaque psoriasis according to its severity will help the diagnosis and monitoring of the treatment response. The aim of this study was to evaluate the dermoscopic findings in patients with psoriasis lesions according to their level of severity.

Materials & Methods:

This cross-sectional study included a total of 27 patients with chronic plaque psoriasis from the Dermatology Outpatient Clinic, from January to April 2023. No systemic or topical treatment was used for at least 3 months prior to the study. The diagnosis of psoriasis was clinical. A dermoscope was used on certain sites of the body that presented with chronic plaques, using 10-fold magnification and avoiding firm pressure. The severity of diseases [Body Surface Area (BSA), Psoriasis Area and Severity Index (PASI), Physician Global Assessment (PGA), and Dermatology Life Quality Index (DLQI)], and dermoscopic features were assessed blinded by two dermatologists. The study protocol was approved by the ethics committee from a local Faculty of Medicine.

All clinical data were analyzed by descriptive statistics. The correlation between dermoscopic features and severity of psoriasis (BSA, PGA, PASI, and DLQI) was analyzed by using the chi-square test (α value = 5%). The correlations were considered significant if the P values < 0.05.

Results:

A total of 27 patients with chronic plaque psoriasis, including 17 males and 10 females, mean age 44.48 ± 13.89 years, and the duration of disease ranged from 2-24 years (median 7 years). The severity of psoriasis patients based on BSA was severe (40.7%), mild (37%), and moderate (22.2%). Based on PASI scoring was mild (63%) and moderate (37%). Based on the PGA scale was mild (40.7%) and moderate (40.7%). According to the DLQI scoring was severe (63%), mild (22.2%), and moderate (14.8%). All patients with chronic plaque psoriasis showed pinkish/red backgrounds, red dots, and white scales on dermoscopy. Other dermoscopic features were glomerular vessels (63%), hemorrhagic dots (48.1%), red globular (44.4%), hairpin vessels (25.9%), and serpiginous vessels (3.7%).

Significant correlations were found between the glomerular vessels with BSA (p = 0.023), the red globular and hemorrhagic dots with PASI (p = 0.004, p = 0.011, respectively), and the red globular with PGA (p = 0.003). However, none of these dermoscopic features were correlated with DLQI scores.

Conclusion:
Our study highlights the use of dermoscopy at various psoriasis severity levels. The pinkish/red background, red dots, and white scales were found in all cases of chronic plaque psoriasis and are well-known diagnostic criteria for plaque psoriasis. Other dermoscopic features, such as red globular, glomerular vessels, and hemorrhagic dots, were significantly correlated with chronic plaque psoriasis and can be alternative criteria in diagnosing or monitoring the treatment response of plaque psoriasis.
Abstract N°: 2422

Dermoscopic patterns of cutaneous metastases

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Introduction & Objectives:
The cutaneous localization of metastases is scarce with a prevalence of 1 to 10%. Although histology is the GOLD standard, dermoscopy remains a non-invasive diagnosis approach. Our work aims to describe the different dermoscopic aspects of cutaneous metastases confirmed histologically and managed in our hospital setting.

Materials & Methods:
This is a retrospective and descriptive study, gathering patients with histologically confirmed cases of skin metastases, spread over 5 years from June 2018 to March 2023.

Results:
We collected 20 cases with cutaneous metastases, of which 9 patients had breast cancer, 4 cases had bronchial adenocarcinoma, 4 cases had malignant haematopathies including 2 Hodgkin lymphomas, 1 IgA lymphoma, and 1 multiple myeloma, and 1 case had bladder adenocarcinoma and 1 case had ungual melanoma.

A female predominance was noted with a male-to-female ratio of 0.53 and a mean age of our patients at 53.8 ± 3.5 years.

The diagnosis of cutaneous metastases revealed the primary cancer in 20% of cases. Clinically, the most common presentation was a poorly defined, infiltrated erythematous patch, while others presented with painless, firm nodules anatomically close to the site of the primary tumor, metastatic lymph node, or surgical scar.

The main abnormalities noted on dermoscopy were represented by white structureless areas (45%); erythematous structureless areas (80%); peri-lesional erythema (80%); a white veil (55%); a blue veil (15%); peripheral grayish patches (35%); whitish lines (30%); brown/black globules (20%); pigmented lines (15%); a brown septum (15%). We also noted a high prevalence of vascularity on dermoscopy, representing 75%, with the presence of serpentine vessels in 55%, hairpin vessels in 15%, dotted vessels in 65% of patients, comma vessels in 5%, and arborizing vessels in 70%.

Cutaneous metastases can occur synchronously or metachronously with the diagnosis of the primary tumor, but they can occasionally represent an initial manifestation of an internal malignant tumor, hence the importance of a careful clinical and dermoscopic examination.

Cutaneous metastases are often of poor prognosis, they can originate from various primary tumors, but breast cancer and lung cancer are the primary types of cancer that are most likely to cause cutaneous metastases.

Their clinical appearance varies from multiple or single plaques or patches, to nodules, and ulcers. On dermoscopy, our results are consistent with those of Karen et al. where vascular patterns were the most frequent dermoscopic sign and the most common subtype was the serpentine pattern. Other types were mainly arborizing vessels, dotted vessels, and comma vessels. Thus, vascular patterns may suggest the role of neoangiogenesis in their
pathogenesis and may also have prognostic value

The other dermoscopic signs found in our series, including white and erythematous areas without structure, white lines, peripheral globules or spots, as well as the presence of blue/white veil, have also been reported in the literature across different series and case reports.

**Conclusion:**

Skin metastases remain a diagnosis challenge. Due to their potential implications in prognosis and management, a prompt diagnosis of these lesions is crucial. Despite the increasing use of dermoscopy in recent years, results are rarely reported, due to the uncommon nature of this entity, as well as the limited data on the use of dermoscopy in this context.
Abstract N°: 2603

Usefulness of dermoscopy in Kaposi’s sarcoma

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Introduction & Objectives:
Dermoscopy is a rapid and non-invasive diagnostic tool that allows visualization of morphological characteristics that are often imperceptible to the naked eye. Kaposi’s sarcoma is a neoplasm characterized by anti-proliferative, multicentric lymphatic cell growth, with cutaneous and visceral expression associated with HHV-8. The aim of our work is to describe the different dermoscopic aspects of Kaposi’s sarcoma managed in our department.

Materials & Methods:
This is a retrospective and descriptive study, spread over 9 years from January 2014 to March 2023, including all cases of Kaposi’s sarcoma identified based on clinical criteria and confirmed histologically.

Results:
A total of 16 patients were included. We noted a male predominance with a male-to-female sex ratio of 1.6 and a mean age of our patients at 74.25 ± 7.81 years, with extremes of 56 years and 86 years.

The delay between the appearance of the tumor lesion and the consultation ranged from 3 months to 4 years.

Eighty percent of our patients had classical or Mediterranean Kaposi’s sarcoma, while 20% had iatrogenic forms. None of our patients had HIV infection, and HHV8 serology was performed on 13 patients, which was positive in 12 patients. The lesions were mainly located on the extremities.

Regarding the dermoscopic aspect: All lesions presented a bluish-reddish, violaceous, homogeneous pigmentation.

Dermoscopy also revealed a scaly surface with whitish scales in 68% of patients, white lines in 37.5%, white areas without structure in 25%, the collar sign in 18.75%, brown globules in 18%, and the “rainbow pattern” was observed in only 2 patients (12.5%).

As for vascular architecture, it was absent in 56.8% of cases. The most common pattern was the serpentine pattern (31.2%), followed by dotted vessels (6%) and coiled vessels (6%).

Conclusion:
Kaposi’s sarcoma is a rare malignant neoplasm that depends on infection with human herpesvirus 8. It presents as violaceous, red-blue or dark brown macules, plaques, and nodules that can sometimes be exophytic, ulcerated, or hemorrhagic.

There are four clinical subsets: classic, endemic, iatrogenic, and HIV-related.
The dermoscopic features of Kaposi’s sarcoma were first described in 2009 by Hu and colleagues.

According to data available in the literature, dermoscopy in our patients revealed that blue-red-purple pigmentation was the most common dermoscopic feature in Kaposi’s sarcoma, corresponding to the presence of eosinophilic hyaline globules and vascular structures in the deep dermis; followed by scaly and flaky surface in 68% which corresponds to focal hyperkeratosis with variable thickening of the cornified layer, which is consistent with the results of the study by Tourkali et al.

Brown globules were present in 18% of cases and finally, the “rainbow” or polychromatic zone without structure, which is currently considered as the specific dermoscopic pattern of Kaposi sarcoma, was rare, which is consistent with previous publications.

Other signs were observed in the study by Yilmaz et al, including the presence of white clods and four-point clods that have never been reported before.

In conclusion, there is no specific dermoscopic pattern, and few studies describe the dermoscopic characteristics of Kaposi’s disease, but several results can be considered highly suggestive.
Abstract N°: 2889

**Amelanotic Nevus of the Conjunctiva: clinical and dermoscopic clues**

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**Introduction & Objectives:**

 Conjunctival nevi (CN) are benign lesions with great variability in clinical and histopathological features. The distinction between benign nevi and other ocular neoformations is essential. Moreover, CNs may undergo a change in color and/or size over time. Although it is rare, spontaneous regression may also occur. It was reported that sometimes, conjunctival melanoma can arise as an amelanotic, highly vascularized lesion and in the literature, only few cases of amelanotic CN have been clinically and dermoscopically described.

**Materials & Methods:**

We describe a case of a young patient who presented an almost pigmentless conjunctival lesion, increased in size over some years with characteristic dermoscopic clues that were no pathognomonic for differential diagnosis. High resolution dermatoscopy, indeed, showed a flat, pinkish, conjunctival lesion, bordering the lateral margin of the iris disc, with a dense vascularization visible in transparency. Vessels originating from the periphery of the eye merged into a symmetrical and regular network around an amorphous orange-coloured structure. No pigment or polymorphism were detected as well as no bleeding nor discharge. Although the young age of the patient, we decide to perform a biopsy in order to better define the lesion.

**Results:**

Histological examination showed contiguous nests of round and spindle melanocytes near the basal cell region with oval basophilic and prominent nuclei and small nucleoli while Immunohistochemical analysis showed positivity for melanocytic markers SOX10, HMB45, S100, with distribution of the proliferating component in the sub-junctional area highlighted by epithelial marker CK-AE1. Vascular (DC 34+) and lymphoid (DC 45+) elements were identified. No cytological atypia nor foci of necrosis were detected. Some mitotic images were appreciated, in accordance with the patient’s age. On the basis of these findings, the diagnosis of amelanotic conjunctival nevus was made.

**Conclusion:**

Since in literature was reported that sometimes conjunctival melanoma can arise as amelanotic, highly vascularized lesion and only few cases of amelanotic CN have been clinically and dermoscopically described, our case showed one of the possible presentations of CN which had never been described up to now, and which should be considered for differential diagnosis, in particular when choosing between clinical-dermatoscopic follow-up and surgical excision for the management of a small conjunctival lesion with no suspicious clinical features, especially because of the risks related to surgical approach.
The usefulness of dermoscopy for diagnosis and management of infantile hemangioma: A Case Series

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1Hedi Chaker Hospital, university of Sfax, Dermatology, Sfax, Tunisia

Introduction & Objectives:

Dermoscopy is a valuable tool for the analyse of the vascular architecture and the morphology of vessels. However, only few studies have investigated the usefulness of this technique in the diagnosis and the management of infantile hemangiomas (IHs).

The aim of this study was to investigate dermoscopic findings in IHs and elucidate the role of this tool in the management of these vascular tumours.

Materials & Methods:

Our study was conducted in the Dermatology Department of Hedi Chaker University Hospital in Tunisia. In this prospective study, we included all patients with IHs who presented to our department from August 2022 to December 2022. The diagnosis of IHs was made clinically. Dermoscopic examination was obtained using DermLite DL4.

Results:

A total of 13 patients with 15 IHs were enrolled with an average age of 10.38 months. Nine IHs were superficial (60%), five were mixed (33%) and one was deep (7%). Four patients (three with one IH and one with two IHs) were treated with oral propranolol (OP). The most common dermoscopic finding was well-demarcated lacunae separated by white septage. The colours of the lacunae and the background were: bright red in 8 cases of superficial hemangiomas (88.9%), dark red in 3 cases of mixed IHs (60%) and in one case of superficial IH, and red bluish in the two others mixed IHs (40%) and in the case of deep hemangioma. Regarding vessel morphology, the most frequently observed vessels were wavy vessels (86.67%), globular vessels (66.67%) and comma-like vessels (46.67%). The vessels morphology reflected the type of IHs. In fact, linear dilated and branched vessels were seen only in IHs with deep component. Ulceration was observed in 4 cases (26.67%) associated to area of white discoloration in 3 cases (20%). We also noted black dots, which represent thrombosed capillaries, in 3 cases (20%). Dermoscopic changes after treatment with OP included: reduction of erythema in all cases, appearance of white structureless areas in 4 cases (80%), a yellowish structureless area in one case and the reduction in size in one case with the appearance of a halo-like white coloration around the lesion. We also noted the disappearance of black dots present in 2 of the treated IHs.

Conclusion:

The most common dermoscopic feature of IHs is the presence of lacunae. The colour of lacunae varies from red to reddish-blue. Other additional features include polymorphous vascular. Furthermore, dermoscopy aids in subclassifying IHs. Indeed, superficial IHs demonstrate bright red lacunae while in deeper hemangiomas lacunae are blue or violaceous. Besides, dilated and branched vessels are observed only in deep and mixed IHs. Dermoscopy is also helpful to early detect complications. The presence of area of white discoloration, a sign of impending ulceration, is identified earlier with dermoscopy. Dermoscopic evaluation of IHs represents also an
interesting tool for assessing response to treatment. Dermoscopic changes can be identified early.
Clinical, dermoscopic and ultrasonic monitoring of the response to biologic treatment in patients with moderate to severe plaque psoriasis

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Introduction & Objectives:
Assessment of therapeutic response of psoriasis has relied traditionally on clinical observation and effective non-invasive tools are desirable. This study aim to investigate the value of dermoscopy and high-frequency ultrasound (HFUS) in monitoring of psoriatic lesions treated with biologics.

Materials & Methods:
Patients with moderate to severe plaque psoriasis treated with biologics were evaluated by clinical, dermoscopic and ultrasonic scores at weeks 0, 4, 8 and 12. Clinical scores, including Psoriasis Area Severity Index (PASI) and target lesion score (TLS), were evaluated at representative lesions. Dermoscopy was performed to assess the red background, vessels and scales on a 4-point scale and the presence of hyperpigmentation, hemorrhagic spots and linear vessels. HFUS was performed to measure thicknesses of superficial hyperechoic band and subepidermal hypoechoic band (SLEB). The correlation between clinical, dermoscopic and ultrasonic evaluation were also analyzed.

Results:
24 patients were analyzed and achieved 85.3% and 87.5% reduction of PASI and TLS, respectively, after 12 weeks of treatment. The red background, vessels, scales scores under dermoscopy were reduced by 78.5%, 84.1% and 86.5%, respectively. Some patients developed hyperpigmentation and linear vessels after treatment. Hemorrhagic dots slowly subside over therapeutic course. Ultrasonic scores were significantly improved with average reduction of 53.9% in superficial hyperechoic band thickness and 89.9% in SLEB thickness. TLS in the clinical variables, scales in dermoscopic variables, and SLEB in ultrasonic variables decreased the most significantly in the early stage of treatment (week 4) with 55.4%, 57.7%, and 59.1% (P > 0.05), respectively (Figure 1). Most of the variables, including the red background, vessels, scales and SLEB thickness, were strongly correlated with TLS (Table 1). The high correlations were also found between the SLEB thickness and the red background or vessels scores, and between the superficial hyperechoic band thickness and the scales scores.

Conclusion:
This study identified the usefulness of both dermoscopy and HFUS in the therapeutic monitoring of patients with moderate to severe plaque psoriasis and the correlation among clinical, dermoscopic and ultrasonic variables. These noninvasive modalities provide a new perspective and direction for the monitoring of psoriatic lesions treated with biologics.

Figures
Figure 1. Reduction in clinical, dermoscopic, and ultrasonic quantitative variables in the early stage of treatment (week 4)

Tables

Table 1. Correlation of dermoscopic and ultrasonic variables with TLSs at baseline and posttreatment

<table>
<thead>
<tr>
<th>Variables</th>
<th>Dermoscopic variable scores</th>
<th>Ultrasonic variables</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Red background</td>
<td>Vessels</td>
</tr>
<tr>
<td>TLS at baseline</td>
<td>0.647</td>
<td>0.412</td>
</tr>
<tr>
<td>TLS at 4 weeks</td>
<td>0.816</td>
<td>0.833</td>
</tr>
<tr>
<td>TLS at 8 weeks</td>
<td>0.726</td>
<td>0.807</td>
</tr>
<tr>
<td>TLS at 12 weeks</td>
<td>0.728</td>
<td>0.803</td>
</tr>
</tbody>
</table>

TLS, target lesion score; SLEB, subepidermal hypoechoic band

* P > 0.05 for this result
Implementation of a dermoscopy curriculum during residency at the University Hospital in Augsburg/Germany

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Introduction & Objectives:

So far there is no structured training program for dermoscopy during residency, neither at the Clinic for Dermatology at Augsburg University Hospital nor in many dermatological university hospitals in Germany. It is up to every resident’s initiative if and how much dermoscopy training he or she acquires during residency. This is the case even though dermoscopy is one of the core competences of dermatological training and use in daily clinic.

The study goal was to establish a structured standardized dermoscopy curriculum during dermatological residency at Augsburg University Hospital.

Materials & Methods:

First, a 6-month training rotation in imaging techniques (optical coherence tomography, confocal laser microscopy, sonography, histology, and dermoscopy) was created at the Clinic for Dermatology in Augsburg. An online platform (moodle) with dermoscopy modules was set up, which can be worked through from anywhere at any time. Additionally, practical skills were acquired under the face-to-face guidance of a dermoscopy expert. Participants were tested on their level of knowledge before and after the completion. Thereafter, their progress was reviewed. The test scores on correct diagnosis and management decision were analysed descriptively and statistically. The online material will further remain available for every participant.

Results:

The test results show a marked improvement of the residents’ dermoscopy skills (66.6% / 87.9%). Mean pretest scores were 7.05, mean posttests scores were 8.94 out of 10 points in each case. Differences in relation to the entire result score and in relation to the correct diagnosis between pre- and posttests were significant (p < 0.001).

Conclusion:

The dermoscopy curriculum increases the users’ correct management decision and dermoscopy diagnoses. As an overarching result, there will be a longterm benefit for patients through the higher expertise of doctors, because in the future more skin cancer will be detected with dermoscopy, and fewer benign lesions will need to be excised. Furthermore, the dermoscopy curriculum can be offered to interested medical students, nurses, and doctors of other medical specialties. It is planned to integrate the online course into an accredited education curriculum for dermoscopy.
Comparison of Eye tracking Parameters During Dermatoscopic Assessement of Benign and Malignant Lesions

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Introduction & Objectives:
Eye tracking has been used in different fields of medicine. Parameters such as fixation count, fixation duration and saccade amplitude can be used to analyze the cognition processes in physicians while assessing medical images. It can be suggested that, to a large extent, these are dependent on the physicians’ knowledge and level of expertise. Dermatoscopy is a non-invasive diagnostic procedure that is used by dermatologists to evaluate cutaneous lesions. The vast majority of lesions seen by the dermatologists on a day to day basis are benign. Therefore, one can expect that the dermatologists can be more familiar with the dermatoscopic features of benign lesions, rather than those of malignant. The aim of our study was to track and compare eye movements of dermatologists while they were assessing dermatoscopic images of benign and malignant lesions.

Materials & Methods:
Eye-tracking was performed with an EyeLink 1000 Plus (SR Research, Canada) device. Dermatologists (N=21) assessed dermatoscopic images of benign (N=20) and malignant (N=20) cutaneous lesions. Images were acquired from an open-access database. After each dermatoscopic image the participants had to determine the diagnosis. Dermatoscopic images were demonstrated for up to 5 seconds, however, the response had to be given as soon as possible. Fixation count, fixation duration, saccade amplitudes and response time were measured and compared between the participants. Independent sample T-test was used for data analysis. P value below 0.05 was considered statistically significant. Areas of interest were correlated with dermatoscopic features.

Results:
Response time was significantly lower when assessing benign lesions in comparison to malignant lesions (3397.28 SD=1483.99 ms vs. 3681.36 SD=1390.37 ms, p=0.005), as well as the fixation count (9.62 SD=4.66 vs. 11.08 SD=4.80, p<0.001). Average fixation duration was significantly longer when assessing benign lesions (313.90 SD=91.97 ms vs. 293.57 SD=64.70 ms, p<0.001). Nevertheless, there was no statistically significant difference in the average saccade amplitude (3.65 SD=1.94 deg. vs. 3.66 SD=1.66 deg., p=0.917).

Conclusion:
The response time of the dermatologists and the fixation count was lower while assessing benign lesions, whereas the average fixation time was higher. There is an obvious difference in the way dermatologists visually assess benign and malignant lesions that corresponds with the assumption that they are more familiar with benign lesions.
Abstract N°: 3544

**Dermoscopy sheds light on perioral lesion mimicking Herpes: An important diagnostic tool**

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**Introduction & Objectives:**

Lymphangioma circumscriptum is a superficial lymphatic malformation characterized by clusters of translucent vesicles that resemble frog spawn soon after birth, although they can occur at any age. Dermoscopy is useful in improving the diagnosis of lymphangioma circumscriptum by identifying characteristic structures and patterns. We report a case of a patient with a perioral lesion initially diagnosed as herpes. However, thanks to the dermatoscope, the diagnosis was rectified.

**Case report:**

A 31-year-old woman with a niece who was treated for a venous malformation consulted us for management of a perioral lesion that had been present since childhood. She had been treated with valacyclovir on several occasions without improvement. Our examination revealed vesicles grouped in clusters with hemorrhagic content in the perioral area. Dermoscopy revealed red lacunae and a hypopyon aspect, leading to the diagnosis of perioral microcystic lymphangioma. We decided to treat her with a vascular laser.

**Discussion:**

Diagnosing lymphangioma circumscriptum is typically straightforward based on its clinical appearance and behavior. Occasionally, solitary lesions or atypical appearances may be present. The differential diagnoses for lymphangioma circumscriptum include haemangiomas, angiokeratomas, pyogenic granulomas, angiosarcomas, cutaneous metastases, warts, and molluscum contagiosum. Dermoscopy can help in making the correct diagnosis, and the most common dermoscopic features include lacunae, vascular structures, white lines, and the hypopyon sign. Lacunae are multiple, clustered, well-demarcated, yellowish, reddish, or dark-colored structures with a round to oval shape. In some cases, the hypopyon sign is observed, which is a two-tone lacuna or a color transition from dark (at the bottom) to light (at the upper part) in the same lacuna. This phenomenon is due to the sedimentation of blood in the dilated lymphatic channels. Micro-shunts between small blood vessels and lymphatic channels may be responsible for the extravasation of erythrocytes into the dilated lymphatics. All of these dermoscopic signs helped us to orientate the diagnosis of our patient and to stop taking chronic antiviral drugs. This allowed us to provide appropriate treatment with vascular laser.

**Conclusion:**

The hypopyon sign and lacunae are highly characteristic of lymphangioma circumscriptum, which highlights the importance of a thorough dermoscopic examination in cases of chronic lesions that are resistant to typical treatments. It is essential not to consider any peribuccal lesion consisting of vesicles as a simple herpes.
Generalized Hailey-Hailey disease due to Sarcoptes scabiei superinfection – correct diagnosis made by dermoscopy

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Introduction & Objectives:

Hailey-Hailey disease is a rare hereditary acantholytic condition characterized by the presence of vesicles and crusted erosions typically in the flexural areas of the body. The disease shows autosomal dominant heritance and the underlying defect is the mutation in the ATP2C1 gene encoding a Ca2+/Mn2+ ATPase. Generalized presentation of the disease is extremely rare, and usually triggered by bacterial or viral infection, arthropod infestation or drug intake. Herein we present a patient with an atypical, generalized exacerbation of the disease, in whom thorough dermoscopic examination led to the identification of the trigger factor – Sarcoptes scabiei superinfection.

Case presentation:

A 67-year-old Caucasian man was referred to the Department of Dermatology with an exacerbation of Hailey-Hailey disease, accompanied by intense pruritus. The disease was diagnosed 19 years prior to hospitalization. The course had so far been mild, with recurrent erythematous plaques and erosions confined to the armpits and groins. For the current exacerbation, the patient had been treated with topical and systemic corticosteroids (prednisone up to 30mg per day), acitretin and tetracycline, however little improvement had been observed.

On physical examination, erythematous plaques with superficial linear fissures and erosions were observed in the axillary and inguinal areas. In addition, numerous excoriated papules and erosions with surrounding erythema were present on the back and chest. Longitudinal white bands were observed on the fingernails. Dermoscopy of the lesions in the armpits and groins showed a combination of white and pink areas, separated by small linear erosions. The whitish areas were irregularly raised and folded, giving the appearance of a “crumpled fabric”. On the trunk, yellow structureless areas, corresponding to erosions, on a pinkish background were noted. However, between the erosions dark-brown triangular structures at the end of whitish serpiginous areas (“jet with contrail”) were observed. Videodermoscopy (Canfield D200EVO Videodermatoscope) enabled better visualization of the mites and confirmed the diagnosis of scabies.

The patient was treated with topical permethrine twice, 7 days apart. Significant improvement was observed after the therapy. Follow-up dermoscopic examination after 4 weeks did not reveal any mites. In the next stage, topical corticosteroids and methotrexate for Hailey-Hailey disease were started.

Conclusion:

We report a patient with an atypical presentation of Hailey-Hailey disease. Underlying skin condition could be conducive to scabies infection. On the other hand, scratching due to intense pruritus might have led in the presented patient to the development of acantholytic lesions beyond flexural sites. We would like to underscore the value of dermoscopic examination in every patient with an atypical course of the disease or not responding to standard treatment.
Abstract N°: 3628

Facial pemphigus vegetans mimicking squamous cell carcinoma: When dermoscopy plays tricks on us

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Keywords: Pemphigus vegetans, Dermoscopy, Direct immunofluorescence, Squamous cell carcinoma.

Introduction:

Pemphigus vegetans (PVeg) is a rare variant of pemphigus vulgaris (PVeg) (1-2% of cases) characterized by flaccid bullae or pustules that erode to form hypertrophic plaques and vegetating masses. Generally, the lesions are multifocal and localized on flexures, periorificial areas, and oral mucosa. Two clinical forms have been described in the literature. The Neumann type is characterized by vesicular and erosive lesions that evolve into vegetative plaques, a more severe clinical course, and less response to treatment. The Hallopeau type is a milder form characterized by pustules and may have spontaneous remission. To our knowledge, there are only a few reported cases of PVeg with exclusive facial localization and even fewer mimicking malignancies. The diagnosis is made based on clinical features, but the biopsy is mandatory to confirm it. There are no dermatoscopic reports of PVeg, but the presence of pustules, micro-vesicles, and erosions can guide us in its initial stage. Histological examination shows acantholysis, epidermal hyperplasia, papillomatosis, and intraepidermal eosinophilic and neutrophilic abscesses. Direct immunofluorescence (DIF) demonstrates intercellular deposition of IgG and C3.

Case presentation:

A sixty-three-year-old male was referred to us for an asymptomatic recurrent lesion of the right frontal area, which had been present for two years. Physical examination showed a 2 x 2.5 cm well-demarcated hyperkeratotic solitary plaque with an eroded surface. No intertriginous or oral mucosa involvement was seen. Dermoscopy revealed a predominantly white background with surface scale, multiple different sizes of keratin-filled follicular ostia, and white perifollicular circles surrounded by erythema (Figure 1A-B). He had an incisional 4 mm punch biopsy performed in an external health center that showed an invasive SCC. The lesion was excised entirely with Mohs micrographic surgery. The final pathology report discarded SCC and suggested warty dyskeratoma. Six months later, the lesion recurred as a superficial scaly plaque over the previous scar. Dermoscopy showed mainly follicular plugs, irregular pigmentation of follicular openings, and pseudo network areas (figure 1C-D). The original slides were reviewed in our pathology department. Microscopic examination revealed epidermal hyperplasia, papillomatosis, acantholysis, and intraepidermal eosinophilic and neutrophilic abscesses. (Figure 1E-G). An additional biopsy for direct immunofluorescence demonstrated intercellular deposition of C3 and IgG (Figure 1H). Histopathological findings were compatible with Pemphigus vegetans.

Conclusion:

PVeg is a rare variant of pemphigus vulgaris that occasionally presents as a solitary plaque, which can be confused with a tumor on clinical and dermatoscopic examination. Furthermore, an inexperienced pathologist may misinterpret a partial biopsy of the lesion as squamous cell carcinoma. Therefore, PVeg should be considered in the differential diagnosis if recurrence develops after complete removal. Evaluation by an experienced pathologist and direct immunofluorescence allows for correct diagnosis and proper management.

Figure 1.
Abstract N°: 3659

**Basal cell carcinoma in an Asian population–Dermoscopic and histological correlation.**

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**Introduction & Objectives:**

Basal cell carcinoma (BCC) is the commonest skin cancer in humans worldwide. The incidence of BCC in Asia is on the rise due to an ageing population. Early diagnosis of BCC is associated with better outcomes and lower treatment costs. Few studies have reported dermoscopic and histological features of BCC in Asian skin. We aim to evaluate the dermoscopic features with histological correlation in a group of Asian patients with BCC in Singapore.

**Materials & Methods:**

A retrospective study was conducted in a tertiary academic medical hospital in Singapore from November 2019 to March 2022. We recruited patients above the age of 18 years old with the clinical diagnosis of BCC. Clinical and dermoscopic photos were taken on DermLite DL4 and statistical analysis was performed on SPSS.

**Results:**

34 patients with a median age of 76.5 years old were recruited. 82.1% of patients presented with a pigmented lesion on the face. The commonest histological subtype is nodular (n=25), followed by infiltrative (n=4), nodulocystic (n=2), basosquamous (n=2) and reticular (n=1). The commonest dermoscopy features associated with nodular BCC were blue-grey ovoid nest, in-focus dots, short fine telangiectasias and ulceration. Other high-risk BCC subtypes presented with blue-grey ovoid nests, short fine telangiectasias and arborizing vessels. In the determination of low-risk BCC subtypes, blue-grey ovoid nests demonstrated a sensitivity of 0.80 and specificity of 0.50, whereas arborizing vessels has a sensitivity of 0.16 and specificity of 0.92. Histologically, blue-grey ovoid nests were confluent or elongated nests that corresponded to large pigmented tumour nests invading the dermis. Blue-grey in focus dots corresponds histologically to small tumour aggregates at the dermo-epidermal junction or superficial dermis.

**Conclusion:**

The identification of specific dermoscopy features e.g blue grey ovoid nests, commonly seen in low-risk nodular BCC, can provide clinicians clues about the different BCC subtypes. Patients with features suggestive of low-risk BCC subtype and are not keen to pursue invasive surgical interventions such as biopsy or surgical excision could potentially be treated with topical therapies. Telemedicine and teledermoscopy can be considered in remote areas where access to tertiary medical care is challenging.
The Role of Dermoscopy in Clinical Follow-up of Xeroderma Pigmentosum Patients

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Introduction & Objectives:
Xeroderma pigmentosum (XP) is a life-threatening disease with high rates of skin cancers. Therefore, it is important to establish the key rules in the follow-up of these patients in order to detect skin cancers, especially melanoma, in an early phase. The objective of this study was to share our experience in XP case series and determine the role and use of regular dermoscopic follow-up of suspicious melanocytic lesions and whole-body photographing in the follow-up of XP patients in addition to whole-body skin examination.

Materials & Methods:
This is a retrospective study that includes the analysis of the follow-up findings and medical records of XP patients who were followed up with whole-body skin examination, dermoscopic examination, and whole-body photographing between 2003 and 2021 in the Dermato-Oncology unit of a tertiary referral hospital.

Results:
Of the 19 patients, 10 were male and 9 were female. The youngest patient was 5 years old, and the oldest patient was 64 years old. A total of 234 lesions were excised in these patients. A total of 17 melanoma were excised, 11 of which were in situ and Breslow score of 3 of them were under 1 mm. The highest Breslow scores belong to the patients either who skip their appointments or who were not followed-up before.

Conclusion:
It was observed that regular full-body skin examination, whole-body photographing, and dermoscopic monitoring performed at 3-month intervals in XP patients are useful in detecting skin malignancies at an early stage and preventing unnecessary excisions in these patients.
Abstract N°: 3969

dermoscopic features of kyrle’s disease with its histological correlation

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Introduction & Objectives:

Kyrle’s disease (KD) is classified as a variant of acquired perforating disorders (APD).

The clinical diagnosis of KD could be hard, but recently some reports revealed interesting dermoscopic features that might facilitate the diagnosis.

Herein we report our dermoscopic constatation in a case who was diagnosed with KD histopathologically.

Materials & Methods:

A 42-year-old woman with primary biliary cholangitis, presented with a diffuse cutaneous eruption made of very pruritic pigmented lesions over her body evolving for 1 month.

On examination, we found numerous hyperkeratotic papules with central crusted keratotic plugs located in her limbs, back and lower abdomen. The rest of examination showed no abnormalities.

Dermoscopy found a 4-zonal concentric pattern with whitish scales in the center, a structureless whitish-gray zone bordering the central crusts, a pink structureless zone containing dotted vessel and peripheral brown pigmentation.

A biopsy specimen showed a thinned epidermis topped by parakeratotic plugging with epidermal invagination. The upper dermis included a moderate peri-vascular infiltration comprising lymphocytes and plasma cells.

All the above plead in favor of the diagnosis of KD.

Results:

KD often affects 30–50-year-old females. Its classification is controversial in the literature. In fact, some authors define KD as a subtype of APD, while others consider it as a variant of prurigo nodularis. In our patient, it is the central keratotic aspect of the papules that pointed us towards the diagnosis of KD.

Most case reports relate an association of KD with diabetes mellitus, renal disease, and less commonly liver disorders such as primary biliary cholangitis.

KD manifests as multiple, discrete, eruptive papules with a central keratotic plug and ulcerated hyperkeratotic nodules.

In 2020, Ozbagcivan published a report providing diagnostic tips in dermoscopy. Their observation described a 4-zonal concentric pattern identical to the aspect in our case.

On histopathology, there is a characteristic transepidermal elimination of abnormal keratin. According to the study of Ozbagcivan, the central crust corresponds to the erosion in the epidermis stuffed with keratin and extruded cell...
debris. The hypopigmented structureless area corresponds to acanthosis, hyper granulosis, and post-inflammatory pigmentation. The pink structureless zone with dotted vessels is due to the active dermal inflammation and increased vascularity. The hyperpigmented structureless zone is associated with the melanocytes and inflammatory cells.

To date, there have been no specific therapies of KD.

**Conclusion:**

We report an additional case of KD with its detailed dermoscopic features showing a strong correlation with the histological aspect of the disease. Even though histopathology is still the key exam for its diagnosis, dermoscopy could facilitate the clinical recognition of this spectrum of skin disorders.
Abstract N°: 4106

Dermal Nevi in Optical Super-High Magnification Dermoscopy

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Introduction & Objectives:

Dermal nevi (DN) are among the most common facial skin lesions. Although in the vast majority of cases, diagnosis is not difficult, the clinical and even dermoscopical image of those lesion can sometimes be ambiguous. Optical super-high magnification dermoscopy (OSHMD) owing to the possibility of visualization of the lesion in a magnification up to 400x gives the opportunity to find the novel diagnostic features and thus improve diagnostic efficacy.

Materials & Methods:

A 44-year-old woman with a 5-mm nodule on the skin of the abdomen, and a 47-year-old woman with a 3-mm nodule on the neck presented for dermoscopy. Standard dermoscopy (20X) and OSHMD (400x) was performed in both patients.

Results:

In the first patient, standard dermoscopy revealed pigmentation in the irregularly distributed brown blotches. Numerous comma-like vessels were present as well. In OSHMD, the vessels surrounded by multiple round structures of the same size corresponding to melanocytes were visible. In the second patient, standard dermoscopy revealed central dark-brown pigmentation and many linear curved vessels distributed around the entirety of the lesion. OSHMD showed large vessels surrounded by irregular distributed round structures of the same size and shape - these structures again corresponded to round melanocytes. Few more strongly pigmented homogenous structures were visible, most likely corresponding to deeper melanocyte nests. Both patients have undergone removal of the lesions and histopathology confirmed the diagnosis of DN in both lesions. According to the available literature, the presence of melanocytes uniform in size and shape throughout the entire lesion represents OSHMD dermal nevus criteria, therefore, those cells should at first be considered as melanocytes.

Conclusion: In addition to standard dermoscopy, OSHMD might be useful in diagnostic process of dermoscopically challenging lesions. This method can be particularly useful in the diagnosis of lesions located on the face, where the avoidance of unnecessary surgical interventions is of utmost importance.
Introduction & Objectives:

Alopecia areata is an autoimmune disease that causes non-scarring alopecia. Trichoscopy is a rapid, non-invasive and easy to perform technique that can help to identify the details and establish the diagnosis. The purpose of our study is to evaluate trichoscopy in pelagic children and compare it with that of adults.

Materials & Methods:

This is a retrospective, descriptive and analytical study of patients followed for alopecia in our dermatology department, conducted between June 2014 and February 2023.

The analytical study was performed using the chi-square test or Fischer test to compare categorical variables.

Results:

We collected 42 patients including 15 children and 27 adults. The mean age of the patients was 24.1 ± 10.5 years with a female predominance (sex ratio F/H of 1.8). The mean age was 31.5 ± 8.9 years for adults and 10.7 ± 2.87 years for children. The mean duration of the disease was 5.8 years, ranging from 3 months to 20 years. The clinical forms of the disease were distributed as follows: universalis (42.8%), plaque (38%), ophiasis (9.6%) and decalvating (9.6%). The dominant form in children was universalis, found in 46.7% of cases.

Overall, 61.9% of the patients had severe peladosis (SALT score ≥ 50%), 21.4% of the patients had moderate peladosis (SALT score between 21% and 49%) and 16.7% had minimal peladosis (SALT score ≤ 20%).

Trichoscopic examination showed a statistically significant difference between children and adults regarding the frequency of empty follicular openings (10/15 (66.7%) children // 6/27 (22.2%) adults) (p<0.004) and circular hairs (4/15 (26.7%) children versus 1/27 (3.7%) adults) (p<0.047).

Yellow dots were more frequently observed in adults 23/27 (85.2%) than in children 5/15 (33.3%). This difference was highly statistically significant (p<0.001).

Other trichoscopic features were blackheads (13/15 (86.7%) in children versus 18/27 (66.7%) adults), exclamation mark hairs (6/15 (40%) children versus 15/27 (55.6%) adults), tapered hairs (4/15 (26.7%) children versus 5/27 (18.5%) adults), broken hairs (4/15 (26.7%) children versus 8/27 (29.6%) adults), bent hairs (6/15 (40%) children vs. 7/27 (25.9%) adults), downy hairs (11/15 (73.3%) children vs. 21/27 (77.8%) adults), vertical regrowth (2/15 (13.3%) children vs. 2/27 (7.4%) adults), and tulip hairs (0/15 (0%) children vs. 3/27 (11.1%) adults); no statistically significant differences between children and adults were found.

Pohl-Pinkus constrictions were not observed in any patient.

Conclusion:
In the literature, there are few studies that have been interested in comparing the trichoscopic features of peladic children with that of adults, motivating the conduct of this study.

Based on our results, we found that the trichoscopy of childhood peladic differs from that of adults, with a significantly greater presence of empty follicular openings and circular hairs in children than in adults, confirming the data in the literature.

Yellow dots are significantly less frequent in children than in adults in our series as well as in the literature.

In the study conducted by Stephane Kandemir et al, a higher proportion of blackheads and broken hairs were reported in children with peladas, which is not consistent with the results of our study where no statistically significant difference was found.

Finally, we found no significant difference in the frequency of other trichoscopic features between children and adults, thus agreeing with the results of the literature.
Abstract N°: 4352

A rare case of follicular porokeratosis ptychotropica: clinical, dermoscopic and histological features

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Introduction & Objectives:

Porokeratosis is an epidermal keratinization disorder characterized clinically by annular plaques with keratotic ridge and an atrophic center. Several variants have been described, Porokeratosis ptychotropica (PP) has been recently individualized as a new variant. It is characterized by verrucous plaques localized in the regions of the buttocks, most commonly the gluteal cleft. Its dermoscopic features have been rarely reported. Herein, we describe a case of PP with follicular involvement and particular dermoscopic features

Materials & Methods:

A 48-year-old man with no particular medical history presented to our outpatient department with the chief complaint of pruritic gluteal lesions evolving for 15 years. Family history revealed no similar lesions. Physical examination noted well-demarcated, red-brown and verrucous plaques located on both buttocks with satellite roundish, hyperkeratotic, brownish papules. Dermoscopy showed a raised scaly rim, limiting a non-atrophic center with a cobblestone-like pattern, gray-brown dots, and pigmentation along the keratin rim. Interestingly, we noted prominent keratinaceous follicular plugging and follicular spicules in 2 lesions. Multiple polymorphous vessels are present within the keratin rim as well as peripheral vascularization adjacent to but outside the keratin rim. A skin biopsy specimen revealed cornoid lamella involving the follicular infundibulum. Based on clinical, dermoscopic, and histopathological features, the diagnosis of PP with follicular involvement was established. The patient was treated with CO2 laser vaporization for the verrucous lesions.

Results:

Since its first description by Lucker et al in 1995, about 50 cases of PP have been reported in the literature. Histopathology generally confirms the diagnosis showing multiple cornoid lamellae. Dermoscopy is of recognized value in assisting the diagnosis of porokeratosis. However, only few cases of PP described its dermoscopic features. The most common dermoscopic findings, which are not specific to this variant of porokeratosis, include a characteristic, hyperkeratotic rim, and dotted vessels. Interestingly, the peripheral polymorphous vessels observed in our case have been rarely described and to the best of our knowledge, the cobblestone-like pattern has not been yet reported in porokeratosis. It could be due to epidermal hyperplasia and hyperkeratosis. Moreover, the keratotic follicular pluggings have been recently reported in 3 cases: two in the face and one in the scalp. It reflects the follicular involvement in porokeratosis which has been rarely described with less than 20 reported cases. In fact, follicular porokeratosis is a newly described variant in which dyskeratosis extending into the follicular infundibulum is the hallmark of histopathology.

Conclusion:

In conclusion, we reported a rare case of follicular PP and highlighted its particular dermoscopic features including the prominent follicular keratotic plugs and spicules as a diagnostic key in the follicular involvement, the cobblestone-like pattern, and the peripheral polymorphous vascularization.
Abstract N°: 4438

Rainbow pattern in dermoscopy

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Introduction & Objectives:

The term rainbow (RB) was initially attached to Kaposi’s sarcoma (KS) and considered to be a very specific dermoscopic sign of this disease. However, this significant association has been debated in recent years due to the presence of RB pattern in other lesions.

The aim of our study was to show a panorama of kaposi and non-kaposi lesions with the rainbow pattern in dermoscopy, making its high specificity to KS not entirely accurate.

Materials & Methods:

This is a prospective study spread over a period of 8 months. All lesions were examined with the dermscope Dermlite DL4, with polarized and non-polarized light, with and without immersion liquid. Skin diseases have been classified as Kaposi and non-kaposi lesions. All tumors were confirmed histologically.

Results:

We collected 56 patients presenting the rainbow pattern in dermoscopy. 10 were Kaposi lesions and 46 were non-Kaposi lesions. This color pattern was seen only under polarized light, with or without immersion liquid. In KS, this pattern has been observed in skin and nail involvement, associated with other dermoscopic patterns: blue-reddish coloration, scaly surface, homogeneous purple coloration, white lines and white clods.

In non-kaposi lesions, vascular and non-vascular lesions presented the RB pattern in dermoscopy. It was observed mainly in scars (20 cases). All these patients had scleroatrophic scars; a history of burns was noted in four patients, tumor exeresis was done in thirteen patients and one patient presented this pattern after healing of his pyoderma gangrenosum. This pattern was associated in scars with structureless whitish placed over a white atrophic background, dotted and linear vessels.

In lichen disease, the RB was observed in 6 cases; five in lichen planus and one case had an extra genital scleroatrophic lichen. Dermoscopy of the lichen planus had also revealed Wickham’s striae, linear vessels and purplish areas.

In angiokeratoma, RB pattern was associated in 5 cases at dark lacunae, red lacunae and hemorrhagic crusts.

3 patients had pyogenic granuloma, dermoscopy found RB pattern associated at white collarette and vascular structures.

This pattern was observed also in basal cell carcinoma (3 cases). In dermoscopy other patterns was found: ovoid nests, arborizing vessels, erosion and blue-grey globules.

More rarely, the RB pattern was present in other tumors including epidermoid carcinoma (2 cases), cystic lymphangiomata (1 case), glomus tumor (1 case), keratoacanthoma (1 case), pigmented epithelioid melanocytoma (1 case), ewing’s sarcoma (1 case), dermatofibrosarcoma protuberans (1 case) and cutaneous
metastasis of a breast cancer (1 case).

**Conclusion:**

The RB pattern is an optical, non-specific phenomenon that has no particular diagnostic significance, explained histologically by the dilated vessels, covered by a cellular proliferation which play the role of diffraction. The search for other dermoscopic patterns is necessary to orient the diagnosis.
Abstract N°: 4502

**Trichoscopy in healthy individuals: Norms for measurable parameters**

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**Introduction & Objectives:**

Trichoscopy is a simple non-invasive tool used in calculating different hair parameters and the diagnosis of different hair/scalp diseases at variable magnifications. It provides information that help denoting underlying conditions.

Objective: The aim of this work is to describe the features and parameters of hair and scalp in healthy sample of Egyptian population using videodermoscopy. This may help to provide standard range of measurements of normal hair in both males and females in Egyptian population

**Materials & Methods:**

A non-randomized, observational study for features and parameters of hair structure, performed on 400 healthy Egyptian subjects with no hair/scalp complaint.

**Results:**

After detailed history, clinical examination and trichoscopic evaluation it was clear that hair density ranged from 100 to 200, terminal hair density ranged from 80 to 185.5, vellus hair density ranged from 1.1 to 32.2, hair thickness ranged from 0.051 to 0.086 mm, follicular units density ranged from 49 to 94.4, average count of hair per units ranged from 1.2 to 2.8 and yellow dots ranged from 0 to 3 and those numbers were variable according to the examined scalp area. The temporal area had the greatest number of vellus hair units (2.2 – 32.2). The double hair units were the predominant units throughout the scalp. Single hair units appeared mostly in the temporal area, while triple hair units were greater in the occipital area. The occipital area had the highest hair thickness, meanwhile the frontal area showed the greatest hair density.

Each scalp area has its own vascular pattern. Male subjects showed higher values regarding their hair parameters than the female subjects. Females who had previously been pregnant showed lower hair measurements than nulliparous. No significant difference was seen after application of hair dye except for few values. In both genders, parameters of hair were affected by age. Smoking had a negative influence on hair parameters

**Conclusion:**

Hair features and parameters observed in our population are different from those reported by other populations. Smoking affects hair thickness and density. Repeated pregnancies also causes decline in hair parameters. Dyed hair has greater thickness mostly due to the protective effect of hair conditioners.
Assessment of the impact of a dermoscopy training associated to an artificial intelligence on general practitioners residents

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Introduction & Objectives: Confronted with issues regarding the medical demography and the constant tension on the primary care system with a significant lack of health professionals throughout the territory, general practitioners are increasingly challenged by the need to carry out skin cancer screening and prevention themselves. However, even with dermoscopy as the lynchpin of skin cancer screening, many general practitioners are not trained in how to use dermoscopy in primary care. We therefore wished to evaluate the impact on the diagnostic accuracy after two training sessions, the first one using the dermoscopy two-step algorithm and the second using the two-step algorithm associated with the use of an artificial intelligence on general practitioners residents.

Materials & Methods: A before-and-after interventional study was conducted to assess the impact of the two training procedures. General practitioner residents from two universities were invited to participate in our study by completing three online tests before and after each training. Then, a further test was carried out at a one-month interval from the date of the participant’s last training session. Each online test was composed of 51 cases: assessing the diagnostic accuracy, the determination of the nature of the lesion, the ability to offer a therapeutic strategy, and the level of confidence for each case.

Results: Forty-one general practitioner residents completed all four tests. We found a significant improvement in their mean score for diagnostic accuracy after each training procedure. The 1st test took place before any training had taken place and showed a mean score of -4.71 out of 51; this compared to 6.72 out of 51 in the 2nd test, which was carried out after the first training procedure; and 25.6 out of 51 for the 3rd test, which took place after the second training session. These differences were each statistically significant (paired Wilcoxon: p-value < 0.001). The results of the 4th test allowed us to demonstrate a significantly persistent improvement on the average score at one month after the last training session, and that the score was particularly improved with the use of the artificial intelligence analysis (mean score = 27.18 out of 51). This study also suggests that dermoscopy training improves the ability of general practitioner residents to determine the nature of the lesion, to propose a therapeutic strategy and significantly increases their levels of confidence.

Conclusion: These results confirmed that dermoscopy training combined with an artificial intelligence considerably improves the diagnostic accuracy, the ability to determine the nature of the lesion, and the management of pigmented lesions. Encouraging universities to propose that general practitioner residents undergo training in dermoscopy could significantly improve skin cancer screening and therefore create an overall improvement in skin cancer survival rates.
Dermoscopy of primary cutaneous lymphomas: A prospective study of thirty four cases

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Introduction & Objectives:
Dermoscopy is a contributing tool in the diagnosis of several dermatological diseases. Its contribution in the diagnosis of primary cutaneous lymphomas (PCL) has been demonstrated in few studies. The aim of this work is to describe the dermoscopic features observed in PCL.

Material and methods:
This is a prospective study, performed between January 2021 and April 2022, including cases of PCL confirmed on skin biopsy and immunohistochemistry hospitalized in the dermatology department of the Ibn Rochd University Hospital or followed up in consultation.

Results:
34 patients were included in this study, including 31 T-type PCL and 3 B-type PCL.

Among the 31 TPCL patients, 25 had classic mycosis fungoides (MF) (79%), 2 poikilodermal MF, 4 pilotropic MF and 2 transformed MF. The vascular pattern was represented by dot-like vessels in 45% of patients, short linear sperm-like vessels (37.5%) and glomerular vessels (16.6%); polymorphic vascularization was noted in 4 patients. Orange-yellow areas were seen in all patients with classic MF; structureless areas were noted in 29% of patients. In poikilodermal MF, polygonal structures with pigmented septa and whitish storiform striae were noted. Ulcerations were found in the 2 cases of transformed MF and dilated follicular orifices in the 2 cases of pilotropic MF.

In patients with B-PCL, we identified a salmon-pink background, arborescent vessels, scales, and white circles in all patients; polymorphic vascularization with dot-like vessels was observed in 1 patient.

Conclusion
In our study, orange-yellow areas and linear and dot-like vessels were strongly characteristic of classic MF, pigmented septa and whitish streaks characteristic of poikilodermal MF, and dilated follicular orifices characteristic of pilotrope MF.

The identification of dermoscopic features could be very useful in clinical practice for the early diagnosis and management of PCL. For this, further studies are needed.
Abstract N°: 4646

**Dermoscopy of cutaneous metastases of melanoma**

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**Introduction & Objectives:**

Cutaneous metastases of Melanoma (CMM) are relatively common in patients with melanoma. The aim of this study is to describe the different dermoscopic structures of CMM and to seek their association with the type of metastasis.

**Materials & Methods:**

A retro-prospective descriptive and analytical evaluation of dermoscopic images of CMM taken from patients followed for histologically confirmed cutaneous melanoma at the metastatic stage was performed. CMM were classified as satellite metastases, in transit lesions and distant lesions.

We categorized these dermoscopic images into three groups: patterns, focal structures and vascular structures.

**Results:**

We collected 272 dermoscopic images of skin metastases in 24 patients with CMM (15 men (62%) and 9 women (38%)), the mean age was 60.21 years.

Skin metastases from melanoma were classified as satellite metastases, with 105 lesions in 18 patients (75%), 137 lesions in transit in 19 patients (79%) and 30 distant lesions in 7 patients (29%).

The pigmented brown pattern and the pink pattern were the most prominent (47.1%) and (43%) . The most frequent focal dermoscopic structures were peri-lesional erythema (68.8%), followed by whitish areas without structures (63.2%) and a pigmented brown halo (38%). The most common vascular structures were irregular linear vessels (89.3%), polymorphic (70.2%) and milky red areas (55.1%).

The most common dermoscopic patterns found in satellite CMM: pigmented brown (58.7%) and mixed (42.3%), the pigmented brown pattern was most common in transit CMM (52.8%), followed mixed and homogeneous blue (42.5%), in contrast to distant CMM, the pink pattern and homogeneous blue (77.4% and 74%) were the most dominant.

The most common focal structures in satellite CMM were: The pigmented brown halo and whitish areas without structure. Peri-lesional erythema, unstructured white areas and pupae were dominant in transit CMM. Peri-lesional erythema and central erosion were the most common in distant CMM.

Linear irregular vessels and milky red areas were more prominent in transient and distant CMM whereas linear irregular and polymorphic vessels were more seen in distant CMM.

**Conclusion:**
The occurrence of CMM may represent the first sign of melanoma recurrence, so it would be very important for the specialist to know the specificity of their different dermoscopic patterns.

In our study, it was found that homogeneous blue and pigmented patterns were significantly the most frequent, and that white area without structure, perilesional erythema, and polymorphic vascularization were significantly associated with CMM of all types combined.

Our results confirm the importance of focal structures in the recognition of CMM, with a significant difference between the different types of CMM; pigmented brown halo, brown dots and globules were significantly more frequent in satellite CMM, while rainbow and white areas without structures were significantly correlated in transit CMM.

Dermoscopy may be helpful in recognizing CMM, facilitating early excision and histopathological confirmation.
Ecrine poroma: clinical and dermoscopic characteristics through a case report

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Introdution & Objectives:

The eccrine poroma is a rare benign adnexal tumor of the terminal duct of the eccrine sweat gland. Because of its clinical variability, it is generally difficult to diagnose, hence the interest using dermoscopy, which remains a non-invasive and immediate method.

We report the case of a 65-year-old female with an eccrine poroma, while studying particularly its clinical and dermoscopic characteristics.

Observation:

A 65-year-old female, without any particular pathological history, who has been presenting for 6 months with a painless, slightly pruritic papule on the posterolateral aspect of the right foot.

The dermatological examination found a rounded papule, pinkish color, and well limited measuring 1cm.

The dermoscopy found irregular linear vessels, glomerular vessels and some hairpin vessels, all surrounded by a whitish halo.

In front of this clinical aspect we performed an excisional biopsy which revealed a large endophytic epidermal proliferation made of pomoid cells.

This histological aspect was suggestive of a classic form of poroma ecrine. The management was surgical with complete excision.

We noticed a good outcome after 6 months.

Discussion:

The term poroma ecrine was originally described by Goldman and Pinkus in 1956 to refer to a benign tumor of the sweat gland consisting of epithelial cells. It represents 10% of all sweat gland tumors. The pathogenesis remains unknown, although some authors suggest association with scarring, trauma and radiation.

There is no predilection by race or gender. It tends to be diagnosed in patients between 40 and 70 years of age. The most common location is the sole of the foot.

Clinically, it is usually a solitary papular or nodular tumor that is slow growing and may be skin-colored, pink, red, white or even blue. Its surface may be smooth or warty, exophytic, sometimes ulcerated or hyperkeratotic. Pigmented forms of EP constitute 17% of cases.

This rare tumor can present polymorphic characteristics that can lead to confusion with other malignant tumors such as squamous cell carcinoma or achromatic melanoma, that’s why dermoscopy is so useful.

The latter shows polymorphous vascular structures, glomerular, hairpin or linear vessels. Irregular vessels, surrounded by a white to pink halo, can also be observed.
Histologically, the eccrine poroma presents as a well-limited tumor growing from the epidermis, composed of regular cells with evidence of sweat differentiation, showing no atypia or mitosis.

The treatment is based on shaving or electrosurgical destruction for superficial lesions and excision for deeper lesions as our patient’s case.

In addition, topical treatments have also been shown to be effective on superficial poromas such as 1% atropine.

**Conclusion:**

Through this case, we studied the clinical and dermoscopic features of this rare tumor as well as its histological characteristics.
Dermoscopy combined with Wood’s lamp for the diagnosis of pityrosporotic folliculitis

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Introduction & Objectives:
Pityrosporum folliculitis (PF) was initially described in 1969, commonly affecting young adults and caused by fungus of the genus Malassezia spp. The use of Wood’s lamp (WL) combined with dermatoscopy is a recent technique with few reports in the literature and, due to its practicality, it is becoming increasingly useful in the diagnostic elucidation of various dermatoses.

Materials & Methods:
We present a case of a 17-year-old adolescent with a history of disseminated erythematous follicular papules on the upper chest, back, and upper limbs for the past 2 years, accompanied by mild itching and intermittent periods of exacerbation. Upon examination, bright white fluorescence was observed in the affected follicles using dermatoscopy with WL (DLS dermoscope, Dermlite®), and orange-red fluorescence associated with the presence of Cutibacterium acnes was noticed in the perilesional region. A biopsy of a follicular papule confirmed the diagnosis of PF. After treatment with fluconazole 150 mg/week for six weeks, the patient returned with complete resolution of the lesions.

Results:
PF is a cutaneous condition secondary to infection of the hair follicle by fungi of the genus Malassezia spp., which are unicellular eukaryotic organisms, with Malassezia globosa being the most common species. This fungus has enzymes, such as lipases and phospholipases, capable of hydrolyzing triglycerides into fatty acids, thereby promoting follicular occlusion. PF has a universal distribution, predominantly affects young adults, and is associated with antibiotic therapy, diabetes mellitus, corticosteroid use, and immunosuppressants. The lesions are erythematous follicular papules and pustules, usually in a monomorphic pattern, present on the trunk, shoulders, upper limbs, face, and neck region, often associated with moderate to severe pruritus. The diagnosis involves clinical and microbiological findings obtained through scraping the periphery of a scaly lesion using 10% potassium hydroxide (short, curved, and wide hyphae with yeast-like elements (blastospores) resembling “spaghetti and meatballs” appearance), with occasional need for histopathological examination for confirmation. After staining with periodic acid-Schiff or methenamine silver, a dilated follicle due to suppurative inflammation with some small yeast forms will be evident.

With the advancement of new technologies, dermatoscopy combined with WL has become an effective tool in the investigation of such cases. WL is a century-old technique based on the principle of skin fluorescence when illuminated with a wavelength between 340-400 nm. In the case of the pathology in question, the lesions present with a bright white follicular border and exhibit various vascular morphologies, including dots, linear or tortuous vessels, erythema, and perifollicular scaling. In some cases, hypopigmentation of the proximal hair shaft can also be observed.

Regarding treatment, topical agents with fungistatic and fungicidal properties may be recommended as first-line
therapy, although extensive or recurrent cases may require systemic treatment, as in the present case.

**Conclusion:**

We emphasize the importance of dermoscopy combined with WL in the diagnostic elucidation of this condition and encourage further scientific publications utilizing this technique due to its practicality and potential for indicating the etiology of various common dermatoses in clinical dermatology practice.
Abstract N°: 4991

Clinico-epidemiological study of Pigmentary Disorders in Children with Dermatoscopic evaluation in tertiary care hospital

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Introduction & Objectives: Pigmentary disorders in children are a great concern for the parents. They cause anxiety amongst the parents due to social stigma attached to these conditions. It is difficult to diagnose pigmentary disorders only by clinical examination and skin biopsy for histopathological examination is not feasible for every patient. Hence dermatoscopy acts as a non-invasive tool and bridge between clinical and histopathological findings. This study was conducted to assess the magnitude of various pigmentary disorders in children and to correlate dermoscopic findings of different pigmentary disorders in children with clinical diagnosis of pigmentary disorders which are difficult to differentiate based on clinical findings.

Materials & Methods: A hospital based observational, cross-sectional study was conducted over period of 2 years in the dermatology outpatient department. Patients less than 18 years of age presenting with any form of pigmentary disorders were recruited for dermatoscopy evaluation after taking an informed consent from the parents. A detailed history with respect to onset and duration of symptoms, any treatment received, and pre-existing medical conditions were recorded on a predesigned proforma. Dermatoscopy examination was carried out using Derm Lite DL4 dermoscope using both polarized and non-polarized modes.

Results: 100 cases were taken in the study. Majority of female preponderance was seen. The most common diagnosis amongst hypopigmented disorders were 20 cases of P. alba. The dermoscopy findings were ill-defined margins with fine scaling. Vitiligo was the next common finding comprising 15 cases the most common dermoscopic features present were diffuse white glow. The other dermoscopic findings observed were leukotrichia, trichrome pattern and poliosis. Dermoscopy of 6 cases of P. versicolor, hypopigmented variant showed non-uniform pigmentation, inconspicuous ridges and furrows and perifollicular scaling.

Dermoscopy of 4 cases of Lichen Striatus showed white scar line. A case of Genital Lichen sclerosus showed linear arborizing blood vessels.

Most common hyperpigmented disorders observed were 20 cases of Congenital melanocytic nevus. On dermoscopy most common pattern was the globular pattern, followed by reticulate pattern and homogenous diffuse pigmentation. The next hyperpigmented disorder observed included 16 cases of Acanthosis nigricans in which dermoscopy showed linear crista cutis and sulci cutis with presence of brown and black dots and globules.

15 cases of Café au lait macules were observed and the most common dermoscopic finding was thickening of pigmentary network in form of arcuate line, 2 cases showed snail track pattern on dermoscopy. The dermoscopic finding in a case of Nevus of Ota showed bluish-grey blotches and globules and few dark brown areas. Dermoscopy of Nevus spilus showed islands ranging from brown to gray and black areas with white dots. A case of Epidermal verruciform nevus showed cerebriform structure with thick adherent scales on dermoscopy.

Conclusion: Dermoscopy assists in diagnosing various pigmentary disorders with advanced accuracy especially to differentiate cases of vitiligo from other hypopigmented and depigmented disorders which leads to increased anxiety amongst parents. So dermoscopy has become an essential and popular choice for diagnosis amongst dermatologists.
Abstract N°: 5028

Dermoscopy of Eruptive Syringoma

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Introduction & Objectives:

Syringoma is a benign adnexal tumor that originates from the intraepidermal part of the eccrine sweat gland. Eruptive syringoma is a rare variant of syringoma that affects children, and it is commonly confused with other papular eruptions. Dermoscopy can be a useful tool in such cases. We present a case of eruptive syringomas located on the neck of a child, and we describe the dermoscopic finding for this rare entity.

Results:

An otherwise healthy 12-year-old boy presented with multiple asymptomatic papules on the neck that had been evolving for 6 years. On examination, there were multiple bilateral, flesh-colored angulated papules of 2-3 mm in diameter with a flat surface located on the neck. There were no similar cases in the family. The patient reported occasional pruritus with an increase in the volume of these papules with effort and hot baths. Dermoscopy showed a light brown background with multiple tiny white dots; some discrete fine reticulate brown lines were observed in some papules. Histological examination of a papule revealed multiple eccrine ducts and solid nests of epithelial proliferation within a fibrous stroma in the dermis. Larger ducts were dilated and filled with secretion, while smaller ones showed comma-shaped extensions in a “tadpole pattern” which are typical histopathological characteristics of syringoma.

Conclusion:

Eruptive syringoma is a rare variant of syringoma, first described in 1887 by Jaquet and Darier. Eruptive syringoma occurs frequently around puberty and manifests with many flat, angulated papules that appear in a short period of time. ES are typically located on the face, neck, thorax, and abdomen.

Dermoscopy is a practical tool to differentiate ES from other clinically similar entities. The dermoscopy of ES revealed an image of homogeneous brownish areas co-existing with multifocal hypopigmented areas. A delicate, incomplete brown pigment network was present in some papules. It is hypothesized that the fibrotic stroma in syringoma is the cause of epidermal thickening and basal melanosis, as often shown in dermatofibroma. Multifocal hypopigmented areas, also called “whitish dots,” correspond to the large opening of the eccrine glands. This latter dermoscopic feature seems to be characteristic of syringomas. Dermoscopic features like white reticulate lines and dotted vessels on a pale background specific to lichen planus and flat warts, respectively, are absent. Thus, dermoscopy helps to rule out other differential diagnoses of ES.

The definite diagnosis of ES is properly made on histopathological examination. However, the dermoscopic examination allows the clinician to reassure the patient of the benign nature of the condition.
Abstract N°: 5035

Dermoscopic characteristics of cutaneous leishmaniasis

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Introduction & Objectives:

Cutaneous leishmaniasis is a parasitic disease, due to the infestation of the phagocyte by a flagellated protozoan: leishmania, it is transmitted following to the bite of a small hematophagous. it affects both adults and children and constitutes a real public health problem in certain countries such as Morocco. The objective of our work is to study the dermoscopic particularities of cutaneous leishmaniasis in our region.

Materials & Methods:

This is a descriptive cross-sectional study including 14 patients with 20 lesions, who consulted at the dermatology department at the university hospital center Souss-Massa in Agadir in a period from December 2020 to April 2023.

Results:

A total of 14 patients with 20 lesions were included. The male/female sex ratio was 1/3. The average age was 19 years old. 10 of the patients were children. 65% of the lesions were located on the face. 38.5% of these lesions were on the forehead and 30.8% on the cheek. For the rest of the lesions, 25% were located in the upper limbs and 10% in the lower limbs. 85% of patients came from rural areas. All lesions were chronic with an evolution period ranging from 4 months to 2 years. The average size was 1.8 cm. 60% of the lesions were plaques, 20% nodules and 20% papules.

dermoscopic features founded were: Follicular hyperkeratosis in 25% of cases. The ulceration was present in 40% of cases. Yellowish tears were present in 4 lesions (20%). The starburst aspect was present in 40% of lesions. The most common vascular structures were linear vessels (80%), dot vessels in 60% of lesions, hairpin vessels in 40% of lesions, then arborescent vessels in 2 patients. The rest of the dermoscopic structures were constituted by: the orange-yellow aspect in 70% of the patients, white circles were present in 5% of the lesions.

Yellowish crusts in 9 lesions and hemorrhagic crusts in 6 lesions, chrysalid in 15%, scales in 55% and rainbow appearance in 2 lesions. **

Conclusion:

Cutaneous leishmaniasis is a frequent pathology in our context. Dermoscopic features would help in the early diagnosis of cutaneous leishmaniasis and therapeutic follow-up especially in endemic areas.
Abstract N°: 5107

Clinical and dermoscopic characteristics of white fibrosis papulosis of the neck: a case report

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Introduction:

White fibrous papulosis of the neck (WFPN) is a rare entity. The first case reported dates back to 1983 in Japan and clinically presents as asymptomatic, rare, pruritic white, ivory, or yellow papules. Rare observations in the literature have focused on the interest in dermoscopy. We report a new case of clinical and dermoscopic WFPN.

Observation:

A 67-year-old woman consulted our service for asymptomatic lesions of the neck; the dermoscopic examination objectified whitish-yellow papules on the posterior and lateral faces of the neck. Dermoscopy revealed white or yellow, homogeneous, circumscribed areas without follicular involvement. The diagnosis of WFPN was confirmed histologically. Since the lesions are asymptomatic and do not cause aesthetic problems, the patient was not given any treatment.

Discussion:

White fibrous papulosis of the neck (WFPN) is a rare entity that was first described by Shimizu et al. in 1985 in Japan. Clinically, it presents as asymptomatic, rarely pruritic white, ivory, or yellow papules with a diameter of 2–3 mm. These papulose eruptions are firm, non-follicular, and have a smooth surface. Most often, the sides and back of the neck are affected in elderly people, but lesions may also spread across the upper part of the trunk.

Rare observations in the literature have focused on the interest of dermoscopy in WFPN. Dermoscopic signs are clearly circumscribed, homogeneous white areas, including dotted or short, thin vessels, without follicular involvement. Peripheral pigmentation can be seen but fails to form a pigment network.

WFPN is a rare entity, with a characteristic clinical picture, few reported dermoscopic futures and unknown pathogenesis. There are few cases reported to date, so full documentation and publication are of paramount importance.

Conclusion:

WFPN is a rare entity with a characteristic clinical picture, few reported dermoscopic futures, and an unknown pathogenesis. There have been few cases reported to date, so full documentation and publication are of paramount importance.
Abstract N°: 5179

Full-body skin examination in screening for cutaneous malignancy: A focus on concealed sites and the practices of international dermatologists

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Introduction & Objectives:

Full-body skin examination (FSE) is fundamental to the diagnosis of cutaneous malignancy but does not always include concealed site examination (CSE). These include the scalp, breasts in women, oral mucosa and anogenitalia. Our study aims to determine the approach of international dermatologists to CSE during FSE and examine influencing factors, barriers and attitudes towards CSE.

Materials & Methods:

Members of the International Dermoscopy Society were surveyed using an online twelve-question survey disseminated via email in 2021. Primary outcomes were clinician-reported frequency, practice and attitudes regarding the inclusion of concealed sites in the FSE. Descriptive statistics regarding responses to each question were extracted from Google Forms.

Results:

Among 1249 unique clicks to the emailed survey link, there were 706 completed responses (completion rate 56.5%). This cohort of dermatologists was predominantly female (64.4%) and aged 46 years or older (53.2%), with 66.7% reporting that FSE comprised over 25% of their total patient encounters. Among respondents, 54.0% reported always examining the breasts, while 52.8%, 18.8% and 11.8% always examined the scalp, oral and anogenital mucosa, respectively. Overall, the majority of respondents affirmed that examination of concealed sites fell within the scope of practice for dermatologists (74.4%).

The most frequent reason for examining concealed sites was patient concern (32.6-46.1% by site), whilst common reasons to justify not routinely examining concealed sites included low incidence of pathology in these anatomical regions (32.6%) and fear of allegations of sexual misconduct (26.3%). Most dermatologists agreed that examination of the breasts in women constituted ‘best practice’ (61.1%). However, the majority of respondents also expressed concerns regarding the possibility of missing cutaneous malignancies arising at concealed sites due to omission in FSE (90.0%), and the resultant fear of allegations of medical negligence (51.0%).

Conclusion:

There is considerable variation in the practices of international dermatologists regarding concealed site examination as part of routine FSE. Dermatologists’ concerns of missing cutaneous malignancy, possible medicolegal ramifications, and inconsistencies in approaches toward concealed site examination dictate the need for consensus guidelines to instruct best practice. This is necessary to define the responsibilities of clinicians and
inform patient expectations of care to avoid medicolegal repercussions arising from the absence of a consensus approach.
Abstract N°: 5201

**Dermoscopic perspective of Pityriasis Versicolor in a Single Centre Cross-Sectional Study**

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**Introduction & Objectives:** Pityriasis versicolor is a common superficial fungal infection which is usually easily diagnosed with Woods lamp examination and 10% potassium hydroxide mount. However, these modalities have varying sensitivity and specificity. This study aimed to ascertain dermoscopic features lesionally as well as perilesionally using this non-invasive diagnostic tool.

**Materials & Methods:** Consecutive patients with pityriasis versicolor underwent dermoscopic examination of lesions and 2cm around lesions noting lesional and perilesional features in this cross-sectional study. Semi-objective grading of pigmentation, scaling and vascularity was done. Association between parameters was determined using heat maps and violin plots with Kolmogorov-Smirnov test. Lesional analysis was performed since lesions at different sides showed disparate features.

**Results:** A total of 353 lesions from 233 patients (Males=150/233; 64.38% and females=84/234; 36.05%) were studied. On lesional dermoscopy, pigmentary and scaling abnormalities were universal. 258/353 (73.1%) of lesions showed vascular abnormalities. Perilesionally, scaling (223/353; 63.17%) followed by pigmentation (205/353; 58.07%) and vascular changes (111/353; 31.44%) constituted the commonest dermoscopic abnormalities and were noted in 294/353 (83.29%) of lesions overall. Increased disease duration corresponded with increased intensity of perilesional pigmentation alterations (fig 1), perifollicular (P=0.04; fig 2) and follicular scales (P=0.02; fig 3) using Kolmogorov-Smirnov test.

**Conclusion:** Awareness of dermoscopic features could improve diagnostic accuracy in doubtful cases of pityriasis versicolor. Vascular findings are common and may point to and underline inflammatory pathogenesis. Perilesional findings constitute early dermoscopic features of pityriasis versicolor and hint at the need of treatment beyond the confines of lesions. Larger follow-up studies and research into the immunopathogenesis may be of further benefit.

Figure 1: Violin plot depicting increased intensity of perilesional pigmentary perturbation with disease duration. Note the difference in shape in Grade 2 pigmentary alteration corresponding to statistical significance.

Figure 2: Violin plot depicting increased intensity of perilesional perifollicular scales with disease duration. Note
the difference in shape corresponding to statistical significance.

Figure 3: Violin plot depicting increased intensity of perilesional follicular scales with disease duration. Note the difference in shape corresponding to statistical significance.
Introduction & Objectives:

Dermoscopy is a non-invasive tool for in vivo assessment of surface and color changes of the epithelium as well as structures, colors and micro-vascular changes in the superficial dermis, commonly used in differentiating pigmented benign from malignant skin tumors, but also in improving the accuracy of clinical diagnosis of inflammatory cutaneous disorders. Dermoscopic features of cutaneous lichen planus include reticular white streaks on a dull-red background and linear or dotted blood vessels. However, dermoscopy for the evaluation of mucosal lesions is not yet widely utilized and patterns for the diagnosis of oral lichen planus are not yet established.

Materials & Methods:

We present two patients with erosive and plaque-like lichen planus on the oral mucosa, without cutaneous lesions suggestive for the diagnosis. Pathological examination in both cases revealed typical features of oral lichen planus. We used polarized dermoscopy (handheld device with a magnification of 10x, attached to a smartphone with additional 5x magnification for image acquisition and storage) for the visualization of dorsal lingual mucosa and vermilion.

Results:

Dermoscopy of plaque-like and erosive mucosal lichen planus on the dorsum of the tongue was characterized by the presence of white veil-like areas, speckled white and red structures, white parallel streaks on a pink background and linear blood vessels. On the vermilion there was a more discrete aspect of a white veil and polymorphic blood vessels (linear, dotted and hair-pin), or multiple erosions surrounded by white raised structures sketching a striped appearance.

Conclusion:

Oral lichen planus is a T-cell mediated autoimmune disease in which the auto-cytotoxic CD8+ T cells trigger apoptosis of the basal cells of the oral epithelium, affecting 1-3% of the population, with a higher prevalence in women (women to men ratio 1.4:1). Etiology is not yet completely understood, but the antigen unmasking may be triggered by contact allergens in dental restorative materials, drugs, mechanical trauma, viral infection, or other
unidentified agents. There is a risk of malignant transformation of 0.04-1.74% reported in the literature, therefore patients require periodic follow-up at least every 6 months, with repeated biopsies in case of suspicious changes of the lesions. Dermoscopy may be a non-invasive solution for diagnosis, treatment efficacy assessment and early recognition of malignant transformation.
Abstract N°: 5609

Dermoscopy in vitiligo

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Introduction & Objectives:

Vitiligo is the most frequent cause of depigmentation worldwide. It is a clinical diagnosis. Dermoscopy is an adjunct tool to exclude other clinically simulating hypopigmentary conditions and evaluate disease activity. The aim of our study is to investigate the dermoscopic features of vitiligo and their correlation with disease activity.

Materials & Methods:

Prospective study including 18 cases of vitiligo with stable and clinically unstable lesions. Dermoscopy was performed using Dermlite DL4II.

Results:

18 patients with stable, progressive, or repigmenting vitiligo were prospectively studied. 11 women and 7 men. The mean age was 40. The dermoscopic features found in our patients were the presence of whisit areas in all patients. Starburst appearance was noted in 9 patients (50%) and comet tail appearance was seen in only 3 patients (16%). While perifollicular pigmentation, characteristic of active disease, was noted in 12 patients (66%), perifollicular depigmentation was only seen in 3 patients (16%). For dermoscopic features of skin adjacent skin to vitiligo lesions, périlesional hyperpigmentation was seen in 9 patients (50%) and trichrome appearance was noted in 6 patients (33%).

Conclusion:

Dermoscopy is an evolving tool to assess vitiligo activity. The most useful dermoscopic clues are observed in the perifollicular region. Progressive lesions display perifollicular pigmentation while stable/remitting lesions display perifollicular depigmentation.
Abstract N°: 5738

Contribution of dermoscopy in the diagnosis and distinction of the types of porokeratosis

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Introduction & Objectives:

Porokeratosis is an epidermal keratinization disorder. There are multiple clinical variants of porokeratosis and the two most common presentations are: porokeratosis of Mibelli (PKM), and disseminated superficial actinic porokeratosis (DSAP). Histologically, the main characteristic is the coronoid lamella. The dermoscopic features can suggest the diagnosis. Herein, we describe several dermoscopic features of PK through 6 cases, members of three unrelated Tunisian families.

Case presentation:

We investigated 6 patients with PK. Four patients showed autosomal dominant PKM. One patient had PK ptychotropica and one patient had DSAP. Clinically, 3 patients had lesions limited to the genitogluteal region. The most common dermoscopic feature was keratin rim which was present in all our patients. It was very well defined, keratotic with a double free edge in PKM. In contrast, it was discontinuous, less marked and finely scaly in DSAP. The most common vascular structures were dotted or glomerular vessels which were present in 3 patients, and they were more prominent in DSAP. Gray-brown dots and pigmentation along the keratin rim were present in 2 patients. Reddish-brown globules and dots in the central area were seen in 2 patients and pink white scar-like areas were observed in 2 cases. Blood spots were identified in one patient. The keratinaceous follicular plugging and follicular spicules were noted only in one patient.

Discussion:

Dermoscopy is of recognized value in assisting the diagnosis of various forms of PK, mainly, DSAP, PKM and PK ptychotropica by showing a typical single or double, white-yellowish/brownish, peripheral, annular hyperkeratotic structure (“track”) resembling the outlines of a volcanic crater. The dermoscopic findings in the 6 patients analyzed match those already reported in the literature. Interestingly, blood spots along the keratin rim which were present in our patient with DSAP have been recently reported in PKM and DSAP. Although it was more frequently associated with PKM, we did not observe it in our patients with PKM. They may be misinterpreted as ‘multiple small erosions’ in superficial basal cell carcinoma, but these are usually distributed more randomly within the lesion. Moreover, another new dermoscopic feature: the keratotic follicular plugging was observed in one of our patients who had PK ptychotropica. To the best of our knowledge, this dermoscopic aspect has only been reported in 2 cases in the face: one in the centrofacial region and the other in the nose. This could be due to the follicular involvement in porokeratosis which has been rarely described with less than 20 reported cases. In our study, there are distinctive features for DSAP, PKM and follicular PK ptychotropica. We noticed that the keratin border was discontinuous, less marked and finely scaly in DSAP. It was very well defined, keratotic with a double free edge in PKM. Dotted or glomerular vessels were more prominent in DSAP. Keratotic follicular plugs and spikes were characteristically seen in PK ptychotropica with follicular involvement.

Conclusion:

In conclusion, we reported a case series on the dermoscopic features of PK and highlighted the recently described...
dermoscopic features of follicular plug and spicules that correspond to follicular involvement in PK pychotropica and the blood spots observed in PKM and DSAP. We also emphasized the role of dermoscopy in the orientation of the different clinical forms of PK.
Abstract N°: 5769

**Trichoscopy in Menkes disease: A new diagnostic tool: Case report**

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**Introduction & Objectives:**

Menkes disease is a rare genetic disorder affecting copper metabolism, leading to various neurological signs and dysplasia of the hair shaft. We report a case of an infant with psychomotor delay and West syndrome, in whom trichoscopy played a crucial role in the diagnosis.

**Materials & Methods:**

A 17-month-old infant, born to non-consanguineous parents, was being followed up in the pediatric neurology department for West syndrome and cognitive and motor delay. The infant had copper-colored, hypopigmented, uncombable, fine, brittle hair, which was sparse in certain areas, especially at the frontoparietal junction and occiput, with adherent scales. Eyelashes and eyebrows were present, with frontal and eyebrow hypertrichosis. The nails appeared normal. The skin was folded, loose, and pale. Oligodontia and bilateral exophthalmos were noted. Trichoscopy revealed pili torti in a significant number of hair shafts, discolored hairs, anisotrichia, hairs resembling pseudo-monilethrix, and adherent yellowish scales. Trichoscopy did not show trichoschisis or trichoclasis. Under polarized light microscopy, hair shafts were frequently twisted, with abnormal pigmentation and clumps of melanin accumulation in the medulla. This finding strongly suggested Menkes syndrome. Copper and ceruloplasmin levels were measured.

**Results:**

Menkes disease is a rare X-linked recessive genetic disorder characterized by impaired copper metabolism. Affected patients develop progressive muscle hypotonia, psychomotor delay, seizures, and dysplasia of the hair shaft, particularly pili torti. Hair may appear normal at birth but becomes uncombable, thicker, hypopigmented, fine, brittle, and sparse in certain areas. Friction-prone regions tend to be most affected. Polarized light microscopy is recommended, especially to identify pili torti. The examination requires observing a minimum of 50 hairs. Several recent studies have shown that trichoscopy can be valuable in diagnosing Menkes disease by revealing hair shaft abnormalities. Pili torti is the most common anomaly, but trichorrhexis nodosa, monilethrix, trichoclasis, and trichoptilosis may also be observed.

**Conclusion:**

This case report highlights the utility of trichoscopy, a less invasive and less costly technique, in the diagnosis of genodermatoses with hair shaft abnormalities, particularly Menkes syndrome. This could potentially obviate the need for hair examination using polarized light microscopy.
Pink Spitz nevus appearance in dermoscopy and reflectance confocal microscopy in vivo.

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Introduction & Objectives:

Spitz nevi include a wide range of benign melanocytic nevi that occur mainly in children and adolescents. Four dermoscopic patterns are associated with Spitz nevi: starburst, negative network, homogenous and non-specific. Some authors consider lesions with black pigment network and pink nevi as two additional, rare patterns. Reflectance confocal microscopy (RCM) in vivo is a modern tool helpful in establishing the final diagnosis and enables the follow-up of suspicious nevi in children.

Materials & Methods:

A 4 year-old girl presented with a 5 mm, firm, solitary, pink tumor located on the skin of the right chick. The lesion appeared one year after birth and has been clinically and dermoscopically observed since onset.

Results:

The first RCM evaluation was performed at the age of 3 years. A control examination was performed following one year. Clinically, dermoscopically and in RCM, lesion stability was observed for a few months. Dermoscopy showed a reddish background with symmetrically distributed dark pigment macules over the entire nevus. A regular vascular pattern consisted of dotted vessels. Some longitudinal vessels were observed on the border of the nevus. RCM revealed a typical honeycombed pattern of the epidermis. Dermo-epidermal junction showed edged papillae and regular, sparse nests. Only a few roundish, atypical cells within nests were detected.

Conclusion:

Pink Spitz nevus revealed a regular pattern with only a few atypical cells in RCM. Furthermore, the lesion’s appearance remained stable within the observation period.
White rosettes in Cutaneous Leishmaniasis: A novel dermoscopic sign

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Introduction:
The white rosettes are shiny white elements. They consist of four oval-shaped dots with a single center. They look like four-leaf clovers. Despite, being well documented in actinic keratosis and squamous cell carcinoma; they may be observed in several other conditions. Seen with polarized light dermoscopy and they are explained to the optical reflect of polarized light and follicular structures. Here, we describe a case of cutaneous leishmaniasis (CL) showing rosettes under polarized dermoscopy.

Case report:
A 45-year-old female with no medical history presented with multiple ulcero-crusted lesions on her right leg of two months of evolution. Physical examination revealed erythematous papulo-nodules with a central hyperkeratotic crust. (Figure. 1) The diagnosis of CL was highly suspected. Digital polarized dermoscopy (dermlite) showed diffuse erythema with an erythematous background and yellowish crusts. Multiple white rosettes measured up to 0.5 mm were found. (Figure. 2). A dermal smear test was performed, which confirmed the diagnosis of CL. The patient was treated with cryotherapy for 6 weeks with a good outcome.

Discussion:
Several dermoscopic findings have been described in CL. The most common dermoscopic findings, described by Lambrich A et al include diffuse erythema and vessels usually displaying a polymorphic pattern. Other dermoscopic features are hyperkeratosis, central erosion or ulceration, “yellow tears”, and “white starburst-like patterns”. To the best of our knowledge, we report rosettes in CL for the first time in the literature.

Rosettes are seen exclusively with polarized dermoscopy. They vary in size from 0.2 mm to 0.5 mm, and they can be oriented in the same angulations or different angulations. It is postulated that rosettes are formed by narrowing of infundibula or blockage by keratin. Some authors suggest that rosettes correspond to a polarization of fibrotic changes in the dermis, an alternating focal hyperkeratosis and normal corneal layer, and keratin-filled acrosyringeal openings. Earlier it was thought they were specific for actinic keratosis and squamous cell carcinoma, but they are noted in many other conditions such as basal cell carcinoma, dermatofibroma, nevus, squamous cell carcinoma, melanoma, molluscum contagiosum, and lichen planopilaris.

To conclude, white rosettes are possible dermoscopic features of CL. They are exclusively seen under polarized Dermoscopy. This report provides additional evidence that white rosettes are not specific clues to any particular diagnosis.
Abstract N°: 5801

Lichen planus pigmentosus: clinical, dermoscopic and histological features: a case series

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Lichen planus pigmentosus: clinical, dermoscopic and histological features: a case series

Introduction: Lichen planus pigmentosus (LPP) is a rare variant of lichen planus (LP). It represents a chronic, recalcitrant pigmentary disorder. The aim of our study assessed the dermoscopic findings of histologically proven LPP.

Materials and methods: We assessed the dermoscopic findings of histologically proven cases of LPP using a nonpolarized dermoscope (dermlite).

Results: Thirteen patients were included with 61 lesions. The mean age was 57.2 years and a sex ratio (H/F) of 5/8. The skin phototype was: III (2cases), IV (8 cases), and V (3cases). Among the pigment patterns seen in all LPP lesions, peri-follicular pigmentation and diffuse dots/globules were equally observed in 34 lesions. We identified diffuse peppering (25 lesions), linear pigmentation (5 lesions), cobblestone pigmentation (4 lesions) and a reticular pattern (2 lesions). Some LPP lesions demonstrated more than one pigment pattern. We noted blue-gray annular granular structures in 25% of the lesions, a targetoid pattern in one lesion. White dots were observed in 5 lesions. Vascular aspects were assessed in 13 lesions, with focal or diffuse erythema (87%) and telangiectasia (22%). The histopathology showed: melanophages and pigment incontinence in all cases. The epidermal atrophy, perivascular lymphocytic infiltrate, interface dermatitis pattern, basal cell vacuolization, and Civatte bodies were detected in respectively 9, 8, 7, and 5 cases.

Discussion: The polymorphism of dermoscopic findings of LPP confirm the dynamic course of this disease. Our present study shows that the most common dermoscopic pattern of LPP was the peri-follicular pigmentation and the diffuse globule/dots. Only a few data are available in the literature on distinctive dermoscopic characteristics of LPP. In fact, pigment patterns on dermoscopy correspond to dermal melanophages and pigment incontinence. The pigment pattern changed from a ‘diffuse peppering’ pattern to a “reticular” pattern in weeks. The blue-grey pigmentation can be explained by the depth of the pigment, present in the dermis. Besides vascular changes are rarely reported in LPP lesions, they can be explained by the inflammatory process and epidermal atrophy which facilitated their visualization through dermoscopy.
Abstract N°: 5815

Dermoscopy patterns and its histological correlation in active and regressive psoriasis during treatment- A cross sectional observational study

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Introduction:
Psoriasis is a common, chronic inflammatory and proliferative condition of the skin. Dermoscopy of psoriatic lesions is well established and well-studied. The chief characteristics are regularly arranged dotted or glomerular vessels, white scales and a red background.

Objective:
To categorize the dermoscopic changes in the characteristic features of psoriasis lesions during the course of treatment.

Methodology:
A cross sectional observational study. We analyzed and categorized dermoscopic images of 30 lesions from 10 patients clinically and histopathologically diagnosed with psoriasis and on treatment with methotrexate injections. Dermoscopic examination was performed bi-weekly and two dermoscopy experts analyzed the images and studied the dermoscopy features in active, early resolving and late resolving psoriasis. Biopsy was also done and special stains like Melan A and Fontanna Mason were done to corelate the dermoscopy findings.

Results:
Dermoscopic examination of active stage revealed pink white back ground, regular red dots, interlacing white thick network (sieve like) and white scaling. Resolving psoriasis showed various structureless white areas, thin interlacing network, brown dots. Over the treatment period, various background color patterns like Bright pink, Pink-brown and Brown- white were noticed.

Conclusion:
Dermoscopy is a reliable non-invasive tool in differentiating active from regressive psoriasis and can be used to measure the treatment response.
Abstract N°: 5869

Dermoscopy of BAP1-inactivated melanocytic tumours

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Dermoscopy of BAP1-inactivated melanocytic tumours

Introduction & Objectives: BAP1-inactivated melanocytic tumours (BIMTs) are distinct melanocytic lesions characterised by the loss of function of the BAP1 (BRCA1-associated protein-1) gene. Previous terms used for these lesions include Wiesner nevus, BAPoma, nevoid melanoma-like melanocytic proliferations (NEMMPs), BAP1-negative melanocytic tumours, and melanocytic BAP1-mutated atypical intradermal tumours (MBAITs). However, the most recent, fourth edition of the WHO Classification of Skin Tumours published in 2018 classifies these melanocytic tumours as ‘combined naevus, including combined BAP1- inactivated naevus/melanocytoma’. BIMTs have been found in patients with BAP1 tumour predisposition syndrome, an autosomal dominant cancer susceptibility syndrome, which is associated with higher susceptibility to early-onset renal cell carcinoma, mesothelioma, uveal and cutaneous melanoma, as well as other malignancies. BIMTs may also occur sporadically. Although a relatively new entity, these tumours have been increasingly recognised in recent literature. Despite a growing number of studies, a limited number of publications describe the clinical, as well as dermoscopic findings of these distinct lesions. Establishing clinical and dermoscopic criteria is relevant for detection and identification of individuals who may be susceptible for various malignancies.

Materials & Methods: Herein, we describe the clinical and dermoscopic features of multiple BIMTs in male and female members of two Croatian families with BAP1-associated cancer susceptibility syndrome, as well as review of the literature regarding dermoscopic features of BAP1-inactivated melanocytic tumours.

Results: The clinical and dermoscopic characteristics of BIMTs appear to be polymorphic. Dome-shaped pink-to-tan papules which are dermoscopically characterised by homogenous pink or milky red structureless background, sparse linear or arborising vessels, and peripheral irregular brown globules should raise suspicion for BIMT. However, other dermoscopic patterns are possible as well.

Conclusion: Recognising BIMTs in clinical practice is important since these skin tumours may precede the development of various visceral malignancies by several years in patients with germline mutations. These patients and their family members may greatly benefit from cancer screening and individual management strategies.
Abstract N°: 5885

rosettes: a new dermoscopic observation in a case of acquired epidermodysplasia verruciformis: in vivo confocal microscopic and histological correlation

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Introduction & Objectives:
Rosettes are a specific form of shiny white structures seen only with polarized dermoscopy as four-dot points coming together in the center, resembling four-leaf. Although they were thought to be specific for actinic keratosis and squamous cell carcinoma earlier, they have been reported in many other conditions. The exact histological explanation of rosettes is not known, however, they are thought to be due to optical interaction between polarized light and narrowed keratin-filled, or fibrotic adnexal openings. Concentric horny material in follicular and eccrine ducts and perifollicular concentric fibrosis have been suggested as possible histologic findings. Herein, we present a 50-year-old woman with acquired epidermodysplasia verruciformis (EV) with a characteristic clinical and histopathological presentation with its novel dermoscopic and in vivo reflectance confocal microscopy (RCM) findings. To the best of our knowledge, we report RCM findings and rosettes as one of the prominent dermoscopic features of EV for the first time. We aim to discuss the confocal and histopathological examination of the rosettes in the present case.

Materials & Methods:
A 50-year-old woman with a diagnosis of autoimmune hepatitis presented with disseminated reddish-brown multiple polymorphic atypical skin lesions including clinically verruca plana-, verruca vulgaris-, pityriasis versicolor-, and Bowen-like lesions distributed on the face, trunk, and extremities. Medical history revealed that she was diagnosed with autoimmune hepatitis 27 years before, and since then she was under prolonged immunosuppressive treatment including systemic steroids and azathioprine. Both polarized and non polarized dermoscopic, RCM, and histopathological imaging were performed. With the clinical presentation and the histopathological findings, a diagnosis of acquired EV due to iatrogenic immunosuppression was made.

Results:
On non polarized dermoscopy of the lesions clinically suspecting Bowen, well-defined lesions with pinkish-reddish background and multiple papillae with central vessels and occasional hemorrhages were observed, whereas prominent rosettes were observed throughout the lesion on polarized dermoscopy. In addition, RCM and histopathology imagings were correlated with dermoscopy. Histopathological findings were consistent with the diagnosis of EV and excluded Bowen. Rosettes on dermoscopy corresponded to the papillae peripheries on histology. They did not correspond to any follicular or adnexal structures.

Conclusion:
Rosettes may be observed as a prominent dermoscopic feature in some EV lesions. We suggest that rosettes formation may not be due to only follicular or adnexal structures as suggested in the available literature. We suggest that optical interaction between polarized light and dermal and epidermal elements at the periphery of narrow papillary structures may be the causative factor causing rosettes in the present case.
Localized hypopigmentation under the Dermoscope: a diagnostic conundrum

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Introduction & Objectives:

Patients with hypopigmented skin conditions may face cosmetic and psychological difficulties due to the significant difference in appearance between the affected skin and the surrounding normal skin. As a result, they may feel the need to seek evaluation and treatment. On occasion, we have encountered patients with acquired well-demarcated, scattered hypopigmented papules which can suggest multiples diagnosis such as warts, guttate hypomelanosis or an hypopigmented variant of seborrheic keratosis. Seborrheic keratoses are a common type of acquired skin lesion in adults. While they typically appear as brown or black macules or papules, they can rarely presented with a pale, hypopigmented papule with a surface that display a variation in color. A notable clinical feature that sets seborrheic keratoses apart is their “stuck on” appearance. This means that the lesion’s edges are palpable and differ from the surrounding skin, giving the impression that it was affixed to the skin. We report the case of a young adult patient presenting a white papule on the arm that presented a real diagnostic challenge.

Materials & Methods:

We report the case of a 30-year-old patient presenting a hypopigmented seborrheic keratosis. The patient was examined by a DermLite 4 dermoscope and the diagnosis was confirmed by histology.

Results:

We report the case of an otherwise healthy 30-year-old woman presenting a white papule on the right forearm. Clinical examination revealed a slightly infiltrated whitish 3 mm papule suggesting a wart, a hypopigmented seborrheic keratosis or a hyperkeratotic guttate hypomelanosis. There was no contrast intake at wood’s light. Dermoscopy showed a white area with a good demarcation in the periphery, a bitten aspect and some pseudocysts. A biopsy was performed confirming the diagnosis of seborrheic keratosis.

Conclusion:

This case shows the necessity of considering diverse etiologies of acquired hypopigmentation in adult patients, particularly among those with brown or black skin. Recognizing benign variants of hypopigmentation, such as seborrheic keratoses and idiopathic guttate hypomelanosis (IGH), can provide patients with reassurance and prevent inappropriate interventions. Moreover, the development of a concise differential diagnosis for skin hypopigmentation enables primary care physicians to contemplate a spectrum of plausible conditions, encompassing both common benign entities and rarer conditions that require further evaluation.
Abstract N°: 5932

Multiple Aggregated Yellow- White (MAY) Globules as a Helpful Dermoscopic Sign in a Diagnosis of Infundibulocystic Basal Cell Carcinoma: A Case Report

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Introduction & Objectives:
Infundibulocystic basal cell carcinoma is a rare subtype of the most frequent malignant skin tumor in adult population. It has a unique follicular differentiation toward infundibula and follicular germ cells. Histopathologically it is defined by multiple tiny cornifying cysts, some filled with calcium deposits, and lined by infundibular epithelium. Dermoscopy is a helpful tool in identifying different types of skin lesions. Diagnosis of non-pigmented basal cell carcinoma is characterized by arborizing telangiectasia, ulceration and shiny white structures, however in recent years, multiple aggregated yellow-white (MAY) globules were suggested as a new highly specific dermoscopic sign. They are visible with both polarized and nonpolarized light which differentiates them from blotches and strands and from milia-like cysts. Dermoscopy is also useful in defining presurgical excision margins, since MAY globules can extend around peripheral area of the tumor in the clinically healthy skin.

Results:
An 84-year-old male patient with skin phototype II presented to our Department with a slow growing asymptomatic erythematous lesion on his back that he first noticed three years ago. Clinical examination revealed an erythematous plaque with shiny poorly-defined borders the size of 10x3 cm. Dermoscopic examination under polarized and nonpolarized light revealed numerous well-defined yellow-white globules and telangiectasias on the light pink background. Biopsy was performed and histopathology result showed well-circumscribed tumor comprising of aggregations of basaloid keratinocytes with peripheral palisading and multiple horn cysts, some filled with calcifications, lined by follicular infundibular type epithelium surrounded by fibrous stroma. Absence of follicular bulbs and papillae excluded basaloid follicular hamartoma, trichoblastoma and trichoepithelioma. Diagnosis of infundibulocystic basal cell carcinoma was made. Since tumor borders were not clear from the surrounding skin the patient was referred to a plastic surgeon and wide excision with Thiersch transplant was performed. Histopathology again confirmed infundibulocystic basal cell carcinoma with clear margins. Three months follow-up showed no sign of tumor recurrence.

Conclusion:
Diagnosis of infundibulocystic basal cell carcinoma can be both clinically and dermoscopically challenging. Each dermoscopic feature is associated with a specific underlying histopathological correlate. MAY globules seem to be related to the dermal infundibular cysts which can point to the diagnosis of this rare variant of basal cell carcinoma. Awareness of this correlation is important in order to help to delineate tumor borders and correctly define surgical excision margins.
Abstract N°: 5991

The contribution of dermoscopy in the diagnostic orientation of breast Paget’s disease

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Introduction & Objectives:

Paget’s disease corresponds to an intraepidermal adenocarcinoma, involving the nipple and the anal and genital skin. It is often difficult to diagnose clinically because it can mimic contact dermatitis or infection. A misdiagnosis can lead to a delay in treatment and an unfavorable prognosis. In our case, the clinical appearance was not very suggestive and the diagnosis was oriented by dermoscopic examination.

Materials & Methods:

A 48-year-old patient, with no history of breast pathologies in the family and having breast fed. She was consulted at our level for nipple erosion. This lesion had started in the form of a scaly plaque affecting the nipple and the areola of the right breast. Faced with the rapid evolution of the lesion over the last month, the patient consulted us. The clinical examination revealed an erythematous and erosive lesion 6 cm in diameter, painless leading to destruction of the nipple. The remainder of the right breast examination was unremarkable, in particular there were no palpable nodules or nipple discharge. The axillary hollows were free. A dermoscopy of the lesion was performed and showed pinkish-white patches, irregular linear vessels, and brownish hyperpigmented patches with blue-gray bridges that suggested the diagnosis of mammary paget’s disease.

A nipple biopsy was performed. The anatomopathologic study and immunostaining concluded to Paget’s disease of the nipple. The rest of the explorations (breast MRI and mammography) in search of an underlying lesion came back without abnormality. The patient was seen in the senology department for therapeutic care.

Results:

Paget’s disease of the breast is suspected clinically in the presence of a persistent eczematous lesion of the nipple-areolar plaque, which appears oozing, crusty or erosive. It corresponds to a rare form of cancer, of epidermal location, representing, according to the publications, from 0.5 to 5% of all breast cancers.

Very few articles concerning the description of the dermoscopic criteria of the classical form of Paget’s disease are reported in the literature. The presence of irregular linear vessels represents the vascular pattern is classically reported, but which lacks specificity. gray correspond to melanophages in the papillary dermis, while areas of white scarring are characteristic of fibrosis. All these two structures are in areas of regression. All of these criteria are discussed dermoscopically many lesions such as dermatofibroma, scars, basal cell carcinoma (including Pinkus tumor) and pyogenic granuloma.

In our case, the clinical history and the confrontation with the results of the dermoscopy oriented us towards Paget’s disease. The diagnosis was confirmed by the biopsy which found colonization of the epidermis by Paget cells. Radiological explorations were launched in search of an underlying attack returned without abnormality.

Conclusion:

Dermoscopy is a potential diagnostic aid in breast Paget’s disease. It makes it possible to orient or establish the diagnosis in a non-invasive way.
Abstract N°: 5992

Morphological and dermatoscopic analysis of tumoral lesions around the eyes

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Introduction & Objectives:

There is limited data on dermatoscopic features of eyelid margin tumours despite the wide range of differential diagnoses. We aim to define dermatoscopic and histopathological characteristics of the tumours of close to the eyelid margin.

Materials & Methods:

We evaluated prospectively the patients who were referred to the outpatient clinic with periorbital tumours. Demographic features of the patients including age, sex, education level, previous skin cancer, sun protection behaviours, Fitzpatrick skin type, morphological and dermatoscopic features of the lesions were recorded. The clinical and dermatoscopic features of the tumours were recorded via digital dermatoscopy. Subsequently, dermatoscopic images were evaluated by one expert. Only the histopathologically confirmed lesions were included in the study except one which was accepted as benign after a one-year follow-up without any progression.

Results:

A total of 46 patients were included in the study; 24 (52.2%) female, 22 (47.8%) male. Mean age of the patients was 55.74 ± 17.17. 12 (26.1%) patients were smokers. Hypertension, diabetes mellitus, hyperlipidemia, cardiac disease, thyroid disease, previous skin cancer history, non-skin malignancy, organ transplantation, were observed in 16 (34.8%), 6 (13%), 12 (26.1%), 10 (21.7%), 8 (17.4%), 11 (23.9%), 2 (4.3%) and 1 (2.2%) patient, respectively. 5 (10.9%) patients had a family history of skin cancer. Mean tumour diameter was 8.3±6.44 mm, median lesion duration was 15 (min:1, max: 480) months. Recurrence was observed in 17 (37%) patients. 12 (26.1%) patients have undergone previous excision from the lesion location. 11 (23.9%), 27 (58.7%), 4 (8.7%), 3 (6.5%), 1 (2.25) patients’ tumour were localized at the superior eyelid, inferior eyelid, periorbital area, medical canthus and lateral canthus, respectively. Dermatoscopic and morphological features of the lesions were summarized in Table 1. Histopathologically, 18 (39.1%) lesions were malignant and 27 (58.6%) were benign (Table 2.). There was no statistically significant difference was found between benign and malignant lesions in terms of gender (p=0.33), family history of skin cancer (p=0.06), alcohol consumption (p=1), hypertension (p=0.08), hyperlipidemia (p=0.11), heart disease (p=0.42), history of skin cancer (p=0.09), history of extracutaneous cancer (p=0.24), history of organ transplantation (p=0.19), sun protection behaviours and Fitzpatrick skin type. Smoking history was found statistically significant in patients with benign lesions (p=0.01). Diabetes mellitus (p=0.001) and thyroid disease (p=0.002), recurrence (p=0.007) and previous history excision (p=0.003) were found statistically significant among malignant tumours.

Regarding dermatoscopic features; regular surface(p=0.005) was found statistically significant in benign lesions.
while eyelash loss ($p=0.049$), white lines ($p=0.009$) and crust ($p=0.005$) were found statistically significant in malignant lesions.

**Conclusion:**

In the study, we found that diabetes mellitus and thyroid disease were observed more common in patients with malignant lesions. Moreover, recurrence, previous excision, eyelash loss and dermatoscopically detected white lines and crust may be clinical clues for malignancy. Morphologically regular surface may indicate benign lesion characteristics. Our data should be supported by further studies.
Abstract N°: 6124

Demodicidosis diagnosis made easier by dermoscopy

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Introduction & Objectives:

Demodicidosis is a cutaneous infection affecting the face, caused by the Demodex mite. It has multiple clinical presentations; usually pruritic, erythematous, papulopustular lesions. We present a case of facial demodicidosis and describe its management.

Case report:

A healthy 55 years female patient presented with facial pruritic lesions for the last four months.

The clinical examination revealed multiple erythematous papulopustular lesions of and frontal area the nose, cheeks. There was no history of photosensitivity or flushing episodes. There was no history of pets in the house. Routine general physical examination was normal.

Dermoscopic examination found erythematous background, white yellow squales, linear vessels, micropustuls, demodex follicular openings and multiple demodex tails.

Based on clinical and dermoscopic finding the diagnosis of facial rosacea like demodecidosis was suspected.

Therapeutic management consisted oral mitronidazole 500 mg per day for 15 days associated with topical azelaic acid 15%. The follow up examination after a month noted disappearance itchiness and papulopustular lesions, with a light persistence erythema. None of demodex tails were found in dermoscopy.

Discussion:

Demodicidosis is caused by a saprophytic mite that usually resides in the human pilosebaceous unit. The infestation may be clinically inapparent but under favorable circumstances these mites may multiply rapidly, leading to the development of different pathogenic conditions.

Diagnosis of demodicidosis can be hard as its clinical features overlap with rosacea, acne, periorificial dermatitis, folliculitis, facial dermatitis, seborrheic dermatitis, and eczematous dermatitis. It should be considered in the differential diagnosis of recurrent or recalcitrant facial eruptions.

The presence of scales, pruritus, absence of vasomotor flushes and localization beyond the centrofacial zone are in favor of a demodicidosis.

The dermoscopic finding of demodicidosis was characterized by three main features. The first one is demodex “tail” appeared as a gelatinous, whitish creamy thread, 1–3 mm in length and its visualization indicated the presence of the parasite itself protruding from the follicular orifice.

The second major dermoscopic feature is dilated follicular openings containing round, amorphic, grayish/light brown plugs surrounded by an erythematous halo. The third dermoscopic finding, which is nonspecific consist of reticular red dilated blood vessels positioned horizontally.
Various therapeutic regimens have been proposed to treat DD, including acaricides—ivermectin, permethrin, crotamiton, lindano—and adjuvants, such as systemic and topical metronidazole, salicylic acid, gamma benzene hexachloride, sublimed sulfur and benzyl benzoate.

Conclusion:

Demodicosis diagnosis of is always challenging. Dermoscopy, having the advantage of being noninvasive, might be a helpful tool in diagnosis and monitoring.

Materials & Methods:

Results:

Conclusion:
Abstract N°: 6142

**An atypical blue cellular nevus of the buttock with an unusual appearance.**

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**Introduction:**

Atypical blue-cell nevus ACBN is a rare variant of cellular bleu naevus. It is an intermediate form between typical cellular blue nevus and malignant blue nevus; it also presents as a differential diagnosis of deep penetrating blue nevus. We report a new case of pedunculated ACBN of intergluteal location.

**Observation:**

A 37-year-old woman, without any particular pathological history, especially melanoma, consulted for a blackish intergluteal lesion that had evolved for 18 months. The general examination found a patient in good general condition, with on dermatological examination the presence of a pedunculated blue-blackish mass of 3.5 cm long axis, with firm consistency and a non-infiltrated base. Dermoscopy showed a blue-white veil, a chrysalis, and a red background. The lymph nodes were free. An excisional biopsy was performed.

On the basis of clinical and histopathological data, the diagnosis of pedunculated NBCA was retained.

**Discussion:**

The term ACBN has been used to label lesions that have the characteristics of the associated blue-cell nevus of cellular atypia, prominent nucleoli, and a mitotic index of less than 2 digits/mm. The true nature of ACBNs is not fully revealed due to a lack of data in the literature; however, reported cases have suggested their benign nature.

Epidemiologic elements are important to consider in the diagnostic orientation as well as the therapeutic management. NBCA usually affects young women with a sex ratio of 9:6, and the clinical diagnosis is usually made at the age of 20 years, which is consistent with our case.

The localizations of ACBN described in the literature are by order of frequency: the sacral region, which is the case with our patient; the scalp; and finally the limbs. Concerning the tumor size of ACBN, it varies from 1 to 4 cm, according to the authors, but beyond these dimensions, malignancy is suspected.

In our case, histologically, the lesion showed low mitotic activity with the absence of necrosis and no evidence of recurrence or metastasis after 12 months post-surgery.

In contrast to ACBN, malignant blue nevus has more malignant cytologic features, atypical mitoses, and necrosis, as well as high aggressiveness. 80% of patients have metastases at the time of diagnosis, and the five-year mortality rate is high.

Unlike ACBN, deep penetrating nevus occurs in a slightly older population and is more common in the head and neck region. It has some of the characteristics of ACBN, including extension to the papillary dermis and subcutaneous fat as well as to the periphery of blood vessels, nerves, and skin appendages, which is unusual in ACBN but not impossible, as is the case in our patient.

**Conclusion:**
ACBN is a particular and borderline histological form; the pedunculated form is rare, with only two cases cited in the literature. Its evolution and prognosis are difficult to determine, so surgical removal and long-term clinical monitoring are always recommended.
Three-point checklist dermoscopy for melanoma screening: Experience in medical students new to dermatology

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Introduction & Objectives:
Melanoma early detection and optimal referral to the specialist starts in primary care. The medical formation is usually deficient in training general physicians in early detection and risk management for most skin malignancies. Dermoscopy is a valuable tool for evaluating melanocytic lesions, however, it requires considerable medical training for a correct interpretation. A three-point dermoscopy checklist method is used as a screening tool for differentiating malignant from benign melanocytic lesions in non-expert clinicians using dermoscopy. This algorithm suggests targeted evaluation of asymmetry (either colors or structures), the presence of an atypical pigmented network, and the presence of with-blue structures, all suggestive of malignancy.

The aim of this study is to evaluate the impact of a brief medical training on the three-point dermoscopy algorithm in third-year medical students, new to dermatology, and determine the levels of sensitivity and specificity to differentiate malignant and benign melanocytic lesions.

Materials & Methods:
Optional dermoscopic lecture for third-year medical students, new to dermatology, in the context of general medical semiology courses, with posterior case discussion and evaluation of 50 dermoscopy cases, 25 benign and 25 malignant. From the cases evaluated, 21 cases were malignant melanoma, 4 cases were basal cell carcinomas, 23 cases were unspecified benign nevi, and 2 cases were seborrheic keratosis. Students were asked to classify malignant versus benign pathology, based on the three-point dermoscopy algorithm discussed during the lecture. Sensitivity, specificity, and predictive values were calculated according to the student’s responses.

Results:
A total of 3250 recorded responses from 65 students. A total of 154 responses misclassified malignant pathology as benign, while 668 responses misclassified benign pathology as malignant (Table 1).

Table 1: Total responses of malignant and benign conditions as classified using the three point checklist in 65 medical students new to dermatology

<table>
<thead>
<tr>
<th></th>
<th>True malignant lesion</th>
<th>True benign lesion</th>
</tr>
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<tbody>
<tr>
<td>Malignant diagnosis response</td>
<td>1341</td>
<td>668</td>
</tr>
<tr>
<td>Benign diagnosis response</td>
<td>154</td>
<td>1087</td>
</tr>
<tr>
<td>Total Responses</td>
<td>3250</td>
<td></td>
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</tbody>
</table>

The average sensitivity for determining malignant lesions was 89.7% while the average specificity was 61.99%.
Predictive values and global efficiency are reported in Table 2.

**Table 2:** Specificity, sensitivity and predictive values from responses from the students to determine malignant lesions using the three point checklist

<table>
<thead>
<tr>
<th>Malignant pathology determination</th>
<th>Range</th>
</tr>
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<tbody>
<tr>
<td><strong>Sensitivity</strong></td>
<td>89.70%</td>
</tr>
<tr>
<td></td>
<td>73.91-100</td>
</tr>
<tr>
<td><strong>Specificity</strong></td>
<td>61.99%</td>
</tr>
<tr>
<td></td>
<td>37.03-88.88</td>
</tr>
<tr>
<td><strong>Positive predictive value</strong></td>
<td>66.75%</td>
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<tr>
<td></td>
<td>-</td>
</tr>
<tr>
<td><strong>Negative Predictive value</strong></td>
<td>87.59%</td>
</tr>
<tr>
<td></td>
<td>-</td>
</tr>
<tr>
<td><strong>Global efficiency</strong></td>
<td>74.71%</td>
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</table>

**Conclusion:**

When evaluating melanocytic lesions, the focus of primary healthcare and general medical formation should emphasize the correct determination of malignant or benign pathology, rather than making a specific diagnosis. Teaching the three-point dermoscopy algorithm for melanocytic lesions to medical students, new to dermatology, yields satisfactory levels of sensitivity and specificity in differentiating malignant from benign pathology, comparable to general physicians. Considering this type of teaching intervention in medical formation in the introductory courses could be a valuable contribution to general medical training.
Abstract N°: 6344

**Unusual eruptive malignant nodules**

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**Introduction & Objectives:**

Dermoscopy is a safe and valuable diagnostic method, not only for melanocytic skin tumours but also for non-melanocytic pink nodular lesions in particular skin metastases of breast cancer.

**Materials & Methods:**

A 91-year-old woman presented for 3 recent erythematoviolaceous nodules of the scalp, neck and left breast. The nodules appeared around two months before her presentation to the clinic and increased in size progressively. They were asymptomatic, but occasionally itchy.

Her past medical history includes a right breast cancer diagnosed 10 years ago and treated with partial mastectomy, adjuvant radiotherapy and adjuvant chemotherapy with favourable response. The patient has been in complete remission since more than 5 years.

Physical examination was characterised by pinkish to bluish nodules of 2 to 3 cm of size each, tender on palpation and not mobile. Dermoscopy showed an erythematous background with absence of pigment network along with irregular linear vessels and asymmetrical arborising telangiectasia compatible with eruptive basal cell carcinoma. However, based on her medical history, a biopsy was advised – not only to diagnose a possible BCC – but also to rule out a relapse of her old breast cancer that was in remission at the time or a primary cutaneous B-cell lymphoma.

**Results:**

Skin specimens showed infiltrating dermal tumor proliferation that is essentially made up of nests and a few crests with rare glandular outlines. The cells have moderately abundant amphophilic cytoplasm with a round nucleus increased in size and presents mild to moderate cytonuclear atypia. Accompanying stroma is non-inflammatory and sclerotic. The diagnosis of skin metastasis of her breast cancer was confirmed and thus a relapse of her disease.

Skin metastases of breast cancer commonly appear as firm, smooth or ulcerated or crusted, nodules or papules. They can also present as a well demarcated erythema or an oedematous cellulitis plaque on the ipsilateral chest wall and breast. Several dermoscopic features include Pink-orange background, structureless yellow central areas, Whitish bright lines, ovoid nests, polymorphic vessels and linear irregular fissure-like depressions on a pink-orange background.

The atypical location and presentation of the nodules in this patient could mislead the diagnosis. However, even if the patient was free of disease since many years, new eruptive cutaneous lesions should always raise the suspicion of a relapse and prompt investigation in order to better guide the management.

**Conclusion:**
Skin metastases of breast cancer can have various clinical presentations. A new pinkish lesion with arborising or polymorphic vessels pattern in a patient with a history of breast cancer can be mistaken as a basal cell carcinoma. However, it should always be considered as a skin metastasis until proven otherwise.
Abstract N°: 6346

Trichoscopic Features of Eyebrow Trichotillomania

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Introduction & Objectives:

Trichotillomania (TTM) is an impulse disorder in which patients chronically pull out hair resulting in noticeable hair loss. Scalp is the most common site for pulling hair, hence it is also reported in other hair-bearing areas including eyebrows. In this localization, the diagnosis may be difficult to ascertain, as compulsive hair pullers frequently conceal or deny their habit. Besides, eyebrow alopecia may be secondary to numerous causes. Trichoscopy effectively supports differential diagnosis of various eyebrow hair loss diseases. The aim of this study was to describe and characterize dermoscopic features of eyebrow trichotillomania.

Materials & Methods:

We performed a descriptive retro-prospective observational study that included all patients diagnosed with eyebrow trichotillomania, at our dermatology department at University Hospital Center HASSAN II Fez in Morocco over two years from 2020 to 2022. In all trichoscopy images were provided using a digital microscopy system.

Results:

Seven patients were included in the study (female-3, male-4). Mean age of the patients was 22 years. Mean duration of disease was 22 months (minimum 2 months and maximum 72 months).

One patient presented with psychiatric history of obsessive-compulsive disorder.

All patients had non-cicatricial alopecia with a negative hair pulling sign involving eyebrows.

The eyebrow hair loss was exclusive in 4 patients and associated to scalp hair loss in one patient and to eyelash hair loss in two patients.

Most common symptoms were: Pruritis in 4, desquamation in 3 and erythema in all patients.

Common trichoscopics features: irregularly broken hairs in all cases, elbow hairs, black dots and powder hair in 71% patients. Trichoptilosis (split ends) were seen in 43% patients. Colloid hair, tulip hair and v-sign in 28% patients. Flame hair and follicular hemorrhages were seen in 14% each.

Conclusion:

Eyebrow involvement in trichotillomania may create a diagnostic challenging situation in particular when it is exclusive with no other body site involvement and/or if the patient denies the habit of hair pulling. Trichoscopy is a reliable new tool for identifying eyebrow hair loss associated with hair pulling, and it should be included as a standard procedure in diagnosing trichotillomania.
Abstract N°: 6425

dermoscopic features of dermatomyositis facial rash

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Introduction & Objectives:

Dermoscopy is a non-invasive and easy-to-use diagnostic technique. Its role is well established in dermatoncology. Recently, it has gained popularity for the evaluation of inflammatory dermatoses. In the field of connective tissue diseases, dermoscopy has been used mainly for capillaroscopy of nail folds. To date, little is known about dermoscopic features of cutaneous manifestations of dermatomyositis (DM).

Here, we sought to extend the application of dermoscopy in DM patients beyond the simple examination of the nail fold. Therefore, we decided to perform dermoscopy of facial skin lesions in patients with DM.

Materials & Methods:

A total of 8 patients with DM were included in this 1-year prospective study. Facial skin lesions were assessed by dermoscopy.

Results:

Under dermoscopy, all cases presented predominantly vessels on a reddish background. Curved vessels were present in all cases, and they were accompanied by linear (62.5%), linear branching (62.5%) and dotted vessels (37.5%). Some follicular findings were present such as follicular plugs (25%), follicular red dots (25%), perifollicular pigmentation (12.5%) and white perifollicular halo (12.5%). White scales with patchy distribution were a frequent finding (75%). White vellus hair and orange structureless areas were observed in 3 cases (37.5%). Whitish structureless areas, honeycomb pigmentation and grey brown dots were noted in 2 cases (25%).

Conclusion:

The use of dermoscopy could improve the diagnostic accuracy of DM. Histological examination may be useful in differentiating DM from certain similar dermatoses, but it remains insufficient to distinguish it from its main differential diagnosis: cutaneous lupus erythematosus. To date, few studies in the literature have investigated the dermoscopic features of DM. Because of its low incidence, dermoscopic data on DM are mainly combined with those of other connective tissue diseases. The majority of dermoscopic studies on DM have focused on nail folds and scalp. Dermoscopic features of the other sites, such as the face, are rarely described. In the few reports on dermoscopic aspects of facial lesions of DM, the main described signs are polymorphous vessels and white scales on a reddish background. Follicular findings are not frequent. Dermoscopy may assist in the diagnosis of DM. However, further reports are needed to establish conclusive diagnostic features.