

# WORLD CONGRESS FUND

Poster Abstract Book



Abstracts prepared by  
2020 Strauss & Katz World Congress Fund Scholarship Recipients  
selected by the World Congress Fund Review Task Force



**2020 AAD Annual Meeting**  
**Denver, Colorado**  
**March 20–24, 2020**  
COLORADO CONVENTION CENTER

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In an effort to encourage the participation of young dermatologists from developing countries the World Congress Fund Review Task Force of the American Academy of Dermatology awarded 37 attendance scholarships for the 2020 Annual Meeting of the American Academy of Dermatology in Denver, Colorado from March 19 – 24, 2020.

The Strauss and Katz World Congress Fund Scholarship program was established with funds from the 18th World Congress of Dermatology (New York, 1992) and includes:

- Complimentary Annual Meeting registration
- Admission to one ticketed half-day course
- \$1500 - \$2000 in stipends for expenses

To be eligible for this scholarship, applicants are required to be within three years of completion of their dermatology residency training at the time of the meeting. Applicants must be endorsed by their national dermatological society. Selected Poster Abstracts will be displayed electronically at the Annual Meeting.

For more information about the scholarship program, visit <https://www.aad.org/member/career/awards/strauss-katz>

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## ACNE

**Predictive factors for disease severity in patients with hidradenitis suppurativa in Malaysia: a multicenter study**

Loo Chai Har, Hospital Pulau Pinang

## INTRODUCTION

Hidradenitis suppurativa (HS) is a chronic, recurrent, inflammatory disorder of follicular occlusion, resulting in abscesses with potential fistula formation and severe scarring. Our objectives were to identify the risk factors determining the disease severity.

## METHODOLOGY

This is a cross-sectional study carried out from September 2016 to August 2017 at 3 tertiary hospitals in Northern Peninsular Malaysia.

## RESULTS

Sixty-two patients were recruited, 83.9% were male. The mean age was 29.2 with the median age of onset at 18 years old. Based on Hurley staging, 15 (24.2%) were in stage I, while 38(61.3%) and 9 (14.5%) were in stage II and III respectively. Early age of onset (adjusted odds ratio, 0.85; 95%CI,0.76-0.96), involvement of chest (21.5; 1.64-281.75),gluteal regions (8.42; 1.20-59.04) and high-sensitivity C-reactive protein (1.08; 1.00-1.17) are independent predictive factors for more severe disease. Gender, family history, metabolic parameters and inflammatory markers are not significant.

## CONCLUSION

Clinical assessment remains pivotal in predicting the disease severity even without access to laboratory investigation. Early intervention with aggressive management should be considered for patients with chest and gluteal involvement.

## CLINICAL DERMATOLOGY &amp; OTHER CUTANEOUS DISORDERS

**Patterns of skin disease in Botswana**

Karen Itumeleng Mosojane, University of Witwatersrand  
Giovanni Damiani, Rosalynn Conic, Carrie Kovarik,  
Victoria Williams

## INTRODUCTION

Botswana is an African country with the third highest HIV prevalence in the world; however, information on the burden of skin disease is lacking. The present study aims to quantify the patterns of skin diseases in Botswana in order to improve health care planning as well as design preventative measures and educational programs to optimize dermatology care.

## METHODOLOGY

This is a retrospective dermato-epidemiological study which evaluated new and follow up patients referred to the Dermatology Outpatient Department of a tertiary public hospital during a 12 month period, from January to December 2015. Data was extracted from excel patient logs including: age, gender, HIV status, diagnostic biopsy information, final diagnosis, visit details (new or repeat) and treatment.

## RESULTS

A total of 2792 new and follow up patients with a median age of 35 years (SD 19.26) and male to female ratio of 1:1.4 were enrolled. HIV positive patients represented 73.4% of new patients and 37.3% of follow up visits. In HIV positive new patients, the most common clinical diagnoses were eczematous eruptions, viral infections and disorders of pigmentation. The top three biopsy diagnoses were Kaposi sarcoma (37.71%), squamous cell carcinoma in situ (3.81%) and discoid lupus (2.86%). Common therapies delivered included topicals, systemic medications and referral to another department.

## CONCLUSION

The study highlights that majority of new patients seeking dermatology care in Botswana are HIV positive. HIV prevalence in Botswana has impacted dermatologic disease. Kaposi sarcoma being the most frequently biopsied condition and HIV positive patients presenting with a variety of inflammatory and infectious skin diseases. Given the shortage of dermatology specialists in Botswana the present study provides a baseline to train primary care physicians and general practitioners in diagnosing and treating these commonly seen dermatologic conditions so as to alleviate the burden on tertiary hospitals.

## CLINICAL DERMATOLOGY &amp; OTHER CUTANEOUS DISORDERS

**Erythroderma: retrospective study of 61 patients**

Margarita Muñoz de Toro, "F. J. Muñoz" Hospital

## INTRODUCTION

Erythroderma is defined as erythema and diffuse desquamation that compromises more than 90% of the skin surface, with thermoregulation alterations and subacute or chronic evolution. It is most often linked to: previous dermatoses, drugs, cutaneous lymphomas and infections. In approximately 20% of patients the cause is unknown (idiopathic). Objectives: to study the clinical and epidemiological characteristics as well as the follow-up of our population, to assess the prevalence of triggers and the type of medical attention that patients required.

## METHODOLOGY

It is a retrospective, observational and descriptive study. Patients with erythroderma who were treated at the Department of Dermatology of "F.J. Muñoz" (Buenos Aires, Argentina) between June 1, 2014 and May 31, 2019 were included. Those patients without basic complementary exams and outpatients who attended less than 3 consultations were excluded. Age, sex, medical history, time until first consultation, clinical characteristics, etiology, histopathological changes, time of duration and final evolution were assessed. The data was transferred to Microsoft Excel and adjusted for analysis.

## RESULTS

Of the 61 patients 43(70.4%) were males and 18(29.5%) were females. The median age was 50.5(CI 95% 45.9-55.1) and 50.6 years (CI 95% 43.42-57.79) for male and female patients, respectively. 53(86.8%) were inpatients and 8(13.11%) outpatients. The median time of hospitalization was 37.7+/-31.1days (IC95% 29.3-46.1). The etiology was classified in 5 groups: 38(62.2%) previous dermatosis (psoriasis 57.8%), 9(14.7%) drugs, 4(6.5%) neoplasia, 4(6.5%)infections and 6(9.8%)idiopathic. The final evolution was favorable in 44(72.1%) patients, unfavorable in 5(8.1%) and unknown in 12(19.67%) patients.

## CONCLUSION

In our study, erythroderma was more prevalent in men although the average age was similar in both sexes. The majority of the patients needed to be hospitalized and only 8 could be managed with ambulatory care. The most prevalent cause of erythroderma were previous dermatoses, in agreement with international literature. Cases related to drugs, infections, neoplasms had lower prevalence than the international literature reports as well as those of idiopathic origin.

**Clinical presentation, associated factors and microbiological pattern of intertrigo**

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Janaka Akarawita, Primali Jayasekera, Geethika Patabendige

## INTRODUCTION

Intertrigo, or intertriginous dermatitis, is defined as inflammation resulting from moisture trapped in skin folds subjected to friction. It can be infected with fungi and bacteria, as compromised skin facilitate the entry of microorganisms. Intertrigo is a common skin condition and can affect many flexural areas of the body causing impairment of quality of life with significant morbidity.

## METHODOLOGY

This study included a total of 230 patients [males 123(53%) and females 107(47%)], who presented with intertrigo over a year, to a general dermatology clinic. History, physical examination, bacterial and fungal cultures were done to identify the etiologic agent. The skin surface pH assessment was done using HI-99181 portable skin pH meter. pH measurements of unaffected similar flexural area and forearm were taken as controls. In the patients with more than one intertriginous area involvement (n=95), separate bacterial cultures, fungal cultures and pH assessment were done for each area.

## RESULTS

Among them, 166(72%) were from urban areas and majority (27%) were housewives. Seasonal aggravation noted in 54% patients while 46% had recurrence. Intertrigo linked to obesity in 50(22%) and diabetes in 41(18%).Toe webs affected in 146(63%) followed by groins in 94(41%).From bacterial cultures, 45% was S.aureus followed by Diptheroids and Pseudomonas. Fungal cultures showed Candida in 35% followed by Fusarium and Dermatophytes. Affected toe webs showed higher pH(8.13) than control sites, p<0.05 and sites affected by Candida showed higher pH(8.22) than culture negative affected sites, p<0.05.

## CONCLUSION

This study concludes, that intertrigo is concentrated to urban areas and commonly seen in housewives. It has a seasonal aggravation and associated with obesity and diabetes. Toe webs are the most commonly affected site. Staphylococcus aureus and Candida species constituted the majority of cases. Affected toe webs and intertriginous areas affected by Candida species show significant high skin surface pH.

## SCHOLARSHIP RECIPIENTS

### CLINICAL DERMATOLOGY & OTHER CUTANEOUS DISORDERS

#### Cutaneous sarcoidosis: A case report of a missed diagnosis

Onodugo Nkiruka Pauline, University of Nigeria Teaching Hospital Enugu

#### INTRODUCTION

Sarcoidosis is rarely encountered by physicians in Africa. Diagnosis is challenging with the lack of a gold standard test. In clinical practice, diagnosis relies on presence of non caseating granulomas compatible with clinical presentation and exclusion of other granulomatous diseases like leprosy and tuberculosis. Lupus pernio is a specific cutaneous manifestation of sarcoidosis that occurs in about 20-30%. Its recognition is an important clue to the diagnosis of sarcoidosis.

#### METHODOLOGY

This is a case report of cutaneous sarcoidosis that had been previously misdiagnosed and managed as a case of tuberculoid leprosy.

#### RESULTS

A 55 year old Nigerian man presented to the dermatology clinic with rashes on the nose and scalp. Histology of lesions showed non caseating granuloma with sparse lymphocytic infiltrates. Tuberculin test done showed cutaneous anergy. Prior to presentation, he received treatment for leprosy based on these rashes. He took the medications for four months and stopped based on non improvement of symptoms. We diagnosed lupus pernio and commenced on intralesional 5mg/ml of triamcinolone at monthly intervals. He had marked improvement with the above treatment regimen.

#### CONCLUSION

Sarcoidosis is a rare disease in Africans. Lupus pernio however is specific for sarcoidosis. Typical rashes commonly affect the nose. Failure to recognize these lesions can lead to misdiagnosis as other more commonly occurring ailments like Hansen disease. Intact sensations, and non detection of M. leprae makes Hansen's disease unlikely. Presence of non caseating granuloma and cutaneous anergy to tuberculin are suggestive of Sarcoidosis. Patients with Cutaneous sarcoidosis should be followed up to detect any organ involvement early.

### CONNECTIVE TISSUE DISEASES

#### The effect of botulinum toxin B on the pathogenesis of bleomycin-induced scleroderma mice model by possible regulation of oxidative stress

Hritu Baral, Gunma University

#### INTRODUCTION

Over the years, several studies have suggested that oxidative stress plays an important role in the pathogenesis of scleroderma. We previously identified that Botulinum toxin B (BTX-B) injection suppresses the pressure ulcer formation in cutaneous ischemia-reperfusion injury mouse model by regulation of oxidative stress. However, the therapeutic possibility of BTX administration for preventing the development of scleroderma is unclear. Therefore, our objective is to investigate the effect of BTX-B on bleomycin-induced scleroderma mice model and determine the underlying mechanism.

#### METHODOLOGY

BTX-B was subcutaneously injected on the back skin 24 hours before initiating the bleomycin-induced scleroderma mice model. Skin thickness, collagen content, infiltrating inflammatory cells and factors regulating skin sclerosis and oxidative stress were examined. We also evaluated the effect of BTX-B on bleomycin injected OKD48 transgenic mice, which enabled evaluating oxidative stress through bioluminescence detection. Furthermore, we assessed the antifibrotic effect of BTX-B on skin fibroblasts from Scleroderma (SSc) patients, and examined the expression of oxidative stress associated genes.

#### RESULTS

BTX-B injection significantly reduced the dermal thickness, infiltration of SMA+ myofibroblast, CD3+ T-cells and CD68+ macrophages. mRNA levels of IL-6 expression was suppressed in BTX-B treated mice. Oxidative stress signals detected after bleomycin injection in OKD48 mice were significantly decreased by injection of BTX-B. In the in vitro study, BTX-B suppressed the factors regulating fibrosis (COL1A1, ACTA2) and oxidative stress (NOX4, Trx2).

#### CONCLUSION

BTX-B injection might have a therapeutic effect on skin fibrosis by reducing oxidative cellular damage and oxidative stress.

## SCHOLARSHIP RECIPIENTS

### DERMATITIS, CONTACT, ALLERGIC & IRRITANT

#### Paederus Dermatitis involving the Periocular Area: An Observational study from Nepal

Shekhar KC, Dhulikhel Hospital Kathmandu University Hospital

#### INTRODUCTION

Paederus dermatitis involving the periocular area, also known as Nairobi eye is characterized by erythematous vesiculobullous linear patch or plaque with itching, stinging or burning sensation. It commonly occurs during rainy season and near to the agricultural fields. This study aims to evaluate the demographic profile, clinical presentation and ophthalmological manifestations of periocular Paederus dermatitis.

#### METHODOLOGY

This is a cross-sectional, prospective, observational study evaluating patients attending Dermatology or Ophthalmology with features consistent with Paederus dermatitis involving the periocular region for a period of one year. Relevant demographic and clinical data were obtained; clinical photographs were taken and histopathology was performed among selected subjects.

#### RESULTS

A total of 24 patients presented with the clinical diagnosis in the year 2018. Majority were males (M: F-1.4:1) with mean age 29.08±13.38 years. All the patients presented between June to August coinciding with summer and monsoon season with a peak being first week of July (37.5%). Mean time period of presentation was 3.41±2.01 days (range-1 to 7 days). Lesions were unilateral in all cases, predominantly involving the right eye (62%). Burning sensation (83%), itching (50%) were predominant symptoms while lid swelling, erythema, vesicle and pustules were other common periocular findings.

#### CONCLUSION

Periocular Paederus dermatitis is a common presentation during rainy or summer season whose morphological patterns and clinical features will prevent misdiagnosis and allow effective treatment.

#### Decreased expression of retinoid receptors (RAR and RXR) in hand eczema, A case-control study

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Hanan Nada, Dina El Sharkawy, Laila Rashed

#### INTRODUCTION

Hand eczema is the most common occupational skin disease and it causes a profound reduction in the patient's quality of life. Hand eczema runs a chronic relapsing course. Alitretinoin (pan-retinoic receptor agonist) has proven efficacy in the treatment of recalcitrant chronic hand eczema. However, the precise mechanism of its action in hand eczema has not been elucidated yet. The aim of this study was to assess the expression of RAR and RXR in the skin of patients with hand eczema, to elucidate their possible role in the pathogenesis of hand eczema.

#### METHODOLOGY

Thirty patients with hand eczema and thirty age and sex-matched healthy controls were included. Full clinical examination was done and tissue levels of RAR and RXR were measured by quantitative real time-PCR (qRT-PCR).

#### RESULTS

The level of expression RAR and RXR were significantly downregulated in the cases group compared to the controls; (p<0.001), (p<0.001) respectively. In addition, there was a statistically significant correlation between Osnabrück hand severity index (OHSI) and the levels of RAR and RXR expression (p<0.001). A statistically significant correlation was also detected between RAR & erythema (p=0.030), as well as, RXR & skin papules (p=0.030). On the other hand, there was no significant correlation between neither RAR nor RXR and other recorded variables.

#### CONCLUSION

The down-regulated expression in the levels of RAR and RXR proved that they play an important role in the pathogenesis of hand eczema, as well as the disease phenotype and severity. This could explain the efficacy of retinoid agonists in the treatment of hand eczema.

## SCHOLARSHIP RECIPIENTS

### DERMATOPHARMACOLOGY/ COSMECEUTICALS

#### Toxic epidermal necrolysis (TEN) and Stevens-Johnson syndrome (SJS): experience of the dermatology department of Rabat

Myriam Lakhmiri, Ibn Sina Hospital Center in Rabat City  
Asmae Sqalli, Karima Senouci

##### INTRODUCTION

TEN and SJS are rare and life threatening drug-induced skin diseases. Their early recognition and appropriate management is necessary for the survival. The difference between SJS, SJS/TEN overlap, and TEN is defined by the degree of skin detachment: SJS is defined as skin involvement of < 10%, TEN is defined as skin involvement of > 30%, and SJS/TEN overlap as 10-30% skin involvement. In this study of NET/SJS, we aimed to analyse epidemiological, clinical, paraclinical and therapeutic data. Study of prognostic factors was also carried out.

##### METHODOLOGY

This is a retrospective study (2009–2018) including 30 cases of NET/SJS. We used The Wallace Rule of Nines for the skin surface detachment, the SCORTEN for the prognosis and The French Imputability method of causality assessment for the drug causality. Statistical analysis was performed with SPSS and chi-square test.

##### RESULTS

Average age: 38 with a F predominance. There was 18 NET, 8 SJS and 4 SJS/TEN overlap. The most used drugs: anti-epileptic, non-steroidal anti-inflammatory. The delay between the drug intake to first signs: 7.5 days. On average 48% of the body surface area was detached. Oral 100%, ocular 90%, genital 70% mucous membrane involvement was noted. Hepatic 47%, hematologic 40%, pulmonary 30% and renal 23% involvements were noted. Culprit drugs were stopped. All patients received symptomatic treatment. 1 case received corticosteroid for hemophagocytic syndrome. 5 cases died due to infection and respiratory distress.

##### CONCLUSION

Our study is characterized by a younger age, a female predominance and a high mortality rate. The main prognostic factors were skin area detachment, renal failure and respiratory distress. The acute management of SJS/TEN requires a multidisciplinary approach ideally in an intensive care unit. Raising doctors and patient's awareness about the risks associated with the medical prescription and the self-medication are necessary for prevention.

### EDUCATION & COMMUNITY SERVICE

#### Transgender Before and After Sex Reassignment: What Dermatologists Need To Know

Kumudhini Subramanian, Mahatma Gandhi Medical College and Research Institute, Pondicherry

##### INTRODUCTION

Background: Transgenders are individuals who have a gender identity different from their assigned sex. Most of them opt for a transformation of their genital sex at some point in their life. Dermatologists have a great impact on the lives of transgender patients before and after their transition. There are no reports of the outcome of sex reassignment surgeries in these individuals. Aim: We aimed to study the dermatologic, psychosexual, hormonal and aesthetic trends in transgenders before and after sex reassignment surgery (SRS) in a transgender-friendly tertiary care hospital in South India.

##### METHODOLOGY

Materials and methods: All transgenders from different parts of South India who underwent genital SRS in our hospital over a period of six months consented to the study. Dermatology clearance was mandatory and infections were treated before undergoing SRS. Data was collected before SRS and five months after SRS. All sixty transgenders included (100%) were male to females (MtF) with a mean age 27.4. All (100%) preferred the pronoun 'she'.

##### RESULTS

Infectious dermatological diseases (tinea cruris highest) exceeded venereal diseases (condyloma acuminata) before and after SRS, non-infectious dermatological diseases (acne) exceeded. 82%, 56%, 40% indulged in fellatio, peno-anal and receptive anal intercourse before SRS. After SRS, penovaginal sex reported in 47%. The mean Visual Analogue Scale (VAS-to assess sexual satisfaction) was 6.4 before and 8.2 after SRS. The median number of sexual partners before and after SRS were 5 and 1. The mean reduction of testosterone was 39.6%. Laser hair removal was significant after transition ( $p < 0.01$ ).

##### CONCLUSION

Limitation: Some limitations of the study included inadequacy of testosterone analysis in all patients and lack of standardization of aesthetic procedures and hormone replacement. Conclusion: Though the acceptance of transgender community is on the rise, they still face discrimination and inequality in terms of social welfare and healthcare. This study highlights the key role of dermatologists to meet the needs of the transgender community. Transgenders have a relatively increased quality of life following SRS. There are no dermatological studies depicting the effect of SRS on transgenders.

## SCHOLARSHIP RECIPIENTS

### GENODERMATOSES

#### Bloom Syndrome: Case Report

Hadir AbdelGawad Ragab Shakshouk, Faculty of Medicine, Alexandria University

##### INTRODUCTION

Bloom's syndrome is a very rare autosomal recessive disorder, first described in 1954. Over 250 cases have been reported to date. The principal features of the syndrome are short stature, a photosensitive telangiectatic erythema of the face and a marked predisposition to the development of malignant disease, notably acute leukemia. We report a case of a 3 year old female child presented with erythematous facial rash that is exacerbated by sun exposure.

##### METHODOLOGY

Physical examination revealed an alert and active girl with stunted growth. She had narrow, bird like facies with small mandible and pointed nose, high arched palate, and dolichocephalic skull. Dermatologic examination revealed characteristic facies with diffuse erythema extending onto the forehead, nose and malar areas with thin atrophic scarring and telangiectasias. In addition, she had multiple café au lait macules of varying sizes and also multiple hypopigmented macules over the trunk and thighs.

##### RESULTS

Routine hematologic investigations revealed no abnormalities. Immunologic studies including ANA, Anti-Ro and Anti-La were negative excluding systemic lupus. Biochemical profile of blood and urine was negative for porphyrins. Plain X-rays of long bones showed delayed bone age. Basal Growth hormone level was low and remained low after stimulation test. Our patient had all the characteristic features of BS, including stunted growth, lupus like facial erythema, sun sensitivity, and delicate body frame. In addition to café-au lait macules and hypopigmented macules.

##### CONCLUSION

Bloom's syndrome is caused by a mutation in the BLM gene, which encodes the RecQ helicases. These are essential for DNA replication and defects in them can cause problems with repairing damaged DNA strands. DNA damage caused by ultraviolet light cannot always be repaired in these individuals, and they are subsequently at high risk of photosensitivity. The lack of DNA repair is also likely to be the reason for the high incidence of malignancy in these patients as they accumulate mutations. Therefore, those patients need continuous follow up for early detection of malignancy.

#### Cutaneous malignancies profile according to complementation groups in Xeroderma pigmentosum

Gara Soumaya, Charles Nicolle Hospital-Faculty of medicine of Tunis  
Meriem Jones

##### INTRODUCTION

Xeroderma pigmentosum (XP) is a rare autosomal recessive disorder of DNA repair divided into eight complementation groups: XPA to XPG and XPV. XP is characterized by an increased risk of cutaneous malignancies. Data regarding the characteristics of skin cancers according to complementation groups remain scarce. XP is endemic in Tunisia because of a high consanguinity rate. XPA, C and V represent the most frequent complementation groups. This study aimed to determine the characteristics of skin cancers according to the complementation groups in a cohort of Tunisian XP patients.

##### METHODOLOGY

A retrospective cohort study was conducted at the department of dermatology, Charles Nicolle hospital, Tunis from January 2013 to December 2018. Only XP patients with an identified genetic mutation were included. Data concerning cutaneous malignancies were obtained from medical records and submitted to statistical analysis.

##### RESULTS

Fifty-three cases were identified: 45.5% XPC, 30% XPV and 24.5% XPA. A total of 241 lesions were diagnosed. We identified 190 (78.8%) basal cell carcinomas: 98 in XPC, 57 in XPV and 35 in XPA. There were 30 (12.4%) squamous cell carcinomas: 11 in XPC, 16 in XPV and 3 in XPA. There were 21 (8.7%) malignant melanomas: 18 in XPC, 1 in XPV and 2 in XPA. The mean age at the diagnosis of the first tumor was 12.7 years. XPC patients developed 127 tumors (52.6%), XPV 74 tumors (30.7%) and XPA 40 tumors (16.5%). XPC patients had the highest rate of tumors followed by XPV and then XPA ( $P < 0.05$ ).

##### CONCLUSION

Our series, the largest studying skin tumors in XP patients, showed distinct profiles according to complementation groups. Tumors were more frequent in XPC patients. This may be explained by a highly altered DNA reparation process in XPC patients. Although DNA reparation is only partially altered in XPV patients, they developed more tumors than XPA patients arguably because of milder symptoms and photosensitivity leading to a less rigorous photoprotection. Further studies would be needed to better characterize the cutaneous tumors according to the complementations groups in XP patients.

## HAIR &amp; NAIL DISORDERS

**Alopecia patterns in patients with autosomal recessive congenital ichthyosis: a prospective study of six Tunisian patients**

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**INTRODUCTION**

Lamellar ichthyosis (LI) is a non-syndromic ichthyosis belonging to the spectrum of autosomal recessive congenital ichthyosis. Patients with LI usually complain of hair loss secondary to cicatricial alopecia. Hair anomalies in LI were poorly described in the literature and are even overlooked and taken into the account of the main disease. Hence, this study aims to shed more light on the different patterns of alopecia in LI through a prospective study including 6 patients in which we performed dermoscopy of alopecia and molecular investigation.

**METHODOLOGY**

We included 6 patients belonging to 5 unrelated families from Tunisia. We focused on their alopecia pattern and we performed a clinical and dermoscopic study. In 4 patients, after obtaining informed consent, we performed a molecular investigation. Besides, this study was conducted according to the declaration of Helsinki and to the ethical standards of the authors Institutional Review Board. DNA was extracted from peripheral blood using phenol chloroform standard procedures and we performed a hotspot mutation screening of TGM1 exons 5 and 6 using standard molecular biology techniques.

**RESULTS**

The six patients had severe ichthyosis complicated by severe alopecia presenting as fronto-temporal hairline recession in three patients, fronto-temporo-parieto-occipital hairline recession in three patients, multiple patches of cicatricial alopecia in five patients and cicatricial alopecia of the occipital region in two patients. Dermoscopic findings were mainly pili torti, peripilar casts, fractured hair and interfollicular lamellar whitish and brown thick scales. Two of our patients had a founder nonsense mutation pW263X and two patients had a common splice-site mutation c.877-2A>G.

**CONCLUSION**

Little data is available in the literature regarding hair abnormalities in non-syndromic forms of lamellar ichthyosis. Alopecia is severe in patients with severe lamellar ichthyosis. Main hair loss patterns in our study are fronto-temporal hairline recession, fronto-temporo-parieto-occipital hairline recession, and patches of cicatricial alopecia. Traupe et al in 1983 called this particular alopecia, alopecia ichthyotica. More studies are required to shed more light on this particular alopecia which could severely impair the quality of life of these patients.

**Frontal fibrosing alopecia: Experience of the University Hospital of Rabat**

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Karima Senouci, Mariame Meziane

**INTRODUCTION**

Frontal Fibrosing alopecia (FFA) is a particular form of lichen planopilaris. It is a lymphocytic primary cicatricial alopecia, located on the frontal and temporal areas associated or not with an eyebrow alopecia and facial papules. The diagnosis is based on clinical presentation, trichoscopy and histology. The pathogenesis are unknown, it involves autoimmune and hormonal mechanism, genetic susceptibility and environmental factors. The treatment remains non-consensual, it mainly uses topic steroids and oral antiandrogenic drugs, cyclins seem to have an anti-inflammatory effect in the FFA.

**METHODOLOGY**

Objectives: The objective of our study is to determine epidemiological, dermoscopic, histological, therapeutic and evolutionary characteristics of the FFA in Moroccan population. Methodology: This is a prospective descriptive study, involving 25 patients with confirmed FFA and followed up at the department of dermatology in Ibn Sina University Hospital of Rabat/ Morocco, over a period of 4 years from May 2015 to May 2019. Various epidemiological, clinical, paraclinical, therapeutic and progressive parameters were recorded.

**RESULTS**

All cases was women. Median age was 55 years;47.6% in menopause,52.4% in pre-menopause. Metabolic syndrome noted in 23.8%,autoimmune diseases in 36%,mycosis fungoides in 9.5%,similar familial cases in 20%.Use of sun creams on face noted in all cases.47.6% of cases had lichen pigmentogen, 9.5% lichen planopilaris and 4.8% Graham-Little-Lassueur syndrome. Topical steroids with topical minoxidil were prescribed in all patients.52% of cases received doxycycline, 9.5% received retinoids and topical calcineurin inhibitor in 1 case. Evolution was favourable in 87.5% with 6 months of median follow-up.

**CONCLUSION**

FFA could be a multifactorial pathology, the results of our study support the hypothesis of Aldoori et al. suggesting an association between AFF and the use of moisturizing skin care products and sunscreens on the face. Indeed, FFA would be a lichenoid reaction to titanium dioxide nanoparticles present in the hair follicle. Our patients evolved well under cyclins which may suggest the reclassification of this molecule in the treatment of this pathology especially for the African population. Further prospective studies are needed to confirm the various hypotheses mentioned above.

## HAIR &amp; NAIL DISORDERS

**Intra-operative dermoscopy in assessment of Melanonychia and as a guide for Biopsy: A Descriptive study**

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**INTRODUCTION**

Melanonychia can be a manifestation of benign or malignant pathology and often poses a diagnostic challenge on clinical examination. Even with distinguishing dermoscopic features (nail plate), it can be quite difficult to determine the nature of pigmentation since complete assessment of nail bed/matrix is still not possible. Intraoperative dermoscopy (IOD) can serve as a useful tool to appreciate the pattern of pigmentary changes in nail bed/matrix. The aim was to study intraoperative dermoscopic features of nail bed/nail matrix melanonychia and correlate these changes with histopathology.

**METHODOLOGY**

30 consecutive patients with melanonychia were recruited. Inclusion criteria were: melanonychia of sudden onset, progressive nature, irregular width/color/symmetry, Hutchinson sign, solitary nail involvement or associated dystrophy. Pre-operative dermoscopy with non-contact polarizing video-dermatoscope was performed and recorded. During biopsy, after removal of the nail plate, intraoperative dermoscopy was performed over nail-matrix and bed. Images were recorded and analyzed. Dermoscopic changes were correlated with histopathology along with immune-histochemical markers(HMB-45, S-100).

**RESULTS**

Out of 30 patients, 19 were females and 11 males. On histopathology, 3 patients showed features of melanoma of the nail unit, 13 had benign melanocytic proliferation, 8 had nail lichen planus and 6 had fungal melanonychia. IOD revealed fine, parallel and regular lines of pigmentation localized to proximal nail bed and matrix in all patients with benign melanonychia while dark thick bands with irregular borders, dots, globules, streaks and structureless areas in the three patients with melanoma. Fungal melanonychia revealed an unremarkable nail bed and matrix on IOD in all six patients.

**CONCLUSION**

Intraoperative dermoscopy shows peculiar and distinguishing features for benign, fungal and malignant melanonychia and can serve as an auxiliary tool in differentiating between the same. In addition, it can also aid in delineating the most suitable site for biopsy when features are not clearly visible through naked eye. It also has an important role in grossly assessing the extent of involvement in case of malignancy.

## IMMUNODERMATOLOGY &amp; BLISTERING DISORDERS

**Transition from pemphigus vulgaris to pemphigus foliaceus: Case series from a tertiary referral center**

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Rifkiye Küçükö lu

**INTRODUCTION**

Pemphigus vulgaris (PV) and pemphigus foliaceus (PF) are distinct subtypes of pemphigus with different clinical features, histopathology and target antigens. Transition between the subtypes of pemphigus has been reported as rare occurrences in the past 25 years. To the best of our knowledge, only 24 cases switching from PV to PF were described in the literature till date. We aim to describe the clinical and immunoserological features of twelve patients switching from PV to PF.

**METHODOLOGY**

Medical files of patients diagnosed with pemphigus in our clinic between 1987 and 2019 were retrospectively analyzed. From a total of 503 patients diagnosed with pemphigus, 419 patients belonged to PV subtype. Among PV patients, twelve cases exhibited clinical and immunoserological shift from pemphigus vulgaris to pemphigus foliaceus. Demographic, clinical and laboratory characteristics of these patients are described.

**RESULTS**

6 male and 6 female patients (ages 19-62) were included in the study. 11 patients were diagnosed with mucocutaneous PV and one with cutaneous PV. During follow-up, all patients clinically switched from PV to PF after a duration of 4 months to 13 years. At the time of diagnosis; 9 patients had positive anti-desmoglein 1(Dsg1) and anti-desmoglein 3(Dsg3) levels, 1 patient had positive Dsg1 but Dsg3 couldn't be tested and ELISA testing for Dsg was not possible for 2 patients due to unavailability at the time. All patients had positive Dsg1 and negative Dsg3 levels after clinical transition occurred.

**CONCLUSION**

Our case series of 12 patients is the largest series reported to switch from PV to PF till date. Transition was confirmed with characteristic clinical features and serologic profile. Phenotypic change from mucosal to mucocutaneous PV can be explained by epitope spreading. However the reason behind the disappearance of Dsg3 antibodies is unknown. A study showed that extracellular domains of Dsg3 changed leading to reactivity loss in the patients switching from PV to PF with immunoblotting-immunoprecipitation analysis (España, 2014). The mechanism underlying this alteration is yet to be elucidated.

**IgA Pemphigus Manifested As Acrodermatitis Continua Of Hallopeau: A Case Report**

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**INTRODUCTION**

IgA pemphigus is a rare autoimmune blistering disease characterized by acantholysis and tissue-bound and circulating IgA antibodies targeting components in the epidermis. A 41-year-old female with a 17-year history of refractory IgA pemphigus was under remission with acitretin 30mg/day when periungueal pustules, erythema and edema and nail plate loss suddenly developed on the 4th toe. Erythematous scaling plaques with pustules were also observed on the palms and soles. The initial clinical hypothesis was acrodermatitis continua of Hallopeau.

**METHODOLOGY**

A new biopsy revealed acantholysis and intercellular intraepidermal IgA fluorescence without evidence of infection confirming the diagnosis of IgA pemphigus.

**RESULTS**

Complete improvement occurred 3 months after the association of colchicine 1.0 mg/day to acitretin. As the clinical and histopathological features of IgA pemphigus may resemble pustular psoriasis, Sneddon-Wilkinson disease, impetigo, and pemphigus foliaceus, definitive diagnosis mostly relies on IF studies. The concomitant occurrence of psoriasis and IgA pemphigus in the same patient has been seldom reported. Some authors advocate that both belong to the same spectrum of neutrophilic dermatoses.

**CONCLUSION**

Patients with long-standing pustular psoriasis with negative IF studies may later develop detectable serum IgA autoantibodies against cell surface antigens. Our patient had the diagnosis of IgA pemphigus since the beginning of the cutaneous disease with c-DNA transfection test revealing positivity to desmocollin 1. To the best of our knowledge, this is the first report of IgA pemphigus manifested as acrodermatitis continua of Hallopeau.

## IMMUNODERMATOLOGY &amp; BLISTERING DISORDERS

**Pemphigus vegetans with Premalatha sign**

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**INTRODUCTION**

Pemphigus vegetans is a rare clinical variant of pemphigus vulgaris. The pathogenesis is due to a production of immunoglobulin G (IgG) antibodies against intercellular adhesion protein leading to acantholysis. It is clinically classified into 2 variants: Neumann type and Hallopeau type. We reported a 42-year-old male patient presented with intractable stomatitis, papillomatous vegetating lesions over the intertriginous areas and the typical cerebriform tongue or "Premalatha sign" which led to the diagnosis of pemphigus vegetans.

**METHODOLOGY**

A 42-year-old Thai man came with intractable stomatitis and itchy rash on perianal area for 1 year. Initially, the lesions started with few discrete vesicles and bullae on his face, scalp, right arm and itchy rash on perianal area. Later, the lesions had gradually progress into jagged mass. Physical examination revealed large well-defined papillomatous vegetating erythematous plaques on perianal area and few discrete tense bullae on the face, scalp, right arm with approximately involved 3% of BSA. Multiple oral ulcers and erosions with cerebriform tongue (Premalatha sign) were noticed.

**RESULTS**

Blood examination for CBC and LFTs were unremarkable. Serology tests for HIV, HBV and HCV were all non-reactive. Histopathology from lower perianal area displays suprabasal separation of the hyperplastic epidermis with acantholysis and neutrophilic infiltration within the blister. The dermis shows a superficial perivascular infiltration with lymphocytes and neutrophils. Direct immunofluorescence(IF) showed positive IgG and C3 at intercellular space of epidermis. Indirect IF was positive as low titer (1:80) for pemphigus IgG autoantibody. Anti-desmoglein 3 antibody was positive at level of 483.

**CONCLUSION**

Pemphigus vegetans is clinically classified as 2 variants: 1) Neumann type with periorificial papillomatous vegetations and 2) Hallopeau type with pustular lesions evolving into vegetations preferentially affecting the flexural areas and a benign course with few relapses. Cerebriform tongue is a common sign seen in pemphigus vegetans. The pathogenesis is caused by intercellular autoantibodies primarily against desmogleins 1 and 3. The diagnosis of this patient was pemphigus vegetans of Neumann. This patient was treated with prednisolone and azathioprine and gradually improved within 3 months.

## INFECTION - BACTERIAL &amp; PARASITIC

### Leprosy Reactions in northeast Mexico: Epidemiology and Risk Factors for Chronic Erythema Nodosum Leprosum

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#### INTRODUCTION

Leprosy reactions (LR) are acute inflammatory episodes that manifest as skin lesions, neuritis, and systemic symptoms in patients with leprosy infection. LR are classified into two types: reversal reaction (RR) and erythema nodosum leprosum (ENL). Prevalence rates of LR are highly variable and geographic differences complicate accurate estimates. Epidemiological data in countries from Latin America is scarce. ENL plays a significant role in the long-term disability associated with leprosy. Our objective was to describe epidemiology and risk factors for LR in a population from northeast Mexico.

#### METHODOLOGY

A descriptive, retrospective and cross-sectional study was performed using clinical records of patients with leprosy attending the University Hospital "Dr. Jose E. González" in Monterrey, Mexico (134 mi from the US border) from 1980 to 2019. Demographic, laboratory, clinical and treatment data was collected. Incomplete files and patients lost to follow-up were excluded. Chronic ENL (CENL) was defined as ENL lasting 24 weeks or more, during which a patient has required treatment continuously. A multivariate analysis was performed to identify independent risk factors related to a chronic ENL.

#### RESULTS

Of the 469 leprosy cases reviewed, 73 (15.56%) had a LR. The male: female ratio of 4: 3. Age ranged from 14 to 80 years-old with a mean of  $45 \pm 15$ . A total of 65 (89%) were classified as lepromatous leprosy and 8 (11%) as borderline leprosy. The type of LR were ENL in 59 (80.8%) cases, Lucio's phenomenon in 8 (11%) and RR in 6 (8.2%). Of ENL cases, 53 (72.6%) were classified as CENL. High bacterial index was independently related to the presence of chronic ENL ( $p < 0.023$ ). The treatment regimens most associated with remission of ENL were those that included thalidomide in 30 (41.1%) cases.

#### CONCLUSION

In this study more than two-thirds of ENL cases developed a chronic condition. This highlights the need for standardized follow-up visits to detect early signs of reactions. We found that high bacterial index correlates positively with the rates of CENL, further studies are needed to clarify the importance of performing systematical bacilloscopies for prognostic purposes. Treatment with thalidomide was superior above all, however it is severely restricted in many countries. Strengthening knowledge on LR may improve the prevention of permanent nerve damage and the resulting disabilities.

## INFECTION - VIRAL

### Experimental evaluation of a vaccine against *Nocardia brasiliensis* in a BALB/c murine actinomycetoma model

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#### INTRODUCTION

In Mexico, the main cause of mycetoma is *Nocardia brasiliensis*. Subcultures have previously been used to decrease the virulence of human pathogens, and previous reports have demonstrated that after carrying out 200 subcultures of *N. brasiliensis*, a decrease in virulence was observed; however, its effect on an established lesion is not known. The primary goal of this research was to evaluate the effect of *N. brasiliensis* attenuated strains on the development of lesions in an established mycetoma infection in BALB/c murine model.

#### METHODOLOGY

Two hundred female 8- to 12-week-old BALB/c mice were injected with *N. brasiliensis* suspension in the right footpads to establish a mycetoma lesion. To examine whether infection with subcultured *N. brasiliensis* produced an effect on an established lesion, we selected 60 female BALB/c mice with a 2+ lesion and divided them into 3 groups. Two groups were then inoculated at 0, 2 and 4 weeks in the dorsum with *N. brasiliensis* subcultured 200 (P200) and 400 times (P400). The other group served as a control. In all cases, the development of the lesion was scored and measured every week for 12 weeks

#### RESULTS

After 12 weeks of follow-up, mice inoculated with P200 and P400 strains developed smaller lesions compared to those of the control group. When comparing the size of the lesions produced over time, we found a significant statistical difference among groups ( $P < 0.001$ ). Although the mice inoculated with the attenuated strains of *N. brasiliensis* had smaller lesions compared to the control group; none of the mice healed completely.

#### CONCLUSION

In this experimental evaluation, using as a vaccine a *N. brasiliensis* attenuated strain, we observed a decrease in the size of the lesion over time in BALB/c mice inoculated with the P400 strain. More studies are needed to calculate the appropriate dose to inject or the possible use of adjuvants to modify the natural history of this disease.

## INFECTION - VIRAL

### Prevalence of Mucosal and Cutaneous Manifestations among HIV/AIDS patients ages 18-60 years old seen in a tertiary hospital in the Philippines

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#### INTRODUCTION

Around 90% of people living with HIV have skin changes during the course of illness and are usually the first sign of infection. Mucocutaneous findings can also be correlated with CD4 counts to determine disease severity. With increasing incidences and in a resource limited setting like the Philippines, dermatologic lesions can help assess HIV disease severity and prognosis. Objectives: To determine mucocutaneous disease findings of HIV/AIDS patients seen in a tertiary hospital; describe the skin findings based on patient's latest CD4 counts; and to determine patients' demographic profile.

#### METHODOLOGY

This is a Prospective Cross sectional study done on a tertiary hospital in Makati city, Philippines from January 2017 to September 2018. Interview was conducted in a private site with each session comprising of a thorough history taking followed by a physical and dermatologic examination. Assessment of the skin lesions was done by the Principal Investigator with the Research adviser. A standardized history and physical examination form was filled up and latest CD4 counts were obtained. Diagnosis was based mostly on clinical criteria however diagnostic procedures were done if deemed necessary.

#### RESULTS

A total of 93 patients were enrolled. Majority were males (98%), with a mean age of 32 +/- 7.08, employed (64%), obtained a bachelor's degree (72%) and on HAART (87.1%). A large part of the group (45%) has severe immunosuppression (CD4 <200/mm<sup>3</sup>). A total of 126 dermatoses were seen and increase in no. of dermatoses were seen on patients with CD4 counts <200/mm<sup>3</sup>. Non-infective dermatoses (52%) such as seborrheic dermatitis (P=0.616), xerosis (P=0.257), pruritic papular eruptions (P=0.045) were the most common manifestations followed by fungal infections (22%) and drug related dermatoses (13%).

#### CONCLUSION

A wide range of dermatologic findings among HIV patients can be seen which could serve as cutaneous markers and help determine the degree of immunosuppression. However with the introduction of HAART, this has altered disease progression of the patients thereby reflecting the changing spectrum of the dermatologic diseases seen among HIV/AIDS patients. With increasing incidences in the Philippines, the presence of these distinct dermatoses should warrant a strong suspicion for any underlying immunosuppression which could play a vital role in the overall disease management of the patients.

## INFECTION - VIRAL

### Adult-onset of Infective Dermatitis in the context of HTLV-1-associated Tropical Spastic Paraparesis – a case report.

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#### INTRODUCTION

Human T-cell lymphotropic virus type 1 (HTLV-1) is the etiologic agent of adult T-cell leukemia/lymphoma (ATLL), tropical spastic paraparesis (TSP), infective dermatitis associated with HTLV-1 (IDH) and various other clinical conditions<sup>1</sup>. IDH is a chronic, relapsing and rare dermatitis classically of childhood, but adult-onset case report has been described<sup>2</sup>. TSP figures as a disabling neurodegenerative myelopathy that usually occurs in fourth or fifth decades of life with women being predominantly affected. Both conditions can be associated in HTLV-1 infected patient<sup>1</sup>.

#### METHODOLOGY

Case report A 56-year-old woman with TSP and two years with pruritus, xerosis, fine papular rash, diffuse scaling and lichenified plaques on buttocks, trunk, nape and limbs with exudative lesions occasionally present. Intermittent rhinorrhea was reported with no history for atopy. Histopathological study was unspecific. Immunohistochemistry ruled out malignancy. Anemia, increased CD4/CD8 ratio and erythrocyte sedimentation velocity rate were found. Nasal swab culture was positive for *S. aureus*. Other serologies were negative. Sulfamethoxazole-Trimethoprim was started with notable improvement.

#### RESULTS

Discussion IDH is an eczematous dermatitis typically of childhood, in contrast to TSP that usually affects adults, despite the adult-onset of IDH as well as its concurrency with TSP has already been described<sup>1</sup>. Dermatological illness such as atopic and seborrheic dermatitis similarity may lead to misdiagnosis and underreporting of IDH cases<sup>1</sup>, so the diagnostic criteria adapted from La Grenade et al<sup>2</sup> works as a guidance to this issue. The management of this co-presentation remains on preventing HTLV-1 transmission and control of IDH manifestations associated with multidisciplinary support<sup>2</sup>.

#### CONCLUSION

Skin disorders in the HTLV-1 positive patient are important causes of referral to the dermatologist<sup>3</sup>. IDH presentation is variable and it may manifest only in adulthood possibly concomitant to others HTLV-1 associated disorders<sup>1</sup>. Thus, dermatologists and neurologists should be aware that these diseases could occur in individuals of any age<sup>1</sup>. Therefore, the challenging diagnosis and management of HTLV-1 infection issues require a multidisciplinary work<sup>1</sup> in order to avoid misdiagnosis and to reduce the impact in patient quality of life.

LYMPHOMA, CUTANEOUS/  
MYCOSIS FUNGOIDES

### Granulomatous Slack Skin, Variant Of Mycosis Fungoides Misdiagnosed As A Leprosy

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#### INTRODUCTION

Granulomatous slack skin (GSS) is an unusual subtype of mycosis fungoides, a primary cutaneous T-cell lymphoma. Clinically it is characterized by asymptomatic erythematous plaques in the axillae and groins that slowly progress to bulky, infiltrated pendulous folds of redundant atrophic skin, resembling cutis laxa. Histopathology shows a dense granulomatous infiltrate in the dermis that extend to the subcutaneous tissue, multinucleated giant cells, emperipolesis, atypical lymphocytes and elastophagocytosis. The lesion can be confused with other granulomatous diseases as leprosy or sarcoidosis.

#### METHODOLOGY

A 49-years old male with a 6-years history of erythematous lesions on the limbs and trunk. Two skin biopsy was taken and reported leprosy. Thus he was treated in another clinic with paucibacillary regimen plus prednisolone with partial improvement. Four years later he presented axillary tumors. On examination, he had in the axillae infiltrated masses with bulky and pendulous skin folds. Without sensitivity disorders. A new skin biopsy showed diffused dermal granulomatous infiltrate extending to subcutaneous tissue, with giant cells and atypical lymphocytes. The final diagnosis was GSS

#### RESULTS

GSS has very low frequency <1% with around 50 cases reported in the literatura. Most patients have indolent behavior, with few cases reported of extracutaneous dissemination. One third of the patients have the risk to later develop a secondary lymphoma (Hodgkin and non-Hodgkin's lymphomas). For this reason these patients need a regular observation to early detect a new neoplasia. The difficulty to recognize the typical features leads to take multiple biopsies before to establish the correct diagnosis and may be misdiagnosed in endemic areas as leprosy despite clinical differences.

#### CONCLUSION

GSS, an infrequent variant of mycosis fungoides, can be misdiagnosed as Hansen's disease especially in the endemic countries, due to histological and epidemiological features. The skin biopsy shows dermal granulomas (perineural and intraneural) that may mimic leprosy, delaying in years the correct diagnosis. The clues that supports the GSS include typical axillary and groin bulky skin folds, deep granulomatous infiltrates with nerves slightly affected, without destroyed them. These clinicopathological correlation are necessary to avoid inappropriate treatment like in our case.

## LYMPHOMA, CUTANEOUS/ MYCOSIS FUNGOIDES

### Sézary syndrome with central nervous system (CNS) involvement

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#### INTRODUCTION

Sézary's syndrome (SS) with central nervous system involvement is a rare condition. We report the case of a 67-year-old male, who was consulted in 2015 in emergency for disseminated erythematous papular lesions associated with submandibular adenopathies. Biopsies were performed, with results compatible with SS. The patient received 5 sessions of chemotherapy and responded excellently, with resolution of the lymphadenopathy and the skin lesions. In 2018, the patient was admitted to the neurological department due to paraparesis with the clinical suspicion of an infiltration of SS into the CNS.

#### METHODOLOGY

Under the clinical suspicion of SS with CNS involvement vs occupant space injury in the medullary canal that is generating paraparesis. MRI is performed; severe narrowing of the medullary canal is documented, with lesions in vertebral bodies of L2-L5. In addition, lumbar puncture was performed, with cerebrospinal fluid documenting a 93% concentration of atypical lymphocytes phenotypically compatible with Sezary cells (CD2 + / CD5 + / CD45 + / CD3 + / CD7- / CD4- / CD8- / CD56-). The diagnosis of SS with CNS involvement is confirmed. Intrathecal chemotherapy is initiated immediately.

#### RESULTS

The patient received 4 doses of intrathecal chemotherapy; however, this was ceased due to the patient presenting blood-cerebrospinal fluid secondary to thrombocytopenia (20,000 units / uL, despite multiple transfusions). After hospital discharge in December 2018, the patient was referred to the palliative radiotherapy, palliative physiotherapy and palliative medicine unit. Patient finally dies in February 2019 due to bronchopneumonia at the end of life.

#### CONCLUSION

Sézary's syndrome (SS) is a non-Hodgkin lymphoma characterized by the triad of diffuse erythroderma, generalized lymphadenomegaly, and malignant T lymphocytes with cerebriform nuclei called Sézary cells. Central nervous system (CNS) involvement is a rare form of the condition, which has been seen in the final stages of the disease. It has a 5-year survival rate of 24%, and a common cause of death are consequences of infectious complications. Central nervous system involvement is rare complication and currently there is no established management protocol.

## PEDIATRIC DERMATOLOGY

### Acute gastroenteritis as initial presentation of accelerated phase of Chediak-Higashi Syndrome in a 10 weeks old girl

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#### INTRODUCTION

Chediak-Higashi Syndrome (CHS) is a rare autosomal recessive disorder, characterized by partial oculocutaneous albinism, was first described by Bequez- Cesar in 1943. There are 2 types, the classical associated with a severe form of the disease and the atypical (mild). The defective gene was identified in 1996 as the LYST/CHS1 gene. The nature of mutation can be a predictor of the severity of the disease. About 31 mutations in the LYST gene have been described, including nonsense, missense mutation, deletions. The mean age of onset is 5.85 years, and most patients die before age 10 years.

#### METHODOLOGY

Objectif: Case report A10-weeks-old-girl, HIV negative, admitted with fever and acute gastroenteritis. Physical examination revealed fever 39°, pallor, light skin, silver hair, scalp bruising, jaundice and hepatosplenomegaly and lymphadenopathy. Hematological findings on admission were multifactorial anemia (HB 5.1) with conjugated hyperbilirubinemia, leucocytes 23.61 X 10<sup>9</sup>, differential leucocyte showed neutrophil 32%, lymphocytes 59% C-reactive protein 51mg/L, (N:<10) and CMV-VL 33259 log 4.5. Light microscopy of hair shaft shows decreases melanin pigment with clumping of melanin granules.

#### RESULTS

The accelerated phase visceral lymphohistiocytic infiltration with haemophagocytosis associated with fever, jaundice, hepatosplenomegaly, lymphadenopathy, pancytopenia, bleeding tendency, and neurological complication. Less than 10 cases of CHS in African children had been documented in the literature, and about 500 worldwide emphasizing the rarity of this disease in Africans or those of African descent. This is the first case of the early initial presentation of the accelerated phase of CHS in a child of the non-consanguineous marriage to be reported in South Africa.

#### CONCLUSION

Pigmentary dilution in infants with hematological findings and recurrent infections should alert one to the diagnosis of CHS. Initial clinical presentation of CHS with the accelerated phase is and only a few cases have been reported in infants born of non-consanguineous marriage. In our patient, molecular study for mutations in the LYST gene was done and awaiting for a bone marrow donor match. The management is mainly symptomatic, but the treatment of choice is and about bone marrow transplant. However, the challenge lies in suspecting the disorder in the first place.

## PEDIATRIC DERMATOLOGY

### Measurement of lesional skin temperature in Leprosy before and after treatment.

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#### INTRODUCTION

Abstract introduction Leprosy is a chronic infection caused by Mycobacterium leprae with a predilection for skin and peripheral nerves. It is diagnosed clinically and confirmed by histology, which is invasive, expensive, time consuming and require expertise. Current treatment of leprosy with multidrug therapy has a fixed duration and it is not individualized. Better parameters are required to assess the efficacy of therapy. Hence a non-invasive, reproducible method in diagnosing and assessing response to treatment is much warranted. We are focusing on a novel method to fill this void.

#### METHODOLOGY

Methodology An analytical prospective study with a longitudinal cohort design was used. Lesional skin temperature was measured using a non-contact infrared thermometer in a controlled environment on 37 children (age ≤ 14 years) with polar and borderline tuberculoid leprosy. Temperature measured before (day 0), during (day 60) and after (day 210) starting paucibacillary type multi drug treatment with Rifampicin and Dapsone. Repeated measure ANOVA was used as the statistical method. A level of p<0.05 was considered as statistically significant.

#### RESULTS

Results Out of the 37 participants 19 (51.35%) were males and 18 (48.45%) were females. Mean age was 8.2 years. In the Pre-treatment period mean temperature of the center of the lesion was lower than the mean temperature of perilesional normal skin (0.34 degrees Fahrenheit) and it was statistically significant (P=0.047, CI=95%). This temperature difference was normalized with no statistically significant difference between the center and the perilesional skin during treatment (P=0.611) or one month after treatment (P = 0.892).

#### CONCLUSION

Conclusions Lesions show low temperature in the center compared to the periphery of the lesion which was reversed following treatment and can be used as a diagnostic tool. Reversal of this pattern following treatment can be used to determine cure. In the centers with less expertise this low cost and non-invasive method will be a significant assistance to clinical diagnosis.

### Skin Manifestations In Pediatric Patients With Primary Immunodeficiencies In FUNDACIÓN VALLE DEL LILI (CALI-COLOMBIA), 2013-2019

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#### INTRODUCTION

Primary immunodeficiencies (PIDs) are a heterogeneous group of inherited disorders caused by genetic mutations that alter proteins of immune system cells and they can manifest clinically as recurrent infections, autoimmunity, cancer, autoinflammation or allergic diseases. Therefore, the skin, requires special attention in the diagnostic and therapeutic process of patients with these pathologies. We aim to describe the clinical characteristics of skin manifestations in pediatric patients treated at the institution's PID clinic.

#### METHODOLOGY

Descriptive and retrospective observational study, based on the review of medical records of pediatric patients belonging to the primary immunodeficiencies clinic (with immunological and / or genetic diagnosis) of the Fundación Valle del Lili, in Cali-Colombia, during the years 2013 to 2019. Prior approval of research protocol by the ethics committee, the review of medical records was carried out and the database was completed on the BDCLINIC platform. Then, a descriptive analysis of the collected data was conducted.

#### RESULTS

306 children were treated during the established period, 83 patients (27.1%) presented some cutaneous manifestation during their illness. Of these 83 children, approximately the half had atopic dermatitis and / or a report of skin infection, which included a greater proportion of Bacterial skin infections (50%) and superficial fungi (40%). So far, there is no specific epidemiological information on this issue in Colombia, but it matches with things that authors have published in the literature, where there is evidence of a higher prevalence of atopic dermatitis and repeated skin infections.

#### CONCLUSION

In conclusion, this study demonstrated the importance of recognizing dermatological clinical characteristics in patients with PID. This is the first study carried out in Colombia, this is the reason why more studies are necessary, in order to establish recommendations regarding the approach of skin lesions in the pediatric population in clinical context of PIDs, to raise dermatological warning signs to suspect a PID when it has no previous diagnosis and define the relevance of the periodic follow-up by the dermatologist and his participation in the care-group for patients with PIDs.

## PEDIATRIC DERMATOLOGY

### Juvenile Xanthogranuloma - A Case Report

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#### INTRODUCTION

Introduction: Juvenile xanthogranuloma is the most common non-Langerhans cell histiocytosis. It occurs predominantly in the pediatric age and presents as single to multiple lesions, without or rarely with extracutaneous involvement. We describe the case of a child with clinical and histopathological signs of the disease.

#### METHODOLOGY

Case presentation: A two year-old female from Pleven, Bulgaria is admitted to the hospital for diagnostic clarification. The patient was a product of a full-term pregnancy with no pathological skin changes at birth. Skin lesions started appearing at the age of one. Besides this, the health history is unremarkable. Physical examination showed disseminated skin lesions over the face, the torso and the limbs. The pathological changes are yellowish-orange plaques over the skin level, varying in size (0.5-4 cm in diameter), with rugged surface, pronounced infiltrate and subjective itching.

#### RESULTS

There were no findings suggesting involvement of other organs and systems from the instrumental and the laboratory examinations. Histopathology showed presence of foamy histiocytes and single giant cells Touton type in the papillary derma, scarce chronic inflammatory perivascular infiltrate and single toluidine positive mast cells perivascularly, compatible to Juvenile xanthogranuloma.

#### CONCLUSION

Conclusion: Juvenile xanthogranuloma can vary in its clinical presentations and our case is classified as giant juvenile xanthogranuloma (with presence of lesions > 2 cm), with only 51 cases described in the English literature so far. Juvenile xanthogranuloma is usually a self-limiting disease with spontaneous involution. Herein we have not undertaken treatment to remove the lesions but an observational strategy.

### The Efficacy And Safety Of 75% Garlic (Allium Sativum) Lipid Extract Versus Curettage In The Treatment Of Molluscum Contagiosum: A Randomized Controlled Trial

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Friend Philemon Liwanag

#### INTRODUCTION

Molluscum contagiosum is a viral skin infection caused by the Poxviridae that frequently affects children and immunocompromised individuals. It presents after close exposure with infected persons or contaminated materials. Children develop lesions most commonly on the face, torso and extremities that are usually asymptomatic but pain, pruritus, erythema and bacterial superinfection have been reported. The disease course and duration of molluscum lesions are unpredictable. Currently, there is no Food and Drug Administration (FDA)-approved treatment or a recognized standard of care for molluscum.

#### METHODOLOGY

Randomized controlled trial of 25 patients, aged 3-15 years old, with molluscum contagiosum were treated with 75% garlic lipid extract or curettage. The garlic lipid extract was applied by the patient twice daily for 4 consecutive weeks or until erythema and erosions developed. Curettage was performed on the patient assigned to the curettage group with topical application of lidocaine one hour before the procedure. Patients were followed up on days 7, 14, 21, 28 and 56. Clinical remission (complete clearance) or treatment failure were assessed after 8 weeks (day 56) from start of treatment.

#### RESULTS

The efficacy of treatment was assessed by clinical remission defined as complete clinical clearance of lesions at week 8. The garlic group, 130/166 (78.31%) lesions achieved clinical remission whereas 154/178 (87%) lesions showed clinical remission in the curettage group. There was a significant difference between the two treatments in attaining complete clinical clearance after 8 weeks in the intention-to-treat analysis (P= 0.0451) and per-protocol analysis (P=0.0296), favoring the efficacy of curettage over garlic lipid extract.

#### CONCLUSION

This study shows that 75% garlic lipid extract has efficacy in the treatment of molluscum contagiosum and that it can be a potentially safe and cost-effective alternative topical treatment for molluscum contagiosum especially for children who cannot tolerate the pain of curettage.

## PSORIASIS & OTHER PAPULOSQUAMOUS DISORDERS

### Assessments of Lipid and Hemogram profiles in Psoriasis Patients With in Biologic Therapy

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#### INTRODUCTION

Patients with psoriasis are at increased risk of metabolic disease. Lipid changes are related to inflammation have been described in psoriasis. In recent years, hematological parameters have been studied in different systemic diseases as markers for inflammation. The aim of this study was to assess changes in hemogram (neutrophil to lymphocyte ratio(NLR), platelet to lymphocyte ratio(PLR) ) and Lipid Profile (Total cholesterol, triglycerides, low-density lipoprotein, high-density lipoprotein, and atherogenic index in psoriatic patients under treatment of biologics therapy quarterly.

#### METHODOLOGY

This study is a retrospective analysis of hemogram parameters(n:153) and lipid profiles(n:124) in psoriasis patients with in use of TNF- antagonists (adalimumab, etanercept, infliximab), interleukin (IL)12/23-antagonist ustekinumab and monoclonal anti-IL-17A antibody secukinumab. Patients with use of additional systemic treatment for psoriasis, use of antilipidemic and antiplatelet drug, familial hyperlipidemia and secondary hyperlipidemia, anaemia, thrombocytopenia/ thrombocytosis were excluded. Parameters at the baseline, at the fourth and seventh months of the therapy were taken into account.

#### RESULTS

According to general linear model and friedman's analysis, lymphocytes significantly increased after the treatment at Etanercept, Adalimumab. Platelets and plateletcrit significantly decreased after the treatment with Etanercept, Ustekinumab and Secukinumab. Lipid profiles and atherogenic index did not show statistically significant differences between drug groups and follow-up values. In Psoriasis patients, NLR and PLR ratio have significantly positive correlations with PASI.

#### CONCLUSION

Although some changes occur in haematological parameters during biologic therapy, all of these changes remain within the normal range. Evaluating the spot values at any time during treatment may cause misinterpretations. Although hyperlipidemia is an important comorbidity in psoriasis, we did not observe a significant change in lipid profiles in contrast to previous studies with biologic therapy. Our data shows that NLR and PLR ratio to be a simple, inexpensive and easily assessable marker of systemic inflammation in patients with psoriasis.

## SURGERY – DERMATOLOGIC

### Eccrine angiomatous hamartoma

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#### INTRODUCTION

Eccrine angiomatous hamartoma is a rare benign nodular or plaque like tumor of hamartomatous in nature which usually present at birth or during childhood. Both sexes are affected equally. It presents as asymptomatic solitary or multiple lesions affecting mainly the acral sites. pain and focal hyperhidrosis may be apparent. Histology shows nests of large normal eccrine glands, enmeshed in loose fibrous tissue which contains numerous thin walled blood vessels and lymphatics Here am reporting one of rarely reported cases of Eccrine angiomatous hamartoma.

#### METHODOLOGY

Methodology: 19 years old female presented with single lesion over the right leg of 2 years duration since she noticed it. Initially it was asymptomatic nodule and gradually increased in size to form 4x5 cm plaque. She developed pain and localized sweating over the site 4 months prior to presentation. Symptom is more exaggerated when patient feel warm and stressed. Physical examination revealed ill-defined slightly tender hyperpigmented indurated plaque of 4x5 cm over the right medial proximal leg. With localized hyperhidrosis on the surface.

#### RESULTS

With the above history and physical examination localized Morphea was initially considered and punch biopsy was done. Histopathological examination showed numerous dilated blood vessels lined by single endothelial cell layer dissecting the entire dermis and increased number of normal looking eccrine sweat glands immersed in mucinous stroma. Overlying epidermis showed mild acanthosis.

#### CONCLUSION

After we confirmed the diagnosis of EAH with the histology surgical excision was done and wound was closed with primary closure. I tried to show in my case report one of the rare dermatologic condition which I encountered in my daily outpatient department (OPD) practice. This case report can add up to the extremely rare case report on eccrine angiomatous hamartoma. And could also contribute to dermatologist to increase high index of suspicion on rare dermatologic condition.

# SCHOLARSHIP RECIPIENTS

