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Dear Doctor,

Greetings from Micro Labs. We are happy to bring you "COSMODERMA TIMES" which contains latest and interesting news in the field of Dermatology.

This issue contains:

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Looking forward to your valuable feedback.

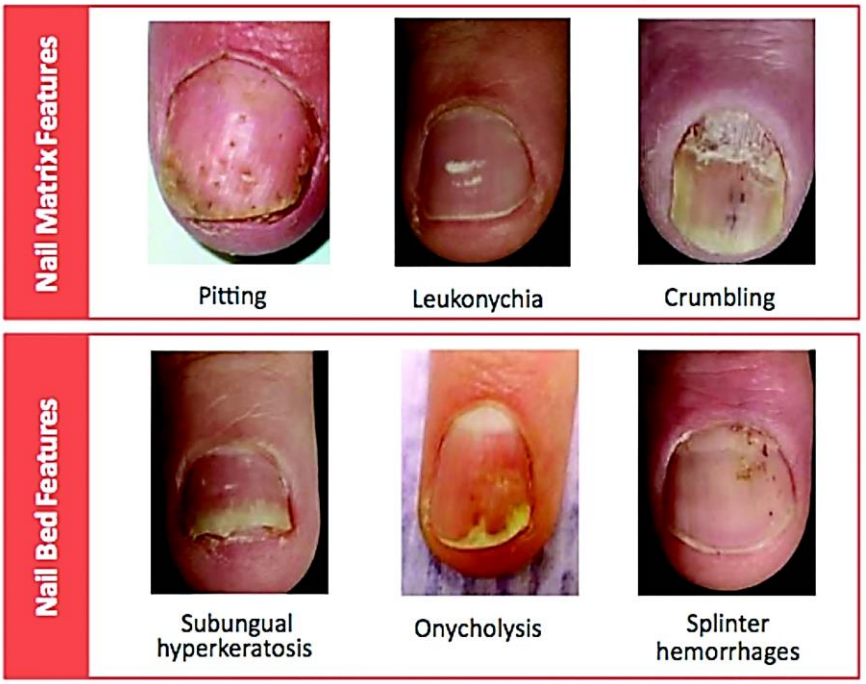
Best Regards,

Medical Team, Micro Labs Limited.

A Study on Assessing the Psoriatic Nail Dermoscopic Features and Disease Severity

Introduction:

Psoriasis is a prevalent, chronic inflammatory disease that manifests itself in the skin, nails, joints, and systemically. The prevalence of nail psoriasis (NP) in people with psoriasis is up to 50% and 80-90% in patients with psoriatic arthritis. Nail matrix psoriasis and nail bed psoriasis are two types of NP [(1)]. Pitting, leukonychia, cracking, and predominant red patches visible in the lunula are all signs of nail matrix involvement. Nail bed infection can present itself in a variety of ways, including onycholysis, splinter haemorrhages, and subungual hyperkeratosis. The gold standard for nail psoriasis diagnosis continues to be diagnostic biopsy, which is still painful. Dermoscopy is a non-invasive method whose application has expanded beyond its original usage in cutaneous melanoma to become an adjuvant tool in the diagnosis of other pigmented and non-pigmented skin illnesses, including nail disorders (also known as onychoscopy) [(2)]. The study's objective was to assess the dermoscopic characteristics of nail psoriasis and clinically correlate them.



Nail psoriasis

Methods:

This cross-sectional study comprised 50 patients who had nail psoriasis. The severity of psoriasis on the skin and nails was evaluated using the psoriatic area severity index (PASI) and

the nail psoriasis severity index (NAPSI). The nails were onychoscoped, and the features were noted and examined. Dermoscopic pictures were taken using both polarised and non-polarized modes using a DermLite DL4×10 dermoscope.

Results:

This research included patients with psoriasis. Their average age was 44± 18.62. There were 41 males (82%) and nine females (18%) among the patients. Onycholysis (82%) and pitting (86%) were the most common dermoscopic and clinical findings (Table 1). Only longitudinal striations and subungual hyperkeratosis were substantially more common in individuals with moderate to severe psoriasis than in those with mild psoriasis among all dermoscopic nail psoriasis characteristics (P= 0.028 and P =0.042, respectively). Both the duration of the psoriasis and the dermoscopic NAPSI (r =0.022, P= 0.879) and the Psoriasis Area and Severity Index (PASI) and The Nail Psoriasis Severity Index score (NAPSI) scores did not significantly correlate with one another.

Table 1:Analysis of the dermoscopic characteristics of psoriasis patients.

Dermoscopic feature	Study cases ($n = 50$)
Pitting	43 (86%)
Onycholysis	41 (82%)
Longitudinal striations	32 (64%)
Prominent capillaries at onychodermal band	28 (56%)
Splinter hemorrhage	26 (52%)
Salmon patch	23 (46%)
Subungual hyperkeratosis	23 (46%)
Leukonychia	13 (26%)
Beaus lines	12 (24%)
Spotted lunula	5 (10%)
Crumbling	5 (10%)
Onychomadesis	3 (6%)
Melanonychia	2 (4%)
Transverse striations	1 (2%)

Categorical data are expressed as number (%).

Discussion:

Dermoscopy is a simple, non-invasive technology used to diagnose and monitor a variety of skin conditions. Onychoscopy, or nail dermoscopy, can be a useful tool for visualising,

confirming, and monitoring patients with nail psoriasis even though histopathology is the preferred method of diagnosis in psoriasis. Pitting (n=43; 86%) was the most prevalent dermoscopic finding in the current investigation [(2)]. In a similar study by Edirne Sultan et al found that pitting was the most reliable and the third most prevalent clinical finding in psoriatic individuals [(3)]. NAPSI and PASI showed a modest, non-significant connection in the current research (r= 0.132, P =0.360). this Is in similar with study by N. Wanniang et al showed that the association between the PASI score and the entire NAPSI score is strong (r =0.535, P <0.001) [(4)].

Conclusion:

Dermoscopy is an easy-to-use, non-invasive approach for verifying nail changes in psoriatic disease or in isolated nail involvement. It can be useful for making an early diagnosis of psoriatic nail changes that aren't always visible to the naked eye.

Dermoscopy is an easy, non-invasive approach for evaluating nail abnormalities in psoriatic disease or in limited nail involvement.

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A study on assessing the Use of Serum Total IgE and Blood Eosinophil Levels to Predict Phototherapy Response in Patients with Atopic Dermatitis.

Introduction:

Atopic dermatitis (AD) is a fatal, recurrent, chronic inflammatory dermatosis that impairs quality of life, sleep, mood, and productivity while also causing skin xerosis and pruritic lesions. Its complex aetiology includes both a T helper 2 (Th2)-polarized immune response and a dysfunctional epidermal barrier[(1)]. The severity of a disease is now assessed only by its clinical features. The most often employed grading methods are the Investigator's Global Assessment (IGA), the SCORing Atopic Dermatitis (SCORAD) Index, and the Eczema Area and Severity Index. However, due to their complexity and time-consuming nature, they are usually used in clinical investigations. Common indicators used in clinical practise include peripheral blood eosinophil counts and total serum IgE levels. IgE levels and eosinophilia have both been connected to the severity of AD. It would be beneficial for clinicians to have an objective, measurable, and easily accessible biomarker to predict NB-UVB phototherapy treatment response in order to avoid patients getting disappointed with the lack of improvement or even worsening of skin problems after a long-term treatment [(2)].So, the purpose of this study was to determine if total blood IgE levels and eosinophil count correlate with phototherapy response in AD patients, in order to assess their use as prospective biomarkers.

Methods:

This is a retrospective analyses include 82 patients with AD. This study evaluated demographics, serum IgE levels, blood eosinophil count, length of hospitalisation, responsiveness to phototherapy, and requirement for systemic therapy AD patients who underwent phototherapy. By comparing each patient's pre- and post-treatment Investigator's Global Assessment score, the response to phototherapy treatment was assessed. The Mann-Whitney U test was used to compare continuous variables. A scatter plot model was used to determine the serum IgE and blood eosinophil threshold values with the highest sensitivity and specificity for treatment response.

Results:

Patients who did not respond to phototherapy had significantly higher total IgE and eosinophil levels (p= 0.018 and p =0.002, respectively). Serum levels of 1780 IU/mL for IgE and 225.0 cells/µL for eosinophils indicated the highest sensitivity and specificity as treatment response predictors. According to the findings of this study, eosinophilia and high total blood IgE levels were linked to a poor response to phototherapy. A scatter plot model was used to identify a threshold value of total blood IgE levels in relation to phototherapy response. Patients were therefore less likely to respond to phototherapy treatment when their blood IgE levels were higher than the suggested limit.(Fig 1).

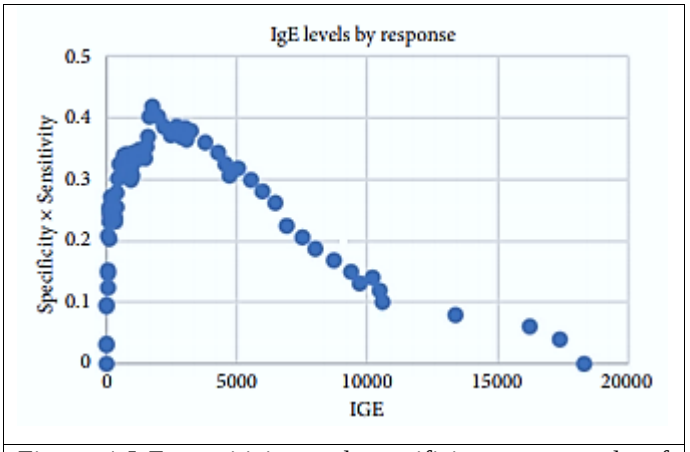

Figure 1:IgE sensitivity and specificity as a result of therapeutic response. The suggested threshold IgE level for predicting the total response to phototherapy is 1780 IU/mL, which also has the highest sensitivity and specificity. IgE,immunoglobulin E.

Discussion:

According to this statistical analysis, the threshold eosinophil level is 225.0 cells/µL, and the cutoff IgE level is 1780 IU/mL.Patients who did not respond to phototherapy had significantly greater eosinophil levels than those who respond. Current statistical study shows that the threshold eosinophil level is 225.0 cells/µL and the cutoff IgE level is 1780 IU/mL. Laske and Niggemann evaluated 345 children for the presence of IgE in understanding the need to recognise the relationship between IgE levels and the severity of AD. They discovered a significant association between the SCORing Atopic Dermatitis (SCORAD) system and blood IgE levels when using the SCORAD method for assessing the severity of AD (2). Further Kasperkiewicz M et al showed that, increased total serum IgE levels continue to be a key indicator of AD, and anti-IgE-treatment strategies are becoming more and more advised for patients with severe therapy-refractory AD (3).

Conclusion:

This study results showed the significance of blood eosinophil levels and serum IgE levels as easily accessible biomarkers that may be used to assess AD patients before determining on

their course of therapy. The cutoff values for IgE and eosinophil levels that are reported may help doctors choose the best course of treatment for their AD patients, including whether to start phototherapy or advance their care to systemic alternatives.

Serum IgE levels and blood eosinophil counts are two readily available indicators that may be used to evaluate Atopic dermatitis (AD) patients before deciding on their course

Reference:

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Study on evaluating the efficacy of Sparse-DenseWave Electroacupuncture on Patients with Acute Facial Paralysis

Introduction:

Peripheral facial paralysis(PFP), often known as facial paralysis, is defined by a sudden onset of unilateral facial muscle weakness. As the most prevalent facial nerve condition, facial paralysis affects 11.5 to 53.3 people per 100,000 people per year across diverse demographics [(1)]. PFP's exact aetiology and pathogenesis are yet unknown. Herpes viruses are now thought to play a role in this. A cell-mediated immune response to myelin that resembles a mononeuropathy type of Guillain-Barre syndrome (GBS) is another potential aetiology component. The use of corticosteroids is strongly suggested for PFP due to the substantial evidence supporting its ability to enhance both short- and long-term prognosis. Although there isn't much evidence to support their advantages, antivirals are also utilised in considering the potential importance of herpesviruses [(2)]. Modern medicine mostly uses nutritional neurotherapy and antiviral therapy to treat this medical condition, while traditional Chinese medicine (TCM) also accepts acupuncture as a viable therapeutic option. Acupuncture stimulation levels can be adjusted. Specifically, there are three types of waveforms that electroacupuncture stimulates: continuous, intermittent, and sparse waves [(1)]. The study's goal was to determine if electroacupuncture (EA) with sparse-dense wave shape is effective in treating patients with acute facial paralysis for facial nerve edoema, facial spasms, and nerve damage.

Methods:

This prospective study comprised 100 individuals with acute facial paralysis. They were divided into two groups at random: the control (continuous wave) and the sparse-dense wave (sparse-dense wave), and then EA with different wave types interfered with them. The two groups' facial disability index (FDI) assessments and blood levels of immunoglobulin A (IgA), immunoglobulin G (IgG), and immunoglobulin M (IgM) were then compared.

Results:

In comparison to the control group, the sparse-dense wave group had significantly higher rates of overall effectiveness (98.00% and 86.00%, respectively; $P< 0.05$) and facial spasm recovery

(76.00% and 56.00%, respectively; P <0.05). Physical function ratings increased (P <0.05) in both groups after therapy, whereas social/well-being dysfunction levels dropped (P< 0.05). Furthermore, serum IgA, IgG, and IgM levels declined in both groups (P< 0.05), and serum levels in the sparse-dense wave group were considerably lower than in the control group (P< 0.05).

Group	Recovery	Marked Improvement	Improvement	Ineffective	Total Effectiveness Rate	P
Control group	14	21	8	7	86.00%	0.027
Sparse-dense wave group	24	18	7	1	98.00%	

Table 1 : Comparison of the Two Groups' Effectiveness in Improving Facial Paralysis (n = 50).

Discussion:

Peripheral facial paralysis is a disorder that develops as muscular paralysis affecting facial expression, notably the frontalis muscle, making it difficult to perform facial movements such as knitting one's brows and frowning [1]. Additionally, Di Y et al demonstrated patients have symptoms that have an impact on their psychological well-being and self-image, such as partial eye closure, lip corner drooping, and air leakage during cheek bulging [3]. The term "EA sparse-dense wave form" describes a wave that alternates between sparse and dense wave output. According to TCM, EA with sparse-dense wave shape can improve blood and lymphatic circulation, direct muscular contraction, and relax muscles, all of which help patients with face discomfort [1]. Zeng W et al demonstrated that when peripheral facial paralysis is in its acute stage, the therapeutic impact of EA sparse-dense wave form is most noticeable [4].

Conclusion:

This study concludes that, EA intervention with sparse-dense wave form has a good therapeutic effect in patients with acute facial paralysis because it can efficiently reduce the degree of facial spasm and reduce the body's inflammatory response, promoting neural edoema and nerve injury repair while further improving facial muscle function.

Electroacupuncture (EA) intervention with sparse-dense wave form has a good therapeutic effect on patients with acute facial paralysis because it can effectively reduce the intensity of facial spasm and the body's inflammatory response, promoting neural edoema and nerve injury repair while also enhancing facial muscle function.

Reference:

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Multiple apocrine hidrocystomas on the periorbital regions and cheeks treated with partial excision and ablative carbon dioxide fractional laser therapy.

Introduction:

Hidrocystomas are cystic tumours that develop from sweat glands and can be categorised as apocrine or eccrine based on histological features. Apocrine hidrocystoma (AH) is an adenomatous cystic growth of the secretory coil of apocrine sweat glands [(1)]. According to a histological analysis, they appear in the dermis as unicameral or multifocal cysts. The inner cyst wall is bordered by a luminal layer of apocrine secreting columnar cells and a peripheral layer of fatty myoepithelial cells. Simple excision, electrodessication, or CO2 laser therapy are all effective ways to get rid of solitary lesions. However, treating numerous lesions is challenging due to the quantity and distribution of these lesions. Furthermore, no accepted treatment strategy for numerous lesions is currently available [(2)]. This is a case report of a patient who had partial excision and treatment with an ablative CO2 fractional laser system (CO2 FS) for multiple apocrine hidrocystomas on the periorbital regions and cheeks.

Case Report:

A 51-year-old woman presented with transparent papules on her cheekbones and periorbital region that had become larger during the previous four years. The sores grew more visible and blocked her eyesight when her body was warm, as after a bath. At a nearby clinic, she had a skin biopsy, and several apocrine hidrocystomas were found. Numerous dome-shaped, skin-colored, transparent lesions up to 2 mm in diameter were found during physical examination of the periorbital regions and both cheeks(figure1a). According to T1- and T2-weighted imaging, 1 to 2 mm papules with low and high intensities were seen inside the dermis by magnetic resonance imaging. lower eyelids were partially removed as the first step in the therapy.

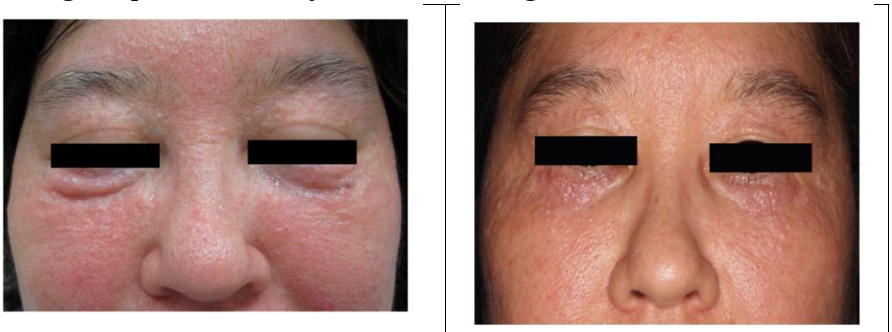

Fig 1(a): Numerous skin-colored transparent papules on the cheekbones and periorbital areas. (b) Lesions on her lower eyelids do not obstruct her eyesight nine months after surgery.

Fig 1(c): Six months following laser therapy, the lesions have improved, while some scarring and hypopigmentation remain. (d) The persistence of the effect for CO_2 FS was considered to be constant for at least three years.

Multiple dermal cysts were found during histopathological investigation. A row of columnar secretory cells were seen lining the cysts' inner layer, which was surrounded by myoepithelial cells that had gotten fat. The patient's eyesight was no longer obstructed following surgery (Figure 1(b)). After 1.5 years of follow-up, an ablative 10,600 nm CO2 FS was utilised to treat her lower eyelids and cheeks' slightly enlarged apocrine hidrocystomas. Eye shields were employed for eye protection, while 1% lidocaine and epinephrine were used to administer local anaesthesia in the treatment region. The symptoms continued to improve after around six months and three years of follow-up, and the aesthetic outcomes were good, despite some slight scarring and hypopigmentation that persisted (Figures 1(c) and 1(d)).

Discussion:

Hidrocystomas are benign skin tumours that mostly affect the face. There is presently no fixed therapeutic choice for numerous apocrine hidrocystomas. However, a CO2 FS effectively cured 35 individuals with periorbital syringomas [(2)]. In another study by J.R. Bordelon et al showed that Patients with apocrine hidrocystomas that are numerous or resistant to previous treatment techniques may benefit from intralesional botulinum toxin A (BTX-A) [(3)].

Conclusion:

The CO2 FS provided good clinical and aesthetic benefits in this trial, despite the presence of some scarring and hypopigmentation. Scarring, scar contracture, and depigmentation are potential side effects of CO2 FS treatment, especially in the eyelid. In present case, some recurrence required repeated CO2 FS treatments three years after the initial CO2 FS therapy. There is a decrease in tumour size, despite the fact that the treated lesions have not completely

returned to their normal state, making it difficult to assess the total effect. Additionally, this study found that the treatment effect persisted for at least three years.

In this research, the presence of mild scarring and hypopigmentation, the CO2 FS achieved good therapeutic and aesthetic effects.

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