Abstract N°: ID-438

Topic: Photobiology, photoallergy and phototherapy

Narrowband UVB phototherapy (311 nm) combined with a topical calcineurin inhibitor in the treatment of localized scleroderma

Nadiia Zhuk[1], Tetiana Lytynska*[1], Mariia Vasylevska[1]

[1]Bogomolets National Medical University, Kyiv, Ukraine

Introduction

Localized scleroderma (localized cutaneous scleroderma) is a chronic multifactorial disease characterized by a prolonged, progressive course with successive stages of inflammation, fibrosis, and atrophy. In recent years, not only has a steady increase in the number of patients been observed, but also a growing diversity of clinical manifestations, an increase in severe and aggressive disease courses, diagnostic difficulties, and insufficient effectiveness of existing treatment methods.

The present study aims to investigate the efficacy and safety of narrowband UVB phototherapy (311 nm) in combination with a topical calcineurin inhibitor in the treatment of patients with localized scleroderma.

Materials and Methods

A total of 34 patients with localized scleroderma were examined and treated. Plaque-type localized scleroderma (morphea) was diagnosed in 21 patients (61.8%), guttate morphea in 2 (5.9%), idiopathic atrophoderma of Pasini–Pierini in 5 (14.7%), linear scleroderma in 4 (11.7%), and generalized morphea in 2 patients (5.9%).The patients' age ranged from 19 to 53 years; 27 were women (79.4%) and 7 were men (20.6%). Disease duration ranged from 6 months to 19 years. Treatment included narrowband UVB phototherapy (311 nm) using a Dermalight 3000 device (Dr. K. Hönle Medizintechnik GmbH) combined with a topical calcineurin inhibitor (TCI). Phototherapy was administered 2–3 times per week, while the topical TCI was applied daily.

Therapeutic efficacy was assessed based on the dynamics and degree of regression of objective clinical manifestations and subjective symptoms, as well as long-term treatment outcomes and remission stability.

Results

Following comprehensive treatment, marked improvement (complete resolution of the inflammatory peripheral rim, reduction in lesion size and skin induration, restoration of skin elasticity, and absence of subjective symptoms) was observed in 11 patients (32.3%). Improvement (partial resolution of the inflammatory peripheral rim, partial restoration of skin elasticity, and reduction in skin induration without subjective symptoms) was noted in 18 patients (52.9%), while disease stabilization (fading of the inflammatory peripheral rim and absence of new lesions) was achieved in 5 patients (14.7%). During the 12-month follow-up period after completion of therapy, disease relapse was observed in 4 patients (11.8%).

Conclusions

Narrowband UVB phototherapy (311 nm) in combination with a topical calcineurin inhibitor is an effective and safe treatment option for patients with localized scleroderma. All patients tolerated the treatment well, and no complications, adverse reactions, or undesirable effects were reported.

Abstract N°: ID-1051

Topic: Photobiology, photoallergy and phototherapy

Recalcitrant cutaneous warts successful treated by photodynamic therapy with pretreatment

Bihua Liang*[1], Jiaoquan Chen[1], Huilan Zhu[1]

[1]Guangzhou Dermatology Hospital, Guangzhou, China

Introduction

Recalcitrant cutaneous warts usually challenged the dermatologists in clinic because of high recurrence rate, especially the long duration cases. Here we study the effectiveness and safety of photodynamic therapy for recalcitrant cutaneous warts with long duration.

Materials and Methods

Six patients with 17 lesions of recalcitrant cutaneous warts diagnosed as periungual warts, labial mucosa wart, nasal mucosal wart, palmar wart and plantar warts with a history of multiple failed previous treatments (such as cryotherapy, carbon dioxide laser, interferon injections) were included and treated with ALA-PDT. Singel fractional CO2 laser, scraping with the lancet fractional CO2 laser or combine were performed each time before PDT.

Results

Patient	diagnosis	Age (years)	Sex	Duration (years)	Size of Lesions	Thickness of lesions	Number of Lesions	Previous treatments	Number of treatments	Clinical response
1	periungual warts	30	Male	5	Small (<1cm)	Superficial (<2mm)	1	Cryotherapy*5, Carbon dioxide laser*3	4	Complete response
2	periungual warts	30	Male	5	Medium (1-2cm)	Superficial (<2mm)	1	Cryotherapy*5, Carbon dioxide laser*3	4	Complete response
3	periungual warts	27	Male	5	Medium (1-2cm)	Superficial (<2mm)	1	Cryotherapy*10,	4	Complete response
4	periungual warts	22	Male	3	Small (<1cm)	Superficial (<2mm)	1	Interferon injections*5	4	Complete response
5	Labial Mucosa Wart	32	Male	8	Small (<1cm)	Moderately Deep 2-4mm	3	Carbon dioxide laser*4	2	Complete response

	Labial Mucosa Wart	32	Male 8	Small (<1cm)	Moderately Deep 2-4mm	2	Carbon dioxide laser*4	3	Complete response
	Nasal Mucosal Wart	32	Male 8	Small (<1cm)	Moderately Deep 2-4mm	1	Carbon dioxide laser*4	3	Complete response
	Palmar wart	32	Male 4	Small (<1cm)	Superficial (<2mm)	1	Carbon dioxide laser*3	4	Complete response
6	plantar warts	42	Male 8	Small (<1cm)	Superficial (<2mm)	1	Cryotherapy*15, Carbon dioxide laser*3	7	Complete response
	plantar warts	42	Male 8	Medium (1-2cm)	Moderately Deep 2-4mm	1	Cryotherapy*15, Carbon dioxide laser*3	8	Complete response
	plantar warts	42	Male 8	Small (<1cm)	Moderately Deep 2-4mm	1	Cryotherapy*15, Carbon dioxide laser*3	9	Complete response
	plantar warts	42	Male 8	Small (<1cm)	deep (>4mm)	1	Cryotherapy*15, Carbon dioxide laser*3	12	Complete response
	plantar warts	42	Male 8	Small (<1cm)	Superficial (>4mm)	2	Cryotherapy*15, Carbon dioxide laser*3	13	Complete response

Conclusions

ALA-PDT is safe and effective for recalcitrant cutaneous warts, adequate pretreatment, proper interval and good patient compliance are important. Plantar warts with need more treatments.

Abstract N°: ID-1060

Topic: Photobiology, photoallergy and phototherapy

Phototherapy-Induced Anetoderma: A Rare Complication Not to Be Overlooked

Iness Komat[1], Nadia Lahmamsi[1], Nohaila Hanine[1], Zineb Diouri[1], Soumaya Chiheb[1, 2], Fatima-Zahra Agharbi*[1]

[1]Cheikh Khalifa Hospital, Casablanca, Morocco
[2]Ibn Rochd University Hospital, Casablanca, Morocco

Introduction

Anetoderma is a rare dermatosis marked by focal loss of dermal elastic fibers, causing localized cutaneous atrophy. It may be primary or secondary to inflammatory, infectious, or iatrogenic processes. Phototherapy, widely used for chronic inflammatory dermatoses, can induce structural changes in dermal elastic tissue. However, its association with anetoderma remains exceptional and rarely reported. We report a case of anetoderma occurring after phototherapy sessions.

Materials and Methods

A 54-year-old female patient with a history of type 2 diabetes mellitus initially presented with diffuse, pruritic, erythematous-squamous plaques that had been evolving over several months. Histopathological examination of the skin supported a diagnosis of parapsoriasis.

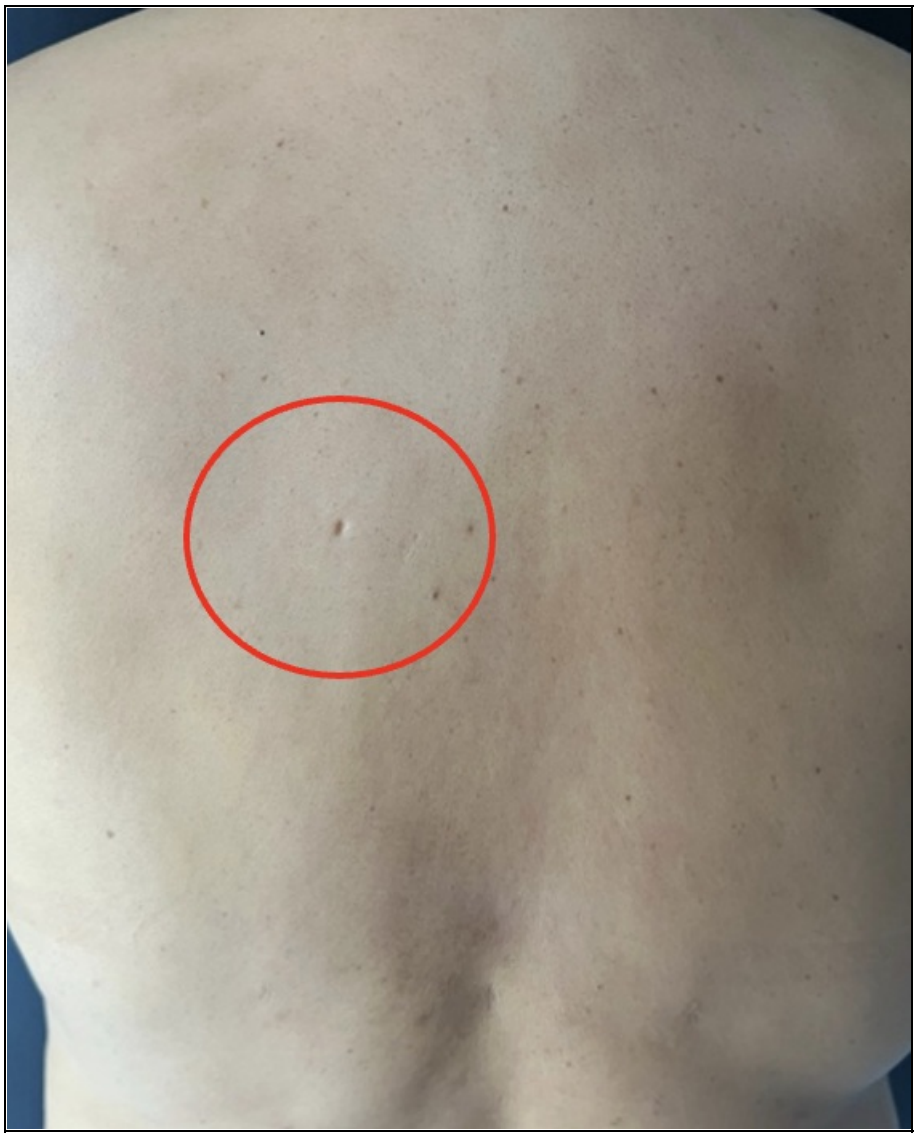
However, due to ongoing diagnostic uncertainty about early mycosis fungoides, an extension workup was done to exclude it. Thoraco-abdomino-pelvic CT showed no abnormalities, and labs—including CBC, plasma protein electrophoresis, LDH, and beta-2 microglobulin—were normal.

Therapeutic management combining topical corticosteroids and UVB phototherapy administered three times per week was initiated, resulting in notable clinical improvement of the initial lesions.

After ten sessions of phototherapy, the patient developed new atrophic cutaneous lesions, predominantly on the back and upper limbs. Clinically, these lesions appeared as thinned, slightly depressed, skin-colored patches with well-defined borders.

A skin biopsy of the atrophic lesions revealed an epidermis of irregular thickness, slightly atrophic, associated with marked fragmentation and reduction of dermal elastic fibers, along with a lymphocyte-predominant inflammatory infiltrate.

Based on the combined clinical and histopathological findings, a diagnosis of secondary anetoderma induced by UVB phototherapy was established.



Results

Phototherapy is a cornerstone in managing many chronic inflammatory dermatoses, including parapsoriasis. However, its long-term cutaneous effects, especially on the dermal extracellular matrix, are well documented. Repeated ultraviolet (UV) exposure induces structural dermal changes, notably collagen degradation and fragmentation with loss of elastic fibers. These changes may persist for months after treatment, reflecting lasting effects on dermal architecture .

Anetoderma is histologically defined by focal loss of dermal elastic fibers, clinically presenting as atrophic, flaccid, or depressible skin areas. The secondary form is typically linked to inflammatory, infectious, or iatrogenic processes, suggesting local inflammation drives elastolysis. Cases of secondary anetoderma have been reported in inflammatory dermatoses treated with phototherapy, especially generalized granuloma annulare. It usually appears at prior inflammatory sites, suggesting localized elastolysis possibly enhanced by UV exposure.

In contrast, here the anetodermic lesions developed independently of parapsoriasis plaques, without overlap or topographic concordance, making a direct link to the initial dermatosis unlikely. This spatial dissociation suggests a different mechanism not driven by persistent local inflammation.

Anetoderma from prolonged topical corticosteroids was also considered, since they can cause cutaneous atrophy, but excluded because lesions did not match application sites.

Thus, UVB phototherapy appears the most likely cause. UV radiation can induce dermal elastolysis via macrophage activation, increased matrix metalloproteinases, and oxidative stress, degrading elastic fibers even in clinically normal skin. In this case, anetoderma seems more related to UVB effects than to parapsoriasis itself, which only indicated phototherapy.

Conclusions

Although phototherapy-induced anetoderma is exceptional, this case highlights the potential deleterious effects of UVB on the dermal matrix and underscores the need for regular monitoring of patients undergoing prolonged phototherapy, even without active inflammatory lesions at affected sites.

Abstract N°: ID-1106

Topic: Photobiology, photoallergy and phototherapy

Phototherapy in pediatric dermatology: a retrospective descriptive study from a North African center

Ghita Mikou*[1], Bouchra Baghad[1], Fatima Zahra Benhayoun[1], Hanane Rachadi[1], Soumiya Chiheb[1]

[1]Hôpital Ibn Rochd, Casablanca, Morocco

Introduction

Phototherapy is an effective and well-tolerated treatment for several inflammatory and pigmentary dermatoses in children, including psoriasis, vitiligo, and cutaneous T-cell lymphoma. However, data on pediatric phototherapy from African and North African settings remain scarce. Evaluating local practices and outcomes is essential to optimize care and contribute to global evidence.

Materials and Methods

A retrospective descriptive study was conducted over a two-year period (2023–2025). All children under 18 years of age who received phototherapy for dermatological indications during the study period were included. Collected data comprised demographic characteristics (age and sex), clinical indications, type of phototherapy, treatment protocols, number of sessions, cumulative ultraviolet dose, treatment tolerance, and clinical response.

Phototherapy modalities included narrowband ultraviolet B (NB-UVB), balneophototherapy, and targeted phototherapy when indicated. Tolerance was assessed clinically at each session, and adverse events were recorded. Clinical response was evaluated by the treating dermatologist based on improvement of cutaneous lesions. Data were analyzed using descriptive statistics.

Results

Fifty-one children were included, comprising 30 boys (58.8%) and 21 girls (41.2%), with a sex ratio of 1.43. The mean age was 10 years. Indications for phototherapy included inflammatory and pigmentary dermatoses, with psoriasis and vitiligo being the most frequent. Narrowband ultraviolet B (NB-UVB) phototherapy was the predominant modality, used in 84.3% of patients, while balneophototherapy accounted for 15.7%.

The number of sessions ranged from 2 to 56, with cumulative doses between 0.28 and 57.63 J/cm^2. Overall tolerance was good. Mild erythema was reported in five cases, with no severe adverse events observed. Transient urinary symptoms were noted in five patients, and anxiety episodes in three, without treatment discontinuation. Practical challenges included geographic distance, school constraints, and socioeconomic factors. Clinical improvement was observed in the majority of patients across indications.

Representative cases illustrated favorable outcomes in pediatric psoriasis, vitiligo treated with targeted phototherapy, and early-stage cutaneous T-cell lymphoma, with good tolerance and meaningful clinical response.

Conclusions

Phototherapy, particularly NB-UVB, appears to be a feasible, effective, and well-tolerated therapeutic option in pediatric dermatology. Cumulative doses were consistent with published data, and no serious adverse effects were recorded. Given the limited African data available, this study provides valuable real-world insight and supports the safe use of

phototherapy in children. Prospective multicenter studies and long-term follow-up are warranted to further standardize pediatric phototherapy protocols.