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Unilateral nevoid acanthosis nigricans treated with CO_2 laser

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DESCRIPTION

Acanthosis nigricans (AN) can be classified into eight variants, including the benign, obesity associated, syndromic, malignant, acral, unilateral, medication induced and mixed type.[1] Unilateral nevoid AN (UNAN) is an extremely rare form of AN and may be localised as a solitary lesion or along the Blaschko's lines.[2] It is not associated with syndromes, endocrinopathies, drugs or malignancies. Various treatments have been described, including retinoids, calcipotriol, fish oil, ammonium lactate cream, cryotherapy, dermabrasion, excision (if small lesion) and long-pulse alexandrite laser treatment, with variable results.[3]

We report the case of a 9-year-old girl presenting to our department with asymptomatic, velvety, thickened orange-brown plaques distributed in an arciform pattern along the right scapular region (figure 1A). Her skin lesions appeared at the age of 5 years without any erythematous component, and these slowly increased in size over a 5-year period. Her familial and medical histories were unremarkable. No triggering factor was reported. Histological examination revealed hyperkeratosis, papillomatosis and moderate acanthosis of the epidermis. Based on the clinical and histopathological features, a diagnosis of unilateral nevoid AN was made.

We performed two cycles of pulsed CO_2 laser (2.6 J/cm^2), with a 2-month interval between sessions. After 14 months of follow-up, she presents with cicatricial plaques that have gradually disappeared and the final cosmetic result is considered as very satisfactory by the parents (figure 1B).

To the best of our knowledge, this is the only case of UNAN successfully treated with CO_2 laser. Since no randomised controlled trials exist, we believe this treatment modality should be considered as an option.

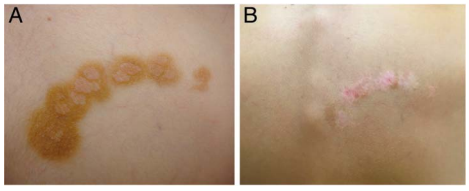

Figure 1 (A) Polycyclic velvety thickened orange-brown plaques distributed in an arciform pattern along the right scapular region. (B) Cicatricial plaques 14 months after the last CO_2 laser treatment.

Learning points

- Unilateral nevoid acanthosis nigricans is an extremely rare form of acanthosis nigricans that is not associated with syndromes, endocrinopathies, drugs or malignancies.
- Various treatments have been described with variable results.
- Although not described in the literature, pulsed CO_2 laser should be considered as a treatment option.

Competing interests None declared.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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