



OPEN ACCESS

Unilateral nevoid acanthosis nigricans treated with CO₂ laser

Manuel António Campos,¹ Paulo Varela,¹ Armando Baptista,¹ Eduarda Osório Ferreira²

¹Department of Dermatology, Centro Hospitalar de Vila Nova de Gaia/Espinho, Vila Nova de Gaia, Porto, Portugal

²Centro Hospitalar Vila Nova de Gaia e Espinho, Vila Nova de Gaia, Portugal

Correspondence to

Dr Manuel António Campos, manuelantoniooccampos@gmail.com

Accepted 11 May 2016

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 CO₂ laser (2.6 J/cm²), 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 CO₂ laser. Since no randomised controlled trials exist, we believe this treatment modality should be considered as an option.

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 CO₂ laser should be considered as a treatment option.

Competing interests None declared.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

Open Access This is an Open Access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited and the use is non-commercial. See: <http://creativecommons.org/licenses/by-nc/4.0/>

REFERENCES

- 1 Schwartz RA. Acanthosis nigricans. *J Am Acad Dermatol* 1994;31:1–19; quiz 20–2.
- 2 Ersoy-Evans S, Sahin S, Mancini AJ, et al. The acanthosis nigricans form of epidermal nevus. *J Am Acad Dermatol* 2006;55:696–8.
- 3 Krishnam AS. Unilateral nevoid acanthosis nigricans. *Int J Dermatol* 1991;30:452–3.



CrossMark

To cite: Campos MA, Varela P, Baptista A, et al. *BMJ Case Rep* Published online: [please include Day Month Year] doi:10.1136/bcr-2016-216073

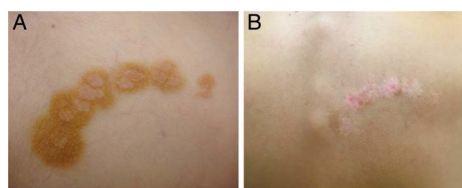


Figure 1 (A) Polycyclic velvety thickened orange-brown plaques distributed in an arciform pattern along the right scapular region. (B) Cicatricial plaques 14 months after the last CO₂ laser treatment.

Copyright 2016 BMJ Publishing Group. All rights reserved. For permission to reuse any of this content visit <http://group.bmj.com/group/rights-licensing/permissions>. BMJ Case Report Fellows may re-use this article for personal use and teaching without any further permission.

Become a Fellow of BMJ Case Reports today and you can:

- ▶ Submit as many cases as you like
- ▶ Enjoy fast sympathetic peer review and rapid publication of accepted articles
- ▶ Access all the published articles
- ▶ Re-use any of the published material for personal use and teaching without further permission

For information on Institutional Fellowships contact consortiasales@bmjgroup.com

Visit casereports.bmj.com for more articles like this and to become a Fellow