Case for diagnosis*

Daniela Tiemi Sano[1]
Antonio José Tebcherani[1]
Luciana Valentini de Melo[1]
Ana Paula Galli Sanchez[1]

DOI: http://dx.doi.org/10.1590/abd1806-4841.20143152

CASE REPORT

Thirty-one year old, white female presented multiple round, brilliant, asymptomatic normochromic, hyperkeratotic papules, measuring approximately 1-2 mm in diameter, on the transition area between the ventral and dorsal surfaces of the hands (Figure 1). She reported the appearance of lesions during adolescence, not associated with trauma, and with progressive increase in number. She cited similar cases in her family (cousin and sister). An excisional biopsy was performed for diagnostic confirmation on a papule on the right hand. Histological exam, stained with hematoxylin eosin showed marked compact hyperorthokeratosis, over an indentation of the epidermal border, which appeared thickened (Figure 2). Verhoeff staining (for elastic fibers) did not show any alterations on the dermis fiber structure (Figure 3).

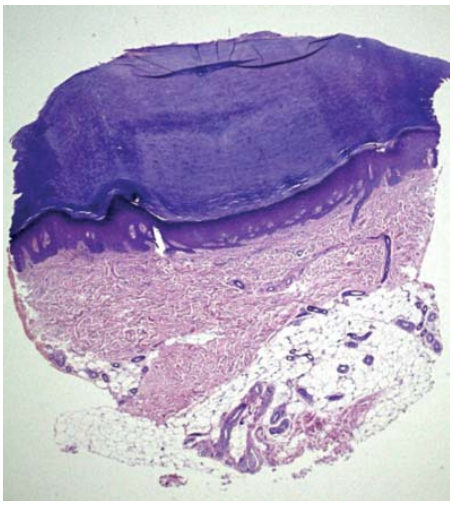

FIGURE 2: HE 40x. Panoramic vision evidencing marked compact hyperorthokeratosis

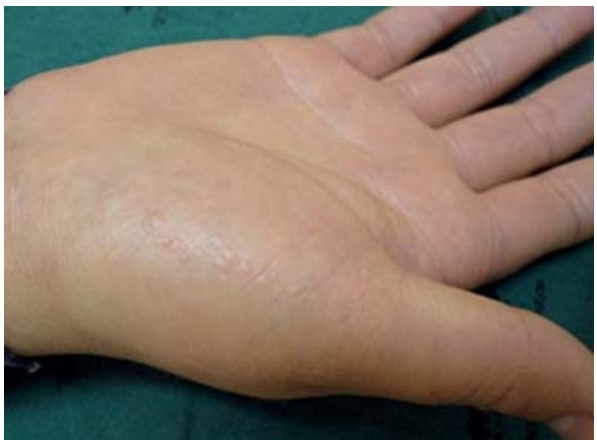

FIGURE 1: Multiple normochromic hyperkeratotic, brilliant, oval papules, with approximately 1-2 mm in diameter, on the transitional area between dorsal and ventral hand surfaces

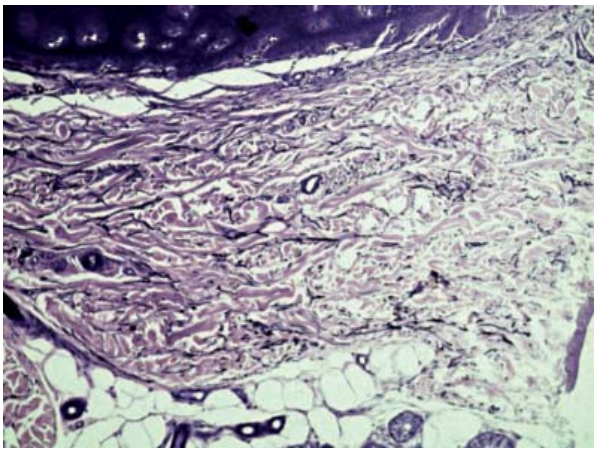

FIGURE 3: Verhoeff 200x. Staining for elastic fibers (in black) demonstrating the intact elastic fiber frame in the dermis

Received on 18.09.2013.
Approved by the Advisory Board and accepted for publication on 27.10.2013.
* Work performed at Padre Bento of Guarulhos Hospital Complex (CHPBG) – Guarulhos (SP), Brazil.
Conflict of interest: None
Financial funding: None

[1] Padre Bento of Guarulhos Hospital Complex (CHPBG) – Guarulhos (SP), Brazil.

DISCUSSION

The diagnosis of focal acral hyperkeratosis was made in face of the clinical and anatomopathological findings.

Focal acral hyperkeratosis is a rare clinical variant of marginal acrokeratodermas, which are characterized by keratotic lesions on the borders or transition areas of palmoplantar regions. Marginal acrokeratodermas can be hereditary either with or without elastorrhexis (alterations in the elastic fibers) or acquired, with focal acral hyperkeratosis being an autosomal dominant hereditary form (although sporadic cases may occur) without elastorrhexis. It is more frequent among African-Americans, and it usually appears between 20 and 30 years of age.[1,2,3]

It is characterized by the appearance of oval or polygonal, sometimes umbilicated and brilliant, keratotic papules, located on the borders of hands and feet. Some papules may coalesce forming plaques. Usually lesions are asymptomatic and present slow and progressive growth. It may be associated to hyperhidrosis.[3,4,5]

Clinically, focal acral hyperkeratosis is similar to acrokeratoelastoidosis of Costa, with diagnosis defined by anatomopathological examination. Focal acral hyperkeratosis, unlike acrokeratoelastoidosis of Costa presents histopathological alterations limited to the epidermis (hyperkeratosis and acanthosis), absence of elastic fiber disorders (elastorrhexis) in the reticular dermis and normal collagen fibers, besides not being associated with local trauma.[6,7] Other differential diagnosis include plane warts, acrokeratosis verruciformis of Hopf, colloid milium, degenerative colloid plaque of the hands and xanthomatous eruption.[2,5]

Since the lesions are asymptomatic and are not associated with malignancies or morbidities, no treatment is necessary. Nevertheless, due to aesthetic reasons, several therapeutic options are suggested in the literature, such as cryotherapy with liquid nitrogen, use of topical exfoliants (salicylic acid, lactic acid, urea and tretinoin) as well as treatment with acitretin.[1,2,7]

We reported the case of a patient presenting clinical and anatomopathological features typical of focal acral hyperkeratosis, with anatomopathological examination as an important tool to define diagnosis. Our patient continues on clinical follow-up, using emollients and topical exfoliants. ❑

Abstract: Focal acral hyperkeratosis is a rare genodermatosis with an autosomal dominant pattern of inheritance. It is characterized by usually asymptomatic keratotic papules along the borders of the hands and/or feet. The main differential diagnosis is acrokeratoelastoidosis of Costa, which differs from the former only by not presenting elastorrhexis in histopathological examination, thus requiring this exam for a correct diagnosis.
Keywords: Biopsy; Hand Dermatoses; Keratoderma, Palmoplantar; Keratosis

REFERENCES

1. Natow S. Focal Acral Hyperkeratosis. Dermatol Online J. 2001;7:10.
2. Zanini M. Focal acral hyperkeratosis: case report and discussion on marginal keratodermas An Bras Dermatol. 2006;81:S293-6.
3. Kelsell DP, Leigh IM. Ceratodermias Herditárias das Palmas e Solas. In: Wolff K, Goldsmith LA, Katz SI, Gilchrest BA, Paller AS, Leffell DJ, eds. Fitzpatrick Tratado de Dermatologia. 7 ed. Rio de Janeiro: RevinterLtda; 2011. p. 429.
4. Krol AL. Queratodermias. In: Bolognia JL, Jorizzo JL, Rapini RP, eds. Dermatologia. Dermatologia. 2 ed. Rio de Janeiro: Elsevier; 2011. p.788.
5. Martínez-Casimiro L, Zaragoza V, Sánchez-Carazo JL, Alegre V. Hyperkeratotic Papules on the Hands. Actas Dermosifiliogr. 2009;100:73-4.
6. Lee EA, Kim HS, Kim HO, Park YM. A Case of focal acral hyperkeratosis. Ann Dermatol. 2009;21:426-8.
7. Cunha Filho RR, Almeida Jr HL. Focal acral hyperkeratosis with hypochromic dermatoglyphics. An Bras Dermatol. 2008;83:441-3.

MAILING ADDRESS:
Daniela Tiemi Sano.
Secretaria da Dermatologia.
Av. Emílio Ribas,1819.
Bairro Gopouva.
07051-000 - Guarulhos - SP
Brazil
E-mail: danitsano@yahoo.com.br

How to cite this article: Sano DT, Melo LV, Tebcherani AJ, Sanchez APG Case for diagnosis. Focal acral hyperkeratosis. An Bras Dermatol. 2014;89(5):835-6.