Confluent and reticulate papillomatosis (Gougerot-Carteaud)

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SUMMARY

A 17 year-old girl with the diagnosis of confluent and reticulate papillomatosis (CRP) is presented. Clinical and histiopathologic differential diagnostic considerations as well as the pathogenesis of CRP are discussed.

Introduction

Confluent and reticulate papillomatosis (CRP) was first described by Gougerot and Carteaud in 1927 (1). It consists of grayish-brown pigmented papules that later coalesce, most often localized in the intermammary and interscapular regions, neck and abdomen. It usually starts after puberty, primarily in females (2). The etiology remains unclear but many observations are in favor of the role of *Pityrosporum orbiculare* in CRP (3). A case of confluent and reticulated papillomatosis responding to treatment with minocycline is reported.

Case report

A 17-year-old girl with asymptomatic, brownish, papules that coalesced into sharply circumscribed plaques in the nuchal and interscapular region was admitted to our Department (Figure 1). Similar skin lesions were found to a smaller extent in the sternal region. The first clinical diagnosis was atypical pityriasis versicolor; further differential diagnosis included acanthosis nigricans.

Histopathogy of a biopsy specimen from the nuchal region showed basket-wave hyperkeratosis, acanthosis and papillomatosis and a sparse, predominantly lymphocytic infiltrate around the superficial vascular plexus (Figure 2a). Closer scrutiny revealed foci of numerous small spores in the cornified layer clearly visible already with hematoxylin-eosin staining (Figure 2b). The most probable histopathologic diagnosis was seborrhoic keratosis; further differential diagnosis considerations were acanthosis nigricans and epidermal nevus. However, all these histopathological differential diagnoses were not consonant with the clinical diagnosis provided on the case report slip, namely, atypical pityriasis versicolor.

Further investigations:

The mycological examination from the nuchal region revealed numerous spores but no hyphae thus

KEY WORDS

confluent and reticulate papillomatosis, Pityrosporum orbiculare, pityriasis versicolor, tetracyclines

ruling out pityriasis versicolor, because microscopy of the scales of pityriasis versicolor always reveals thick-walled spherical yeast forms and coarse septate mycelium often broken up into short filaments. Also, PAS-staining of the biopsy specimen revealed spores but no hyphae within the cornified layer. So, the diagnosis confluent and reticulated papillomatosis Gougerot-Carteaud (CRP) was made.

Previous treatment with antifungal agents was ineffective. Thus, treatment with minocycline (100mg/daily) was started. The patient experienced significant improvement after 3 weeks and 6 weeks later her skin was completely clear.

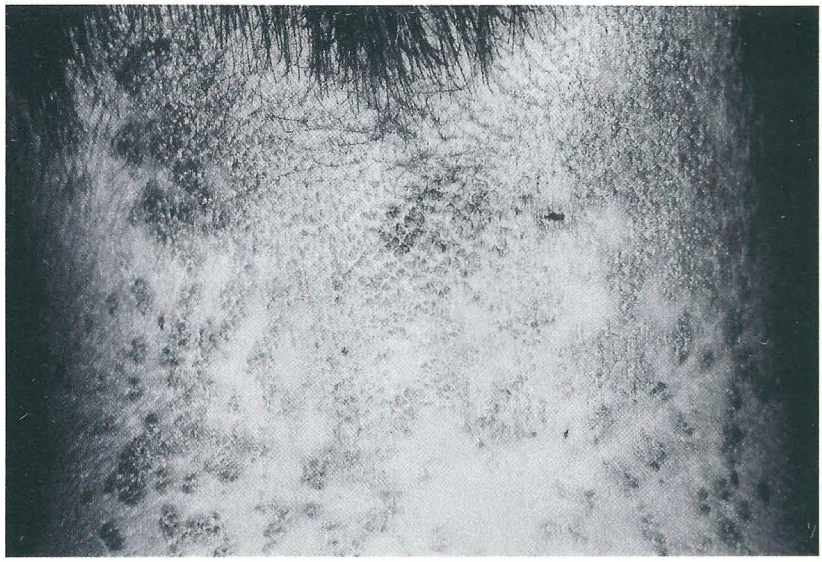

Fig. 1. Confluent and reticulated papillomatosis in the nuchal region of a 17-year-old girl.

Discussion

The diagnosis of CRP in our patient has been established by the typical clinical aspect, namely slightly verrucous brownish papules and confluent plaques in the nuchal and interscapular region in addition to the histopathologic findings – basket-wave hyperkeratosis, acanthosis and papillomatosis and cluster of spores in the cornified layer. So, CRP is a typical example in which the definite diagnosis is achieved by clinico-pathologic correlation. Based on a review of 48 cases reported in the literature from 1978 to 1992 Lee et al. defined CRP by the following criteria: i) hyperpigmented papules and plaques involving at least the central portion of the chest or back with central confluence and peripheral reticulation; ii) no hyphae demonstrable, either by performing mycological examination or by conventional light microscopy of a biopsy specimen; and iii) basket-wave hyperkeratosis, acanthosis and papillomatosis and a sparse, superficial perivascular infiltrate histopathologically (4).

The most probable clinical diagnosis in our patient was pityriasis versicolor. The diagnosis of pityriasis versicolor, however, as a rule, is based on the mycological examination revealing spherical, thick-walled spores and hyphae that are often fragmented to short filaments. Histopathologically, in pityriasis versicolor the prominent basket-wave stratum corneum is situated above a rather normal epidermis. Also, in pityriasis versicolor short hyphae are always present together with spores in the cornified layer. Therefore, the clinical diagnosis of pityriasis versicolor in our patient has been excluded by the mycological and histopathologic examination.

The exact pathogenesis of CRP remains unknown. On the one hand it was thought that CRP represents an abnormal host reaction to Pityrosporum orbiculare (ovale) and therefore treatment with topical and systemic antifungal agents is carried out with variable success. The mechanism by which the Pityrosporum

Fig. 2a. Hyperkeratosis, acanthosis and papillomatosis and a sparse lymphocytic infiltrate arround the superficial vascular plexus (Hematoxylin-eosin stain< x 100).

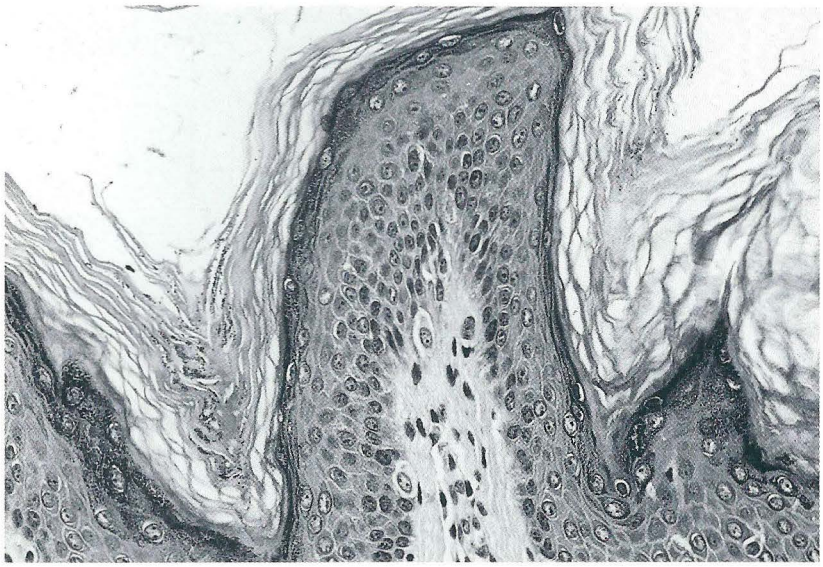

Fig. 2b. Small spores in the cornified layer (Hematoxylin-eosin stain< x 250)

yeasts induce the skin changes are not known (3). Direct lipase activity or antibody-mediated epidermal damage are discussed. On the other hand CRP is regarded as a benign disorder of keratinization and thus drugs with an "antikeratinizing effect" such as retinoids have been used more or less effectively to clear this condition (5). Our patient was successfully treated with minocycline (100mg/die over 6 weeks). The basis for the efficacy of minocycline is uncertain. This agent is effective against gram-positive and gram-negative bacteria and some mycobacteria, suggesting that a yet unknown bacterium plays a role in the pathogenesis of CRP.

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