Confluent and reticulated papillomatosis of Gougerot–Carteaud in a North African patient

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Abstract
Confluent and reticulated papillomatosis (CRP) is an underdiagnosed skin condition of uncertain etiology. The antibacterial and most importantly the anti-inflammatory mechanisms of some antibiotics seem to explain the effectiveness of these medications. Other measures such as reducing weight and treating an underlying endocrine disorder may be helpful.

KEYWORDS
clinical dermatology, keratinization disorders, rare diseases, treatment

1 | INTRODUCTION

Confluent and reticulated papillomatosis (CRP) is an acquired keratinization disorder of uncertain etiology.¹ The disease was first described in the French literature in the early 20th century by Gougerot and Carteaud and is also known as Gougerot–Carteaud syndrome.² CRP is reported to occur in different ethnic groups and geographic regions.¹ Herein, we report a case of CRP in a North African patient.

2 | OBSERVATION

An otherwise healthy, 30-year-old man, presented with a non-pruritic hyperpigmented skin lesions of the trunk. At the time of presentation, the eruption has been present for 3 years and different antifungal treatments were ineffective. Upon physical examination, we noted brown to hyperpigmented hyperkeratotic macules and papules on the center of the upper trunk that coalesce into reticulated plaques in the periphery of the chest and in the axillary region (Figure 1). Wood’s lamp examination was negative for yellowish-green fluorescence, and fungal staining was negative for fungus. Histological examination showed ortho-hyperkeratosis, papillomatosis, and focal acanthosis. The patient was treated with doxycycline 100 mg twice daily with a complete remission after 4 weeks (Figure 2). No recurrence was noted within 2 months of follow-up.

3 | DISCUSSION

Confluent and reticulated papillomatosis is an underdiagnosed skin condition first described in 1927.² It is asymptomatic in most cases but can be pruritic.¹ In 2006, Davis et al proposed five criteria for the diagnosis of the disease: (1) Presence of a rash with peripheral reticulations, (2) involvement of upper trunk and neck, (3) negative fungal staining, (4) absence of a response to antifungal treatment, and (5) positive response to cyclines.³ All these criteria were displayed by our patient.
Confluent and reticulated papillomatosis has an uncertain etiology. The currently accepted theory is that CRP is related to a bacteria: *Dietzia spp* (anaerobic gram-positive coccus, order of actinomycete).\(^1\) Noninfectious causes of CRP have been suggested but seem less likely, including endocrine disorders especially insulin resistance explained by the pro-mitotic and anti-apoptotic effects of hyperinsulinemia. In this context, obesity can be incriminated in CRP by the metabolic disorder and insulin resistance that it causes.\(^4\) Reaction to UV light and a variant of cutaneous amyloidosis have also been suggested.\(^1,5\) Our patient was not obese and did not have diabetes. The rash was located on a covered area, and histology did not show amyloid deposits upon Congo red coloration.

Oral minocycline 50-100 mg twice daily is the first-line treatment.\(^3\) Recent reports of the efficiency of macrolides may make these antibiotics the preferred treatment for CRP, as they are safer than minocycline.\(^5\) These medications are effective because they are antibacterial but most importantly anti-inflammatory.\(^3\) Systemic retinoids were previously used because of their keratoregulatory effect but have now given way to safer treatments like minocycline and azithromycin.\(^6-8\) Lately, Ozdemir et al reported the effectiveness of oral contraceptives that contain progesterone in the treatment of CRP in a patient with polycystic ovarian syndrome.\(^9\) More recently, Krishnamoorthy et al described a case of CRP that started to resolve immediately after bariatric surgery.\(^4\) These observations strengthen the hypothesis of the hormonal and metabolic factor in the genesis of CRP.

### 4 | CONCLUSION

Much remains to be clarified about the pathogenesis of CRP. Bacterial proliferation and endocrine factors may have synergistic contributions to the development of CRP. Treatment is therefore based on antibiotics but other measures such as reducing weight, screening for endocrine disorders, and treating them may be useful.

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### CONFLICT OF INTERESTS

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### AUTHOR CONTRIBUTION

Dorsaf Elinkichari is the guarantor of the content of the manuscript, including the data and analysis. Kahena Jaber contributed to acquisition of data, conception, and interpretation of information, revised it critically for important intellectual content, and gave final approval of the version to be submitted. Faten Rabhi revised data critically for important intellectual content. Mohamed Raouf Dhaoui contributed to interpretation of data and revision of the manuscript.

### ETHICAL APPROVAL

Written informed consent was obtained from the patient.

### CONSENT

The patient has given written informed consent to the publication of his case details.

### DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.
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