Case Report
Olgu Sunumu
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Gougerot-Carteaud syndrome treated with acitretin: A case report

Asitretinle tedavi edilen bir Gougerot-Carteaud sendromu: Olgu sunumu

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Abstract

Gougerot-Carteaud syndrome (GCS) is a rarely seen dermatosis characterized by reticular and pigmented plaques with a tendency to merge with each other in areas such as the neck, upper body, and axilla in young adults. A 20-year-old male patient presented to the dermatology outpatient clinic with the complaints of itching and brown patches affecting the trunk, back and the neck. He had no endocrine diseases and used no drugs. Dermatological examination revealed reticulated, hyperpigmented, verrucous papules and plaques on the anterior surface of his trunk, upper back, and neck region. No fungal elements were encountered in the potassium hydroxide examination. Histopathologically, basket-like hyperkeratosis, papillomatosis, mild acanthosis, and hyperpigmentation in the basal layer were detected. Minocycline treatment was initiated at a dose of 100 mg/daily. At the three-month follow-up visit, minocycline treatment was terminated due to lack of clinical response, and 30 mg/day acitretin treatment was initiated. The lesions showed marked improvement except for a slight hyperpigmentation in the first month of the treatment. We report here a case of GCS in which acitretin was started due to clinical unresponsiveness to minocycline treatment and, substantially, a favorable result was obtained in a short time.
Keywords: Gougerot-Carteaud syndrome, confluent and reticulated papillomatosis, acitretin

Öz

Gougerot-Carteaud sendromu (GCS) genç erişkinlerde boyun, üst gövde, aksilla gibi bölgelerde birbiri ile birleşmeye meyilli, retiküler, pigmente plaklarla karakterize nadir bir dermatozdur. Yirmi yaşında erkek hasta gövdesinde ve sırtında kahverengi renk değişikliği ve kaşıntı şikayeti ile başvurdu. Özgeçmişinde endokrinolojik bir hastalığı olmadığı ve herhangi bir ilaç kullanmadığı öğrenildi. Dermatolojik muayenesinde gövde ön ve arka yüzde, boyun bölgesinde hiperpigmente retiküler, verüköz papül ve plaklar mevcuttu. Potasyum hidroksit incelemede mantar elemanlarına rastlanmadı. Histopatolojide sepetsi hiperkeratoz, papillomatoz, hafif akantoz, bazal tabakada hiperpigmentasyon tespit edildi. 100 mg/gün minosiklin tedavisi başlandı. Tedavinin 3. ayında klinik yanıt alınamaması nedeni ile minosiklin tedavisi sonlandırıldı ve 30 mg/gün asitretin tedavisi başlandı. Tedaviye başladıktan 1 ay sonra lezyonların hafif hiperpigmentasyon bırakarak iyileştiği tespit edildi. Biz burada minosikline klinik yanıtsızlık nedeniyle asitretin tedavisi başlanan ve kısa sürede başarılı sonuç alınan bir GCS olgusu sunuyoruz.
Anahtar Kelimeler: Gougerot-Carteaud sendromu, konfluent retiküler papillomatozis, asitretin

Introduction

Gougerot-Carteaud syndrome (GCS) is also known as confluent and reticulated papillomatosis. It is a rarely seen dermatosis characterized by reticular and hyperpigmented plaques with a tendency to merge with each other in areas such as the neck, upper body, and axilla in young adults[1]. The disease has been considered to be an abnormal host defense, which develops against *malassezia furfur, staphylococcus*, or *propionibacterium acnes*. On the other hand, obesity, type 2 diabetes, hirsutism, Cushing's syndrome, menstrual dysfunction, vitamin A deficiency, genetic predisposition, photosensitivity, cutaneous amyloidosis, and keratinization

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disorder have also been blamed[2,3]. The lesions are similar to acanthosis nigricans (AN). The two diseases can be differentiated with some factors such as obesity, as a patient characteristics in AN, the tendency of the lesions to locate in the flexural areas, and with the fact that histopathologically, acanthosis and papillomatosis are marked[4].

Minocycline has been found to be effective in the treatment of GCS due to its antimicrobial and anti-inflammatory activity[5,6]. It has also been reported that isotretinoin and acitretin can be used in the treatment of the disease. On the other hand, since sensitivity to bacterial agents is mentioned, azithromycin, fusidic acid, clarithromycin, and erythromycin have also been reported among the treatment agents[7]. We report here a case of GCS that was unresponsive to minocycline treatment and was healed with acitretin treatment.

Case Report

A 20-year-old male patient presented to the dermatology outpatient clinic with the complaints of itching and brown discoloration on his body and back. It was learned that these complaints were present for the past six months, and he had no endocrine disease and used no drugs. His family history was unremarkable. Dermatological examination revealed reticulated, hyperpigmented, verrucous papules and plaques on the anterior surface of his trunk, upper back, and neck region (Figures 1a, 1b). Laboratory tests were unremarkable. No fungal elements were encountered in the potassium hydroxide examination of a sample from the lesion. Histopathologically, a basket-like hyperkeratosis, papillomatosis, mild acanthosis, hyperpigmentation in the basal layer, and a mild perivascular and chronic inflammatory infiltration were detected (Figure 2). The patient was diagnosed with GCS with those clinical and histopathological findings. Minocycline treatment was initiated at a dose of 100 mg/daily. At the three-month follow-up visit, minocycline treatment was terminated due to lack of clinical response, and 30mg/day acitretin treatment was initiated. The lesions showed marked improvement except for a slight hyperpigmentation in the first month of the treatment (Figure 3a, 3b).

Discussion

Many factors have been blamed in the etiology of the disease and various methods of treatment have been used. The efficacy of minocycline use was particularly emphasized in the literature. Davis et al.[8] classified 39 patients with GCS according to the treatment in their retrospective study. They found that 22 patients were treated with minocycline and 78% of these patients had complete resolution. They reported that other types of treatment were antifungal agents, isotretinoin, and topical tretinoin and topical salicylic acid; the response to those treatment agents was even lesser and also spontaneous resolution was detected in two years. However, no clinical response was obtained in the three-month minocycline treatment in our patient. The presence of papillomatosis, acanthosis, and hyperkeratosis in the histopathological view and the association of the disease with vitamin A deficiency and keratinization defects have precipitated the use of retinoic acids in the treatment of the disease. Hence, Lee et al.[9] considered the etiology to be a keratinization disorder rather than a fungal infection, and reported a patient in whom a treatment response was obtained with high-dose retinoic acid. From this point of view, the treatment in the patient presented here was started with acitretin 30 mg/daily. At the first month follow-up visit, the lesions on his back and anterior trunk were seen to be healed. Similar to our results, Carlin et al.[10] administered minocycline for six months in a 15-year-old male patient with GCS. However, they started systemic isotretinoin treatment

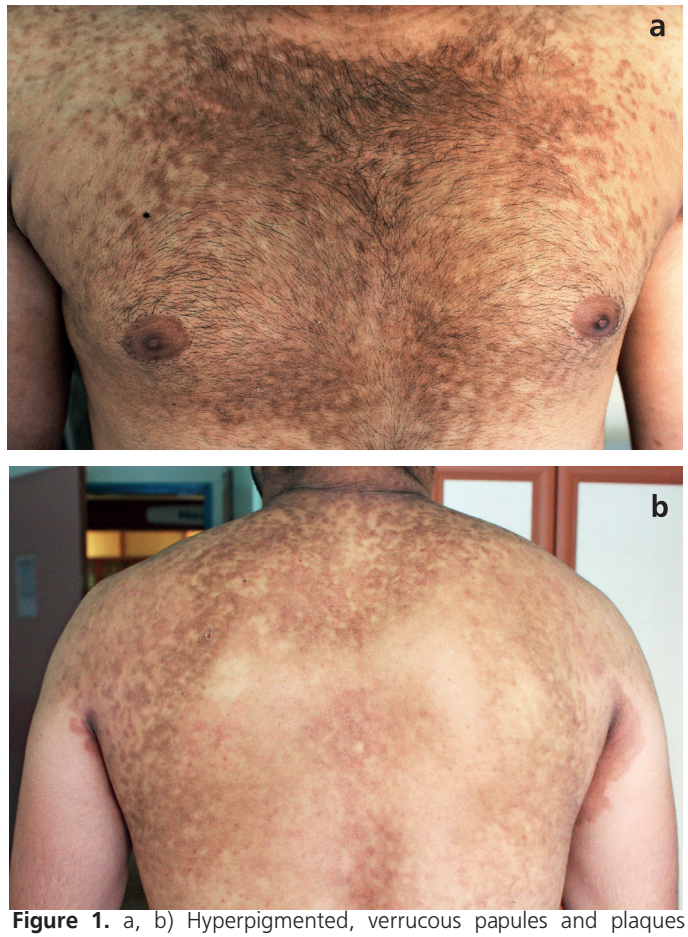

Figure 1. a, b) Hyperpigmented, verrucous papules and plaques reticular in design in the anterior surface of his trunk, upper back, and neck region

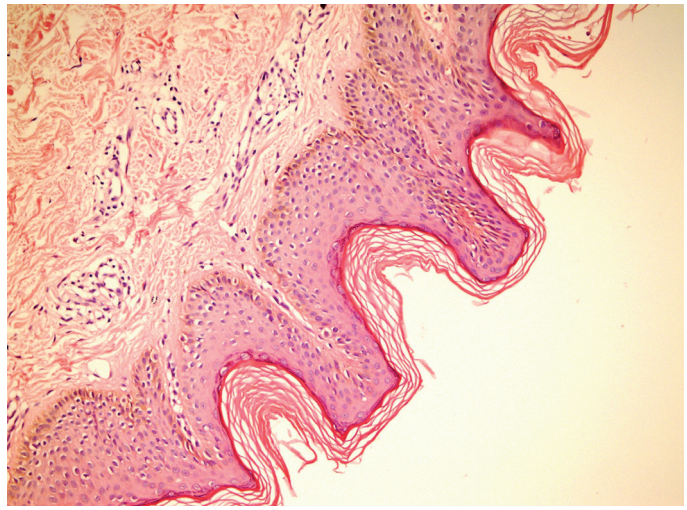

Figure 2. A basket-like hyperkeratosis, papillomatosis, mild acanthosis, hyperpigmentation in the basal layer, and a mild perivascular and chronic inflammatory infiltration (hematoxylin&eosin x200)

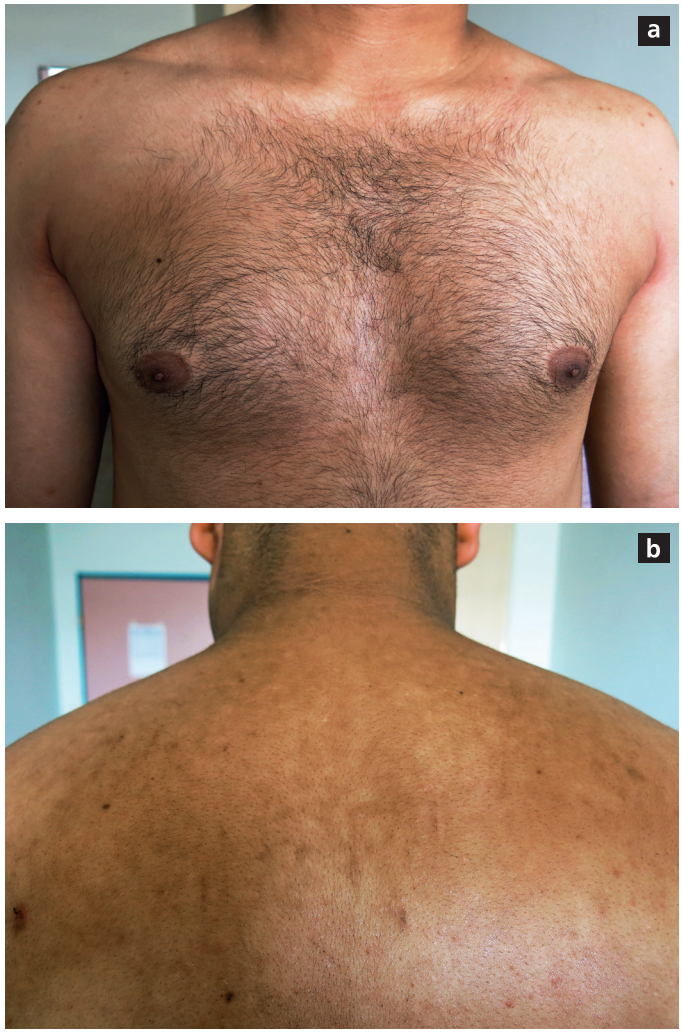

Figure 3. a, b) A slight hyperpigmentation in the anterior surface of his trunk, upper back, and neck region after treatment

at a dose of 1 mg/kg due to the unresponsiveness to treatment and reported that the clinical response to systemic isotretinoin was excellent after four months. Topical retinoic acids have also been found to be a successful treatment option[11]. Other agents that can be used in topical treatment of the disease are ketoconazole cream, tazarotene, tacalcitol, and calcipotriol[7]. A patient, who was prescribed a topical antibiotic (mupirocin) to be applied to the biopsy wound after a biopsy was taken with the preliminary diagnosis of GCS, was reported to apply the drug unintentionally to all the lesions and these lesions were reported to be healed in one month[12]. An interesting report in the literature mentioned that the lesions, as in terra firma-forme dermatosis, could be cleaned by wiping with 70% ethyl alcohol[13]. Recently, topical tacrolimus was considered as a possible new option of treatment due to its capacity to modify epidermal proliferation and keratinocyte differentiation[14]. Our patient had not used any topical treatment.

In conclusion, in this patient reported here, acitretin was started due to clinical unresponsiveness to minocycline treatment and a substantially successful result was obtained in a short time, such as one month.

Ethics

Informed Consent: Consent form was filled out by the participant.
Peer-review: Externally peer-reviewed.

Authorship Contributions

Surgical and Medical Practices: S.A., Ö.S.K., Concept: B.D., Design: B.D., D.Ç., Data Collection or Processing: S.A., Ö.S.K., Ö.Ü., Analysis or Interpretation: B.D., Literature Search: B.D., Writing: B.D.
Conflict of Interest: No conflict of interest was declared by the authors.
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