Successful Treatment of Verruca Vulgaris Mimicking Prurigo Nodularis with Acitretin: A Case Report

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Abstract: Diseases of verruca group are skin infections that occur by *human papilloma virus* (HPV) and are characterized by benign epithelial hyperplasia and excess keratin production. Prurigo nodularis is a chronic skin disorder which is characterized with pruritic verrucous papulonodular lesions. There are many of dermatological diseases that can mimic prurigo nodularis in the literature. This case is reported because its raritiy.

Keywords: Verruca vulgaris, Prurigo nodularis, Acitretin.

INTRODUCTION

Diseases of verruca group are skin infections that occur by *human papilloma virus* (HPV) and are characterized by benign epithelial hyperplasia and excess keratin production [1]. Clinical appearance of verruca vulgaris range about the area that presents. There are some types that were described before: vulgaris, filiform and plana. We describe a verruca vulgaris case whose lesions mimic prurigo nodularis and who has been treated with acitretin successfully.

CASE

Fourty seven year old male patient admitted to our clinic because of the pruritic verrucous lesions on his legs and ankles that last for 2 years (Figure **1a**, **b**, **c**). He was seen by several dermatology out-clinics, he had used topical and systemic steroid treatments but his lesions didn't regress. Personal history was unremarkable.

In dermatologic examination, multipl verrucous papulonodular lesions on his lower extremities were detected. A punch biopsy was taken from these lesions with prurigo nodularis, lichen hypertrophicus and tuberculosis verrucosa cutis prediagnosis. PCR and culture for mycobacteria were negative. Biopsy specimen revealed parakeratosis, papillomatosis and dyskeratotic cells which this findings were compatible with prurigo nodularis. Patient's HbsAg result was positive, active hepatitis markers were negative. Gastroenterology department suggested follow-up.

In during time, the patient reported new lesions that occured on his genital region. In his examination, papulles were seen which compatible with condyloma accuminata on his penil area. Because of his lesions that compatible with prurigo nodularis clinically and histopathologically were unresponsive to steroid treatment and occurance of condiloma accuminata, a new biopsy was taken from the lesions of his leg. The specimen was send to Istanbul University, Istanbul Medicine Faculty Microbiology Department. Biopsy specimen revealed digitated epidermal hyperplasia, acanthosis, papillomatosis, compact orthokeratosis, hypergranulosis, dilated tortuous capillaries within the dermal papillae, and vertical tiers of parakeratotic cells with entrapped red blood cells above the tips of the digitations. Polimerase chain reaction (PCR) of specimen was positive for low risk group (6, 11, 42, 43, 44) *human papilloma virüs* DNA. The patient was diagnosed verruca vulgaris mimicking prurigo nodularis and because of multiple and giant lesions, acitretin 25 mg/day treatment had begun. Additionally, cryotherapy and occlusion with vaseline salicylic 20% was applied to small lesions. Liver fonctional tests and blood lipid profile was between normal ranges in every monthly follow-up. All of the lesions were disappeared after 3 months (Figure **2a**, **b**, **c**) and at the time of 2 year follow-up no new lesions appeared.

DISCUSSION

Diseases of verruca group are skin infections that occur by *human papilloma virus* (HPV) and are characterized by benign epithelial hyperplasia and excess keratin production and their incidence is 3-20% [1]. HPV affects terminal differentiated cells on skin and mucous membran. Verruca vulgaris lesions can be bulky, flesh colored or pigmented, ragged, asymptomatic or painful with pressure. Clinical appearance of these lesions can range about the area that presents. They can be vulgaris, filiform, plana or plantar. It can be seen frequently but there are so much

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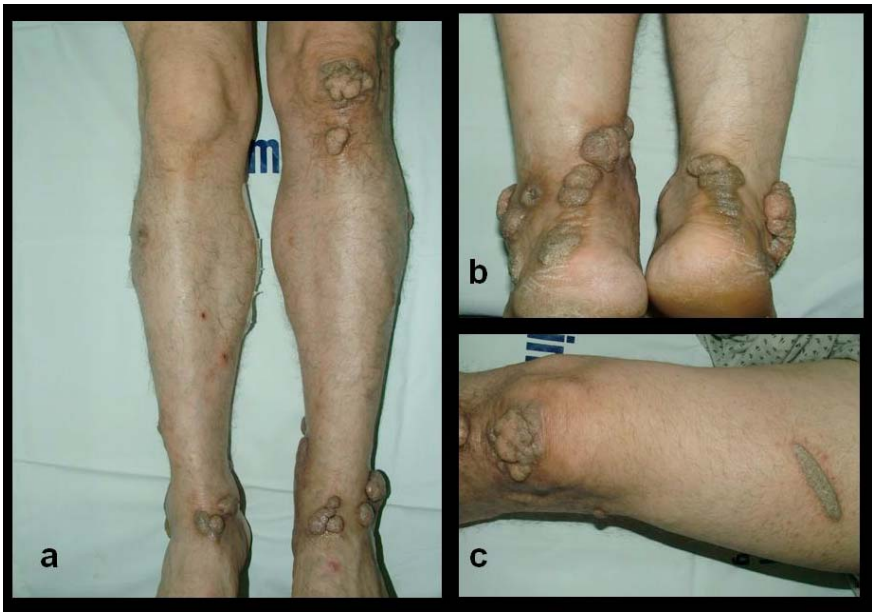

Figure 1: a, **b**, **c**: At the first apperance of verruca lesions mimicking prurigo nodularis.

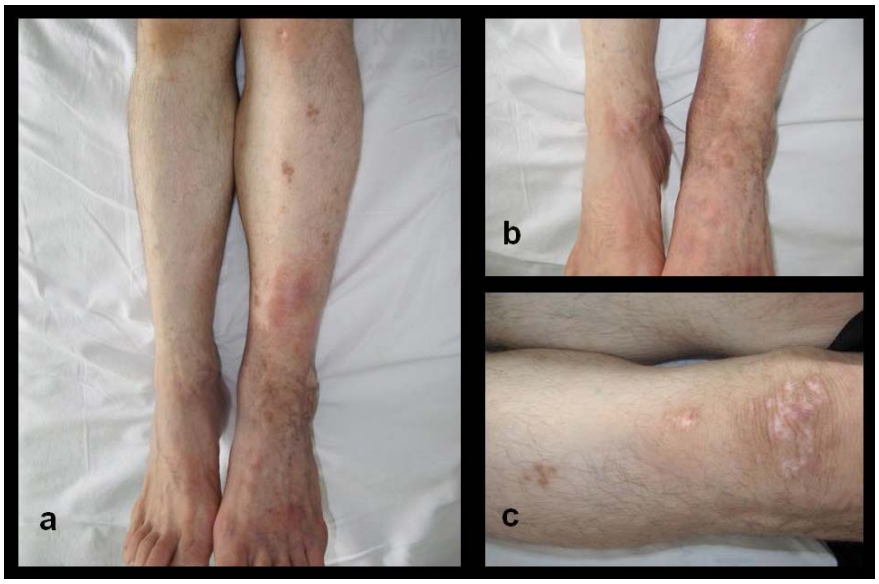

Figure 2: a, **b**, **c**: At the time of 3 months of acitretin treatment, the lesions were regressed completely with postlesional pigmentation.

therapeutic challange. There are lots of therapy options but because of the lack of an antiviral therapy agent, recurrences and relaps may occur.

Prurigo nodularis is a chronic skin disorder which is characterized with pruritic verrucous papulonodular lesions. This lesions can be found especially extansor surfaces of extremities and occur due to neuronal, travmatic and metabolic factors [2]. There are many of dermatological diseases that can mimic prurigo nodularis in the literature. In differantial diagnosis, some infectious disorders like *Mycobacterium tuberculosis* [3], *Mycobacterium marinum* [4], skin mucormycosis [5], *Brusella melitensis* [6], some neoplastic disorders especially subcutaneous panniculitis like lymphoma [7], azathiopurin hipersensitivity [8] and sarcoidosis [9] have been reported. But there is no case report about prurigo nodularis like verruca vulgaris in the literature.

In the treatment of verruca vulgaris with evaluating lesion area, lesion number and lesion characteristic, destructif methods like criyotherapy, electrocoterization or laser, keratolytic agents, podofilin and imiquimod can be used. Retinoids are keratolytic, antiproliferative and antiinflamatuar drugs. Viral replication is due to

keratinocyte differantiation, so acitretin inhibits viral replication. Oral retinoids have been using in the treatment of widespread and resistant verruca vulgaris succesfully and there are many reports about this matter [10]. We report this case because there is no report about prurigo nodularis like verruca vulgaris. Additionally, we emphasize again that acitretin treatment is an effective agent in multiple and resistant verruca vulgaris.

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