Our Dermatology Online

Letter to the Editor

A case of resistant generalized verruca vulgaris treated with systemic isotretinoin

Selami Aykut Temiz[1], Arzu Ataseven[2], Recep Dursun[2], İlkay Ozer[2]

[1]Clinic of Dermatology, Konya Ereğli State Hospital, Konya, Turkey, [2]Department of Dermatology, Necmettin Erbakan University Meram Faculty of Medicine, Konya, Turkey

Corresponding author: Selami Aykut Temiz, MD, E-mail: aykutmd42@gmail.com

Sir,

Verrucae are infections of the human papilloma virus (HPV) associated with the development of epithelial hyperplasia [1]. HPV is thought to be implanted in basal keratinocytes because of the mechanic damage to the skin barrier [2]. Out of the two hundred species of HPV, around twenty cause infection in humans [2,3]. HPV infections are spread worldwide [4]. HPV lesions are more common in immunodeficiencies such as lymphoma, chronic lymphocytic leukemia, AIDS (acquiredimmune deficiency syndrome) and in patients receiving immunosuppressants [5,6]. Although numerous treatments for verrucae exist, none isspecific to HPV. These include both nonsurgical and surgical methods, as well as keratolytic agents (salicylic acid), cryotherapy (liquid nitrogen), and lasers (pulse dye, CO_2, etc.) [1,4-6].

Herein, we report a case of treatment-resistant generalized verruca vulgaris and its excellent response to treatment with systemic isotretinoin.

A 32-year-old male was admitted to our outpatient clinic with warts on the hands, feet, and face persistent for the last nine years. A dermatological examination revealed diffuse verrucous lesions on the dorsum of the hands and feet, the palmar surfaces, the fingers, and the face (Fig. 1).

Previously, the patient underwent cauterization and cryotherapy for a period of three years at another clinic but the lesions continued to develop. Acitretin was used for four months and podophyllin for three months but the lesions did not regress. Similarly, after treatment with interferon alfa-2a at a dose of 4,500,000 IU three times a week for a total of eighteen times systemically and simultaneously, the localized lesions continued to develop and did not regress.

No defects in the immune system were detected, except for hypogammaglobulinemia, which was also detected by an allergy and immunology department. A CXCR4 gene mutation test was performed to consider WHIM syndrome but was negative. Finally, systemic isotretinoin therapy was prescribed. After systemic isotretinoin at a dose of 20 mg/day for twelve months and 10 mg/day for six months, the lesions almost completely regressed (Fig. 2).

After systemic isotretinoin, all verrucae from the body of the patient completely regressed, with only 1–2 pieces smaller than 1 cm remaining. Local treatment with fractionated CO_2 laser was administered to prevent relapse from the remaining foci on the feet. No recurrence was observed during a fourteen-month follow-up period. Informed consent regarding the use of this information in scientific publication was obtained from the patient.

Immunodeficiency states should be investigated if more than twenty verrucous lesions are found in more than one region of the body or if, in the case of acral localization, most of the fingers are affected [6]. Under these conditions, further investigation of the patient ought to be undertaken. Syndromes that a generalized verruca may accompany include Epidermodysplasia verruciformis (EV), WHIM syndrome (warts, hypogammaglobulinemia, immunodeficiency, myelokathexis), WILD syndrome

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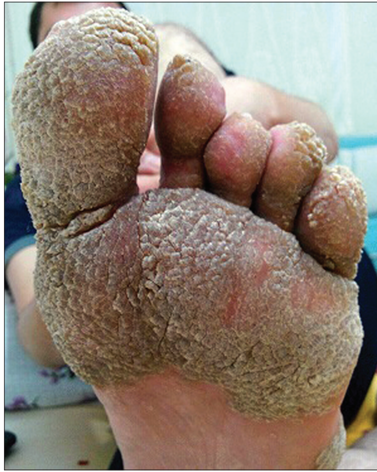

Figure 1: Diffuse verrucous lesions on the palmar surfaces of the feet.

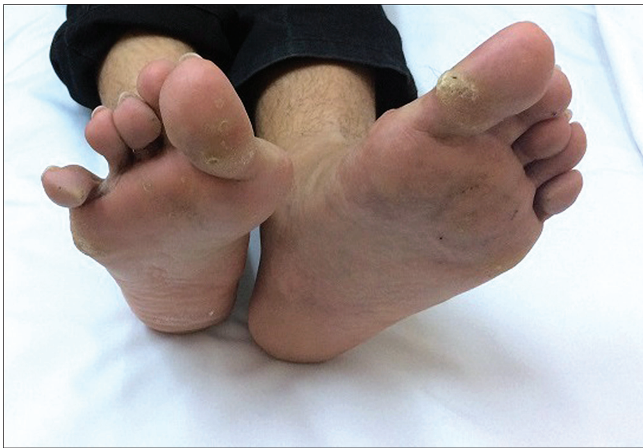

Figure 2: The lesions in almost complete regression.

(warts, immunodeficiency, lymphedema, dysplasia), severe combined immunodeficiency (SCID), hyper IgM syndrome, hyper IgE syndrome, atopic dermatitis, AIDS, and chronic lymphocytic leukemia [4-6].

Methods such as cryotherapy, electrocautery, lasers, and chemical agents (podophyllotoxin, 5-fluorouracil, bleomycin, dichloroacetic acid, formaldehyde, glutaraldehyde, cantharidin, lactic acid, monochloroacetic acid, salicylic acid, trichloroacetic acid, silver nitrate, etc.) are employed in the treatment of verrucae [6]. Immunotherapy methods may be preferred in patients unresponsive to commonly used treatments. Interferon alfa (IFN-α) is used systemically, topically, or intralesionally in the treatment of verrucae [7].

Systemic isotretinoin has been used to treat acne vulgaris for more than thirty years. However, isotretinoin also proves potentially helpful for numerous dermatologic disorders other than acne vulgaris. Diseases such as psoriasis, pityriasis rubra pilaris, sarcoidosis, condylomata acuminata, cutaneous T-cell lymphoma, skin cancer, rosacea, hidradenitis suppurativa, granuloma annulare, lupus erythematosus, and lichen planus have been shown to respond to its immunomodulatory, anti-inflammatory, and anti-tumor effects [8]. Isotretinoin also helps to prevent skin cancers such as basal cell carcinoma and squamous cell carcinoma. The literature provides cases of condyloma acuminata treated with systemic isotretinoin and cases of verruca plana treated with low doses of systemic isotretinoin (30 mg/kg) [8-10]. Reported was also a case of an immunosuppressed patient in whom a resistant genital wart was successfully treated with systemic isotretinoin [10]. Both immunosuppression and generalized verruca vulgaris distinguished our case from other cases.

Recalcitrant warts present a private therapeutic cause. Their duration may be lengthy and especially resistant to treatment [9]. We achieved positive results with long-term (eighteen months) and low-dose (10–20 mg) systemic isotretinoin. Because of these findings, oral isotretinoin seems to be the most effective therapy and one available at a reasonable cost for recalcitrant warts when compared with the findings of previous studies.

Here, we would like to stress that treatment with systemic isotretinoin is an inexpensive and more effective treatment option for patients with resistant verrucae than conventional treatments. Systemic isotretinoin may be an alternative drug for the treatment of verrucae so long as its potential for teratogenicity is taken into account.

Consent

The examination of the patient was conducted according to the principles of the Declaration of Helsinki.

The authors certify that they have obtained all appropriate patient consent forms, in which the patients gave their consent for images and other clinical information to be included in the journal. The patients understand that their names and initials will not be published and due effort will be made to conceal their identity, but that anonymity cannot be guaranteed.

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