Eruptive Seborrheic Keratoses Secondary to Telaprevir-Related Dermatitis

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PRACTICE **POINTS**

- Cutaneous reactions presenting as eczematous dermatitis are common (41%–61%) during telaprevir treatment.
- Teplaprevir-related dermatitis can lead to eruptive seborrheic keratoses that may spontaneously resolve.

To the Editor:

Telaprevir is a hepatitis C virus (HCV) protease inhibitor used with ribavirin and interferon for the treatment of increased viral load clearance in specific HCV genotypes. We report a case of eruptive seborrheic keratoses (SKs) secondary to telaprevir-related dermatitis.

A 65-year-old woman with a history of depression, basal cell carcinoma, and HCV presented 5 months after initiation of antiviral treatment with interferon, ribavirin, and telaprevir. Shortly after initiation of therapy, the patient developed a diffuse itch with a "pricking" sensation. The patient reported that approximately 2 months after starting treatment she developed an erythematous scaling rash that covered 75% of the body, which led to the discontinuation of telaprevir after 10 weeks of therapy; interferon and ribavirin were continued for a total of 6 months. In concert with the eczematous eruption, the patient noticed many new hyperpigmented lesions with enlargement of the few preexisting SKs. She presented to our clinic 6 weeks after the discontinuation of telaprevir for evaluation of these lesions.

On examination, several brown, hyperpigmented, stuck-on papules and plaques were noted diffusely on the body, most prominently along the frontal hairline (Figure 1). A biopsy of the right side of the forehead showed a reticulated epidermis, horn pseudocysts, and increased basilar pigment diagnostic of an SK (Figure 2).

In a follow-up visit 3 months later, the SKs had notably decreased in number. Five remaining SKs on the back were treated with liquid nitrogen. Complete resolution was observed 1 month later.

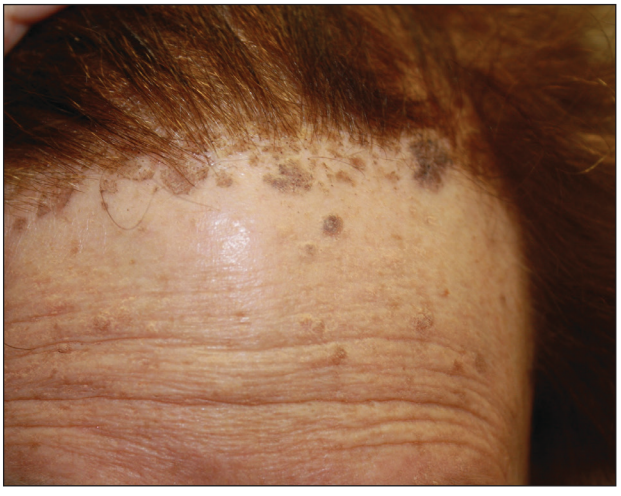

Figure 1. Brown, hyperpigmented, stuck-on papules and plaques were noted most prominently along the frontal hairline.

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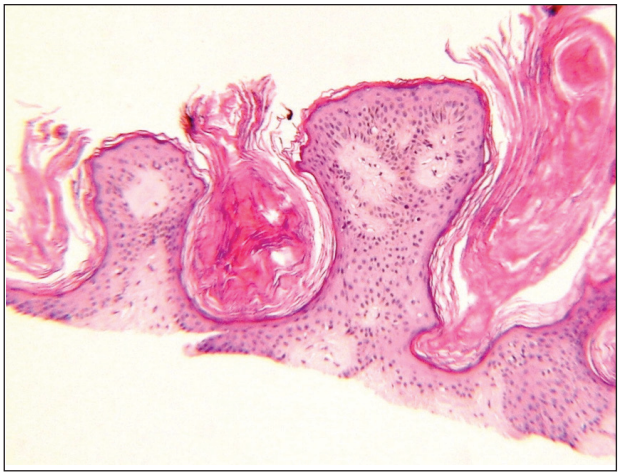

Figure 2. The biopsy revealed a reticulated epidermis, horn pseudocysts, and increased basilar pigment diagnostic of a seborrheic keratosis (H&E, original magnification ×100).

Telaprevir is an HCV protease inhibitor that is given in combination with interferon and ribavirin for increased clearance of genotype 1 HCV infection. Cutaneous reactions to telaprevir are seen in 41% to 61% of treated patients and include Stevens-Johnson syndrome, drug reaction with eosinophilia and systemic symptoms, sarcoidosis, pityriasis rubra pilaris–like drug eruption, and most commonly telaprevir-related dermatitis.[1-3] Telaprevir-related dermatitis accounts for up to 95% of cutaneous reactions and presents at a median of 15 days (interquartile range, 4–41 days) after initiation of therapy. Nearly 25% of cases occur in the first 4 days and 46% of cases occur within 4 weeks. It presents as an erythematous eczematous dermatitis commonly associated with pruritus in contrast to the common morbilliform drug eruption. Secondary xerosis, excoriation, and lichenification can be appreciated. With appropriate treatment, resolution occurs in a median of 44 days.[1] Treatment of the dermatitis can allow completion of the recommended 12-week course of telaprevir and involves oral antihistamines and topical corticosteroids. Severe cases may require oral corticosteroids and discontinuation of telaprevir. If the cutaneous eruption does not resolve, discontinuation of ribavirin also may be required, as it can cause a similar cutaneous eruption.[4]

Eruptive SKs may be appreciated in 2 clinical circumstances: associated with an internal malignancy (Leser-Trélat sign), or secondary to an erythrodermic eruption. Flugman et al[5] reported 2 cases of eruptive SKs in association with erythroderma. Their first patient developed erythroderma after initiating UVB therapy for psoriasis. The second patient developed an erythrodermic drug hypersensitivity reaction after switching to generic forms of quinidine gluconate and ranitidine. The SKs spontaneously resolved within 6 months and 10 weeks of the resolution of erythroderma, respectively.[5] Most of our patient's eruptive SKs resolved within a few months of their presentation, consistent with the time frame reported in the literature.

Telaprevir-related dermatitis presumably served as the inciting factor for the development of SKs in our patient, as the lesions improved after discontinuation of telaprevir despite continued therapy with ribavirin. As noted by Flugman et al,[5] SKs may be seen in erythroderma due to diverse etiologies such as psoriasis, pityriasis rubra pilaris, or allergic contact dermatitis. We hypothesize that the eruption immunologically releases cytokines and/or growth factors that stimulate the production of the SKs. Fibroblast growth factor receptor 3 mutations have been associated with SKs.[6] An erythrodermic milieu may incite such mutations in genetically predisposed patients.

We present a case of eruptive SKs related to telaprevir therapy. Our report expands the clinical scenarios in which the clinician can observe eruptive SKs. Although further research is necessary to ascertain the pathogenesis of these lesions, patients may be reassured that most lesions will spontaneously resolve.

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