Itch scratches at a multifaceted diagnosis

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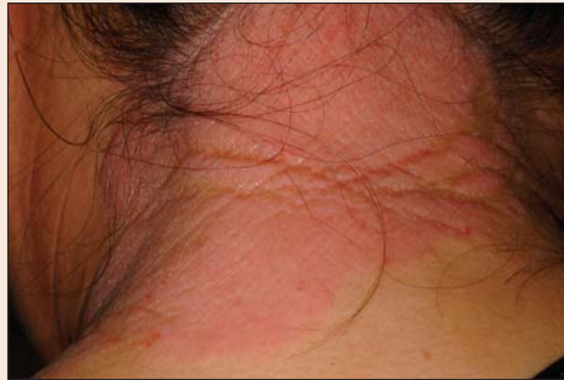
A 30-year-old Asian woman presents to our clinic with a very itchy rash on her neck that has been present for several months. She had attempted to relieve the itch with both OTC (eg, triple antibiotic ointment, clotrimazole cream) and prescription (desonide cream) treatments, none of which were effective. The patient admitted to scratching the area excessively in response to the itchiness. She also reported a very atopic history, including seasonal allergies, asthma as a child, and eczema.

Examination revealed a 12×15-cm area of shiny, thickened, pink skin with accentuated skin lines (see Figure 1). On further questioning, the patient admitted to using the point of a hair brush to scratch the area. There was little if any scaling observed, and a potassium hydroxide test revealed nothing of interest.

Punch biopsy showed thickening of the epidermis; a diffuse, sparse lymphocytic infiltrate in the upper dermis; modest elongation of rete ridges; and orthokeratosis. Stains for fungal organisms were negative.

FIGURE 1

A red, thickened patch with accentuated skin lines



The most likely diagnosis is

- Neurodermatitis
- Contact dermatitis
- Atopic dermatitis
- Lichen simplex chronicus

Discussion

The correct answer is all of the above. Neurodermatitis, also known by its archaic name, lichen simplex chronicus, is a secondary reaction pattern set off by a primary trigger, which puts the patient into an itch-scratch-itch cycle. This patient has atopic dermatitis, itself a combination of sensitive, itchy, allergy-prone skin and atopy.

Most likely, the patient was exposed to a contactant to which she was sensitive, which caused the initial contact dermatitis. Having hypersensitive skin, she exhibited an exaggerated response to the trigger. Patients with this condition have difficulty controlling their urge to scratch. This causes further hypersensitivity of the cutaneous nerves and exacerbates the itch. In other words, the more they scratch, the more they itch. The appearance of the skin surface becomes thickened, shiny, initially red, then darker, with accentuated skin lines.

Neurodermatitis can just as easily be caused by dry skin or psoriasis. It can occur all over the body but commonly develops in the occipital scalp and neck in women and in the scrotum in men. It can go on for years, and scratching the area can become a deeply ingrained habit.

In our patient, the biopsy was quite helpful in ruling out other conditions such as psoriasis or infection. The allergen that triggered the initial itch, in this case an unknown contactant, has ceased to be of much importance compared to the neurodermatitis that resulted.

Treatment Patients must be educated about their condition; otherwise, many of them will worry a great deal more about what they might have "picked up" and will itch all the more simply out of anxiety. It is important that patients understand the role that scratching plays in perpetuating the problem. Patients must discontinue any OTC or prescription treatments currently being used, in case the product is contributing to the problem. Application of a topical corticosteroid solution or gel (clobetasol is a good choice) and a 2-week course of prednisone (40 mg daily after meals for 7 days, then 20 mg daily after meals for 7 days) is the treatment of choice. Contraindications include peptic ulcer disease, severe osteoporosis, or brittle diabetes. □

The author practices in the dermatology department of the Warren Clinic, Tulsa, Okla, and is the founder and president of the Society of Dermatology Physician Assistants. He has indicated no relationships to disclose relating to the content of this article.