What Is Your Diagnosis?

A 46-year-old woman with contact dermatitis previously had been treated for over 4 years with topical steroids. She noted increasing pruritus and vegetating plaques on her anterior shins.

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The Diagnosis: Lichen Simplex Chronicus

First described in 1883, lichen simplex chronicus (LSC) is a common condition marked by epidermal thickening and accentuated skin markings.[1] LSC is caused by repeated scratching or rubbing of a localized area that ultimately gives rise to lichenification, the hallmark of this disorder. Although the primary lesion is an erythematous papule, LSC typically presents as a sharply circumscribed solitary hyperkeratotic plaque (Figure 1). With persistent irritation, the healthy skin lines become increasingly prominent and form a crisscrossing pattern. The intervening skin may appear as a group of flat-topped polygonal papules, and an irregular zone of postinflammatory hyperpigmentation often extends several centimeters at the periphery. Although almost any body area may be affected, the usual sites are those that easily can be reached, such as the nape of the neck (lichen nuchae), flexural surface of the ankles and wrists, lower legs, extensor forearms, scalp, and anogenital regions.[1] Because paroxysmal pruritus is the predominant symptom, evidence of excoriation often is present on the surface of the lesion.

Rarely occurring in children, LSC is most common in patients aged 30 to 50 years. The disorder also tends to be found more frequently in women and in those bearing heavy emotional burdens.[2] Patients with atopic dermatitis seem particularly susceptible to developing LSC, though an explanation for this has yet to be elucidated.[3] The initial itching, however, may be secondary to any pruritic condition—including allergic contact dermatitis (as exemplified by our patient), lichen planus, stasis dermatitis, tinea corporis, xerosis, and seborrheic dermatitis—or may arise on seemingly healthy skin. Furthermore, patients with LSC are thought to be more readily conditioned to scratch following an itch stimulus compared with control subjects.[1]

Although the clinical diagnosis of LSC usually is not difficult, a full body examination should be done to exclude similar entities such as lichen planus and psoriasis. When a biopsy is indicated, histologic changes consist of hyperplasia of all components of the epidermis, with acanthosis and irregular elongation of the rete ridges.[4] In contrast to psoriasis, hyperkeratotic regions are interspersed with areas of parakeratotic scaling.[5] Slight spongiosis may be present, but vesiculation is absent. A sparse mononuclear perivascular infiltrate may be observed in

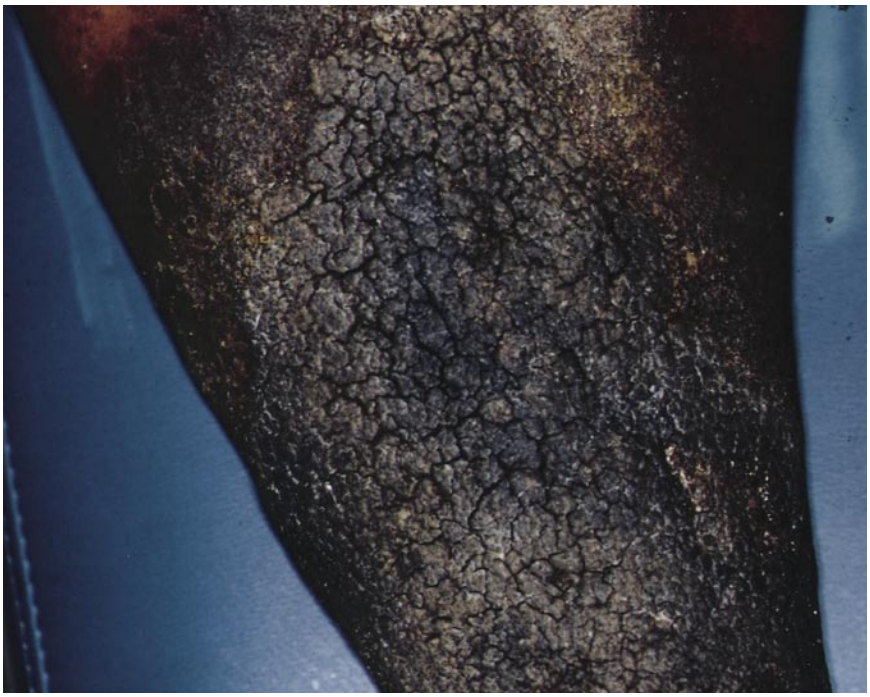

Figure 1. Pronounced plaques of lichenification on the anterior shin.

Figure 2. Hyperkeratosis and acanthosis with broad and elongated rete ridges (H&E, original magnification ×100).

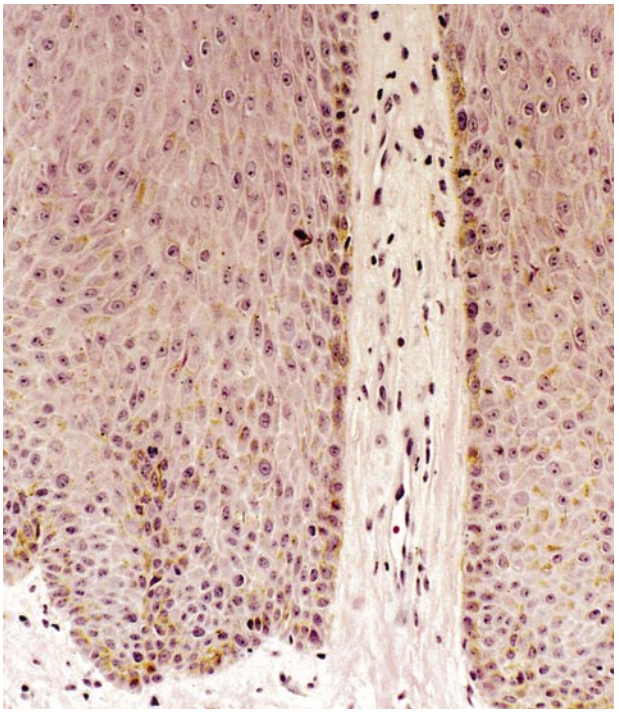

Figure 3. Scant perivascular infiltrate and thickening of the papillary dermal collagen fibers (H&E, original magnification ×200).

the papillary dermis, as well as an increased number of thickened collagen bundles, characteristically arranged in vertical streaks. As the scratching or rubbing persists over time, the epidermal hyperplasia and fibrosis become progressively more marked (Figures 2 and 3).

Treatment of LSC focuses on breaking the itch-scratch cycle. The need to avoid irritating the involved areas is critical to therapy and must be stressed to the patient. From a pharmacologic perspective, topical corticosteroids are the mainstay of treatment. High-potency agents may be tried first on small areas and generally succeed in inducing remission. Intralesional injections and occlusion of intermediate-strength steroids also may provide a favorable initial response. As the lesions resolve, lower-potency topical steroids may be used. Adjunctive topical agents include doxepin cream, capsaicin, emollients, and various tar preparations.[6,7] In addition, a study by Yosipovitch et al[8] suggested that topical salicylic acid/dichloromethane may be able to suppress pruritus in patients with LSC who are resistant to other therapeutic modalities. Occlusion by itself often is beneficial and has none of the side effects of steroids. An effective way to provide occlusion is the Unna boot. This dressing easily is applied and provides a physical barrier that requires changing once a week. Moreover, oral antihistamines frequently are helpful because of their antipruritic and sedative qualities. As its name implies, LSC is a persistent condition and usually has a prolonged course. Recurrences are common even after therapy provides temporary relief.

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