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Clinical Image

Lichen Simplex Chronicus as an Essential Part of the Dermatologic Masquerade

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Abstract

A 48 years old female patient had been suffering from the lesions presented for four years. They have started as small, pruritic patches which had been mechanically irritated and grew up in time. The patient had no associated comorbidities or allergies, and she was not under any medication. On physical examination, she presented one erythematous, exudative plaque, with dimensions of 2.5/4 cm, located on the proximal phalanx and interphalangeal articulation of the left thumb. All histopathological features were consistent with the diagnosis of lichen simplex chronicus. Some lesions of lichen simplex chronicus exhibit signs of pseudocarcinomatous, infundibular and sometimes eccrine ductal proliferation of keratinocytes. Although the pseudoinfiltrative aspect of the epithelial proliferation and its pronounced degree might mimic a well-differentiated lesion of squamous cell carcinoma, a lack of cellular atypia and atypical mitotic figures are features that do not support this diagnosis. On the other hand, long lasting lesions of lichen simplex chronicus may lead to alterations in the processes of keratinocyte proliferation and differentiation and eventually give rise to malignant transformation. The best treatment management is a psychodermatological approach, a combination of skin care with psychotherapy, in order to prevent relapses.

A 48 years old female patient had been suffering from the lesions presented in Figure 1a/1b for four years. They have started as small, pruritic patches which had been mechanically irritated and grew up in time. The patient had no associated comorbidities or allergies, and she was not under any medication. On physical examination, she presented one erythematous, exudative plaque, with dimensions of 2.5/4 cm, located on the proximal phalanx and interphalangeal articulation of the left thumb.

A punch biopsy taken from the lesion revealed a markedly hyperplastic epidermis (Fig. 2a), with irregular hyperkeratosis and foci of parakeratosis, a thickened granular zone, acanthosis with irregular rete ridges and a sparse to moderately dense dermal superficial perivascular lymphohistiocytic infiltrate (Fig. 2b). The hyperplastic changes were also present at the level of follicular infundibula, with hypergranulosis and hyperkeratosis in the form of keratotic cysts (Fig. 2c and 2d). The eccrine ducts showed overtly squamous metaplasia. The affected papillary dermis included coarse bundles of collagen arranged in vertically oriented streaks (Fig. 2e). Rare eosinophils dispersed around some widely dilated capillaries,

together with an increased number of fibrocytes, were detected in high power microscopic examination (Fig. 2f). All these features were consistent with the diagnosis of lichen simplex chronicus.

We have taken into consideration the following differential diagnosis: knuckle pads, nodular prurigo, HPV associated lesions or Bowen disease. Lichen simplex chronicus, together with prurigo nodularis, knuckle pads and picker's nodule, represent chronic psoriasiform dermatitides induced by persistent, vigorous rubbing.

Figure 1: Erythematous, exudative plaque, with dimensions of 2.5/4 cm, located on the proximal phalanx and interphalangeal articulation of the right thumb

They share similar histopathologic features and pathogenic mechanisms. Lichen simplex chronicus is rather a hyperkeratotic plaque, whereas the others are merely papules or nodules produced by the effect of severe and repeated scratching of a cutaneous area located within easy reach of the fingernails [1].

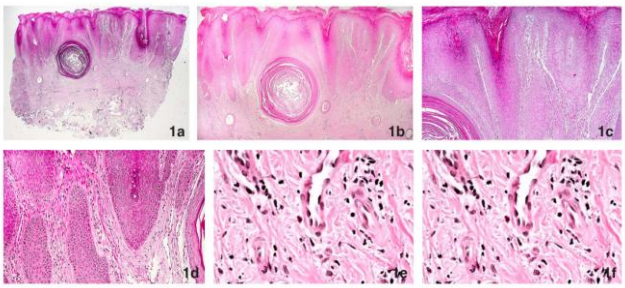

Figure 2: Histopathological features were consistent with the diagnosis of lichen simplex chronicus

Lichen simplex chronicus (LSC) is a chronic skin condition strongly linked with emotional factors which are the source of intense pruritic sensation [1, 2]. As a result of constant scratching or rubbing of the skin, lichenified plaques develop mostly on accessible body areas such as the scalp, head and neck, hands, genitals [3]. Patients with LSC find themselves in a vicious circle, since emotional factors play a key role in the initiation of pruritus and the appearance of the lesions causes more psychological tension [1], sexual dysfunction and sleep disturbances [4]. An JG et al. have shown that the dermatology quality life index (DLQI) was lower in patients with LSC than in those with other dermatological conditions such as psoriasis [5]. LSC patients have also been found to present particular personalities characteristics in comparison with healthy control individuals, such as pain avoidance tendency, more conforming personalities, dependency on other people [6], or even depression and dissociative disturbances [1].

Although not a live threatening condition, the lesions of LSC can become secondary infected or, in rarer instances, they can evolve into squamous cell carcinoma [7]. As was the case here, some lesions of lichen simplex chronicus exhibit signs of pseudocarcinomatous, infundibular and sometimes eccrine ductal proliferation of keratinocytes. Although the pseudoinfiltrative aspect of the epithelial proliferation and its pronounced degree might mimic a well-differentiated lesion of squamous cell carcinoma, a lack of cellular atypia and atypical mitotic figures are features that do not support this diagnosis. On the other hand, long lasting lesions of lichen simplex chronicus may lead to alterations in the processes of keratinocyte proliferation and differentiation and eventually give rise to malignant transformation [8].

The best treatment management is a psychodermatological approach, a combination of skin care with psychotherapy, in order to prevent relapses [1].

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