Image

DOI: 10.6966/EDMJ.202012_7(4).0006

Hypertrophic Lichen Planus Mimicking Cutaneous Squamous Cell Carcinoma

Wen-Yu Chang[1,2] , *Chung-Yi Yang*[3,4,*]

We report a 64-year-old man presented with a large chronic pruritic plaque lesion located at his left pretibial area after traumatic injury. A typical microscopic picture confirmed the diagnosis of hypertrophic lichen planus. Considering its similarity to squamous cell carcinoma and the propensity for malignant change, accurate diagnosis based on the collaborative effort of dermatologist and dermatopathologist is mandatory to guide appropriate treatment and avoid unnecessary invasive surgery.

Key words: hypertrophic lichen planus, squamous cell carcinoma

Case Report

A 64-year-old man visited the dermatology clinic for a large chronic pruritic plaque lesion located at his left pretibial area. He had a trauma history 10 years ago and the skin hyperkeratosis started to develop from his pretibial area with gradual extension. Despite his visiting multiple clinics and being given intermittent topical steroid treatments of various potencies, there was no apparent improvement in the lesion.

Physical examination demonstrated an irregular pinkish hypertrophic hyperkeratotic plaque with peripheral brownish pigmentation located on his left lower extremity (Fig. 1). There were no notable mucosal lesions or nail change. A skin biopsy for ruling out the possibility of squamous cell carcinoma showed irregular psoriasiform to papillomatous epidermal hyperplasia with hypergranulosis, mild

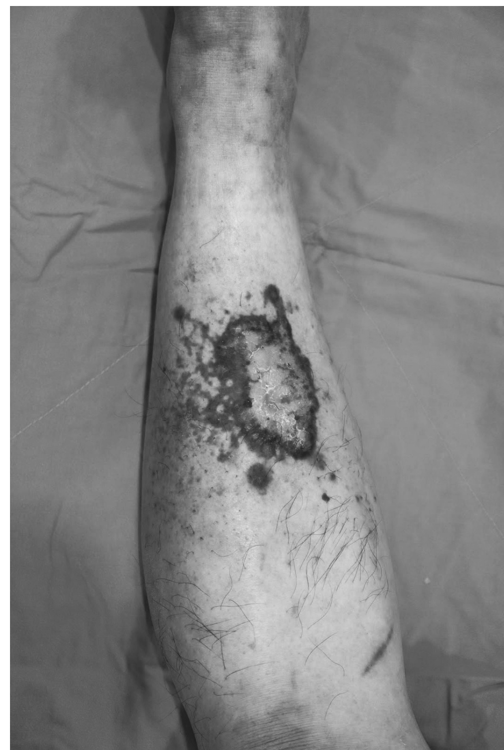

Fig. 1 An irregular pinkish hyperkeratotic plaque with peripheral brownish pigmentation on left lower leg and a focal ulcer due to chronic rubbing.

From the [1]School of Medicine for International Students, College of Medicine, I-Shou University; [2]Department of Dermatology, E-Da Cancer Hospital; [3]School of Medicine, College of Medicine, I-Shou University; [4]Department of Medical Imaging, E-Da Hospital, Kaohsiung, Taiwan
Received: October 23, 2020 Accepted: December, 31 2020
* Address reprint request and correspondence to: Chung-Yi Yang, Department of Medical Imaging, E-Da Hospital, No. 1, Yida Road, Jiaosu Village, Yanchao District, Kaohsiung 82445, Taiwan
Tel: 886-7-615-0011, E-mail: cyyang@g.ntu.edu.tw

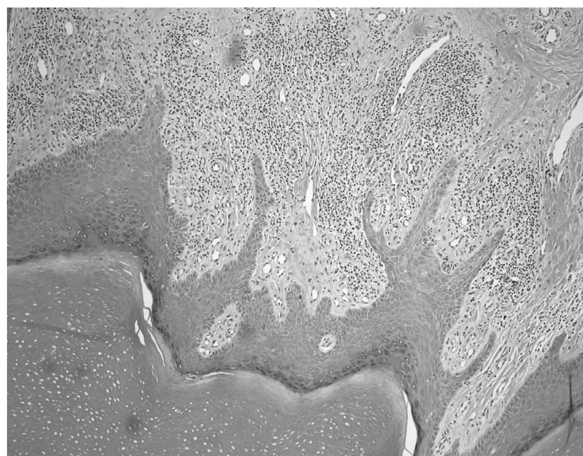

Fig. 2 Irregular psoriasiform to papillomatous epidermal hyperplasia with hypergranulosis, mild parakeratosis and marked hyperkeratosis with extensive lichenoid infiltrates of lymphocytes in the superficial dermis without evidence of malignant change, suggestive of hypertrophic lichen planus.

parakeratosis and marked hyperkeratosis. There were lichenoid infiltrates of lymphocytes in the superficial dermis, together with focal basal vacuolar degeneration, dyskeratosis, squamatization of the basal layer and saw-toothed rete ridges without evidence of epidermal dysplasia or malignancy. Scattered melanophages and a few eosinophils were also noted (Fig. 2). The pathologic picture was suggestive of hypertrophic lichen planus.

Hypertrophic lichen planus is a rare variant of lichen planus, which is an idiopathic inflammatory disease that may appear along the site of trauma or scars (Koebner's phenomenon). It tends to present on distal extremities for many years and is often refractory to insufficient treatment. Diagnosis is important not only for distinguishing hypertrophic lichen planus from lichen simplex chronicus and lichen amyloidosis, which are both commonly encountered skin lesions with good prognosis, but also for ruling out the possibility of other malignant diseases. Given the similarities between hypertrophic lichen planus and squamous cell carcinoma as well as the propensity of the former for malignant change, skin biopsy is indispensible.[1–3] The diagnostic accuracy of this disease needs to be enhanced by collaboration between dermatologist and dermatopathologist to avoid unnecessary cutaneous surgery.[4] After confirming the diagnosis, the condition of the patient improved gradually and his pruritus was relieved after topical treatment with high potency steroid for six months.

References

1. Levandoski KA, Nazarian RM, Asgari MM: Hypertrophic lichen planus mimicking squamous cell carcinoma: the importance of clinicopathologic correlation. JAAD Case Rep 2017;3:151-4. doi: 10.1016/j.jdcr.2017.01.020.
2. Knackstedt TJ, Collins LK, Li Z, et al: Squamous cell carcinoma arising in hypertrophic lichen planus: a review and analysis of 38 cases. Dermatol Surg 2015;41:1411-8. doi: 10.1097/DSS.0000000000000565.
3. Haenen CCP, Buurma AAJ, Genders RE, et al: Squamous cell carcinoma arising in hypertrophic lichen planus. BMJ Case Rep 2018;2018: bcr2017224044. doi: 10.1136/bcr-2017-224044.
4. Dietert JB, Rabkin MS, Joseph AK: Squamous cell carcinoma versus hypertrophic lichen planus; a difficult differential diagnosis of great significance in approach to treatment. Dermatol Surg 2017;43:297-9. doi: 10.1097/DSS.0000000000000886.