

Palmoplantar Lichen Planus: A Report of four cases

Palmoplantar Lichen Planus: Dört olgu sunumu

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ABSTRACT

Lichen planus is a benign, inflammatory and itchy dermatosis that is incurred by skin, skin extensions and mucosa. Lichen planus rarely show palmoplantar involvement. Since stratum corneum in palmoplantar lichen planus is extremely thick, lesions can be yellow colored instead of the purple colored papules that are classic lesions. Clinically, it might be confused with psoriasis, secondary syphilis, verruca vulgaris, hyperkeratotic eczema, palmoplantar keratodermas, hyperkeratotic type tinea pedis and xanthomas. In this report, four lichen planus cases were presented who represented palmoplantar involvement. *J Clin Exp Invest* 2011; 2(1): 80-84

Key words: Lichen planus, palmoplantar, hyperkeratosis.

ÖZET

Liken planus deri, deri eklentileri ve mukozayı tutan selim, yangısal ve kařıntılı bir dermatozdu. Liken planus nadiren palmoplantar tutulum gösterir. Plamoplanter liken planusda stratum corneum çok kalın olduđu için bu bölgedeki lezyonlar klasik erguvani görünüm yerine sarı renkte olabilir. Klinik olarak psoriasis, sekonder sifiliz, siđil, hiperkeratotik egzema, palmoplanter keratoderma, hiperkeratotik tinea pedis ve ksantomalar ile karıřtırılabilir. Bu raporda, palmoplantar tutulum gösteren dört liken planus olgusu sunulmuřtur. *Klin Deney Ar Derg* 2011; 2(1): 80-84

Anahtar kelimeler: Liken planus, palmoplanter, hiperkeratozis

INTRODUCTION

Lichen planus is a benign, inflammatory and itchy dermatosis that is incurred by skin, skin extensions and mucosa. In the literature, palm and sole involvement of lichen planus has been rarely reported and generally lichen planus doesn't bear resemblance to classical clinical morphology.^{1,2} Many morphological types of palmoplantar lesions have been defined in lichen planus. These are erythematous plaques,^{3,4} punctate keratosis,^{5,6} diffuse keratoderma,⁷ and ulcerated lesions.^{8,9} In this report, four cases have been presented who represented palmoplantar settlement but not typical clinical traits of lichen planus and whose histopathological findings have been reported as lichen planus.

Case 1

A 37-year-old female patient applied to outpatient clinic with the complaint of itchy lesions in both palms and fingertips one year ago. She stated that her complaints soothed with cortisone ointments that she had used before however they didn't vanish completely. The patient, who didn't have any trait in her background and family history, didn't have a drug use history as well before lesions appeared. In the dermatological examination, there

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were dented, explicit and itchy lichenified plates in the shape of stapler hole in both palms and hard annular lesions with palpation in finger (Figure 1-a). The examination of the oral mucosa was seen lacy white network on the both buccal mucosa. Biopsy was carried out and the histopathological findings were consistent with the diagnosis of lichen planus (Figure 1-b). The patient was treated with clobetasol propionate ointment, acitretin 25 mg/day, systematic antihistamine and moisturizing treatments. The patient was followed up for a year. On the examination of the patient at the end of follow up period, the lesions did not heal completely.

Case 2

A 40-year-old male patient applied to outpatient clinic with the complaint of itchy papules and plaques in both palms, sides of fingers and sole seven months ago. He stated that his lesions started from the palms one month ago and extended to top of the hands and sole. Having used only topical moisturizer, there was no trait in the background and family history of the patient. He consumed alcohol for 30 years very intensely. On dermatological examination, there was extensive erythema in palms, extensive red-violet colored papules and plaques on dorsal surface of the hands, and wrists (Figure 2-a). There was yellow colored hyperkeratosis in both soles, apparent erythema in foot arch, red-purple colored papular lesions extending to the dorsal surface of foot. The histopathological examination of the lesional skin biopsy was consisted with diagnosis of lichen planus (Figure 2-b). He treated with subcutaneous enoxaparin for a month at 3 mg/day dose. Seven months later, there was apparent healing in the hand lesions but no changes in the foot lesions.



Figure 1-a.

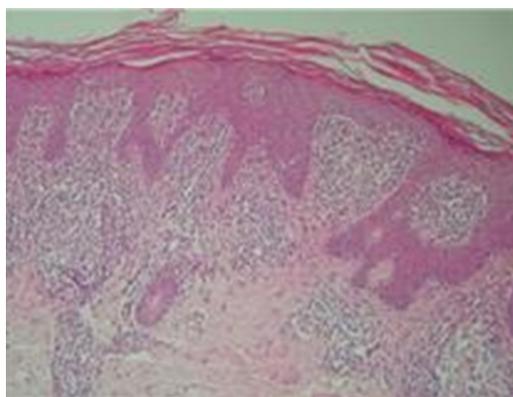


Figure 1-b. Bandlike lymphocytic infiltrate and sawtoothing of the epidermis (H&E stain, X100).

Microscopically, epidermal hyperplasia with sawtoothing, prominent granular cell layer, dermal lichenoid (bandlike) lymphocytic infiltrate and apoptotic keratinocytes (Civatte bodies) in the epidermis were seen (figure 1-b).



Figure 2-a.

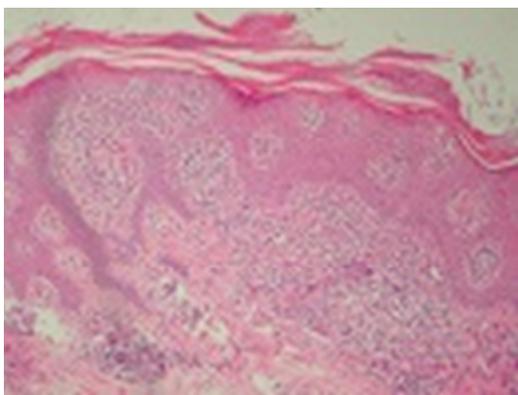


Figure 2-b. Elongated rete ridges at the epidermis and bandlike inflammatory infiltrate in the dermis (H&E stain, X100).

Microscopic examination showed an epidermal hyperplasia with elongated rete ridges in a sawtooth fashion and bandlike lymphoplasmocytic cell infiltration in the superficial dermal area (figure 2-b).



Figure 3-a.

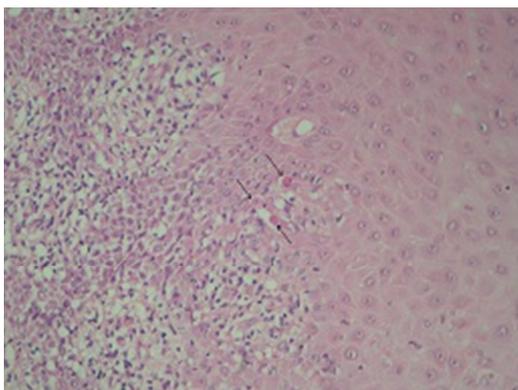


Figure 3-b. Lichen Planus showing sawtoothing at rete ridges, bandlike lymphocytic infiltration and Civatte bodies (arrows) in the dermal-epidermal junction (H&E stain, X200).

Microscopic examination revealed that epidermal hyperplasia with prominent granular cell layer, interface dermatitis showing a dense lichenoid (bandlike) infiltrate composed of predominantly lymphocytes at the dermal-epidermal junction, the apoptotic keratinocytes exhibiting homogeneous eosinophilic cytoplasm in the epidermis, and epidermal rete ridges in a sawtooth shape (Figure 3-b).



Figure 4-a:

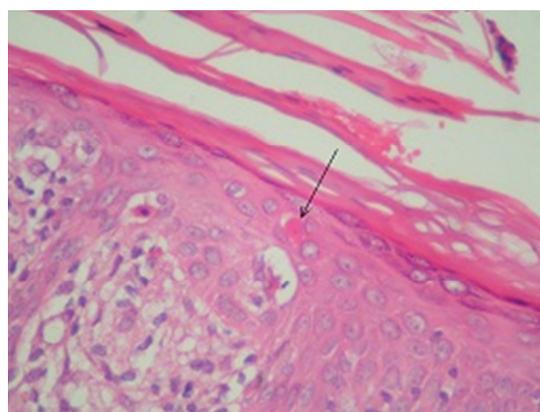


Figure 4-b: A Civatte body (arrow) can be seen in the epidermis (H&E stain, X400).

Microscopically, epidermal hyperplasia with sawtoothing, prominent granular cell layer, dermal lichenoid (bandlike) lymphocytic infiltrate and apoptotic keratinocytes (Civatte bodies) in the epidermis were seen (figure 4-b).

Case 3

A 70-year-old female patient applied to outpatient clinic with the complaint of itchy lesions in palms and feet. From her history, she stated that her complaints started in her palms three years ago. Two months later, similar lesions developed in the sole. On examination, there were hyperkeratotic papules and plaques with scale on extensive erythematous ground in the palmoplantar area (Figure 3-a). Histopathologic examination of the lesional skin biopsy was consistent with diagnosis of lichen planus (Figure 3-b). The patient was given acitretin 50 mg/day.

Case 4

A 53-year-old female patient applied to outpatient clinic four months ago. From her history, she stated that her complaints started in her hands and soles seven years ago. There was no trait in her background or family history. On dermatological examination, there were dented and annular style hyperkeratotic papules and plaques in the palmoplantar area (Figure 4-a). The pathological examination of palmar biopsy revealed lichen planus (Figure 4-b). There were extensive purplish papules in the flexural surfaces of lower and upper extremity. The patient was given 25 mg/day acitretin, clobetasol propionate ointment and oral antihistaminic. On examination of the patient eight months later, there was medium-level healing in lesions of palms and the itches soothed.

DISCUSSION

Lichen planus and lichenoid diseases cover a very wide clinical spectrum. Palmoplantar lichen planus is not common and most frequently encountered in 3rd and 5th decades.¹ It might be difficult to diagnose when it appears as an isolated finding. In the absence of straight, polygonal, violet colored papules of classic Lichen planus, the only way to diagnose is to perform skin biopsy.²

There are plaques or small papules with compact hyperkeratosis in palmoplantar lichen planus.

Erythematous, sharp bordered, hyperkeratotic, itchy plaques are common.² There are no Wickham lines due to the thickness of corneous layer. Soles are more frequently affected than palms. The most frequently involved area is internal plantar arch; however fingertip involvement is not characteristic.¹ These lesions heal in a couple of months generally.¹ Although more than 20% of patients are asymptomatic¹⁰, itching is the most frequently encountered symptom.^{3,11,12}

There are a lot of clinical types of palmoplantar lichen planus. The most frequently encountered one is erythematous-squamous form. There are also hard and tuberoses, semi-transparent, erosive, hyperkeratotic, punctate keratosis-like and ulcerative types. More than one type can be encountered in a person at the same time.² Vesicular lesions can be seen in the ventral surfaces of palms and fingers.¹

Since stratum corneum in palmoplantar lichen planus is extremely thick, lesions can be yellow colored instead of the purple colored papules that are classic lesions. Clinically, it might be confused with psoriasis, secondary syphilis, verruca vulgaris and xanthomas. Moreover, the lichen planus that is in the shape of diffuse plaques that are formed as a result of the coalesced of papules. Differential diagnosis of this form includes hyperkeratotic type tinea pedis, hyperkeratosis eczema and palmoplantar keratodermas. Punctate porokeratosis, callus, Kyrle disease, achrokeratosis paraneoplastica, arsenical keratosis should also be considered in the differential diagnosis. Another clinical entity that looks like palmoplantar lichen planus is palmoplantar lichen nitidus.²

Topical steroids, tazaroten, systemic steroids, acitretin and immunosuppressive agents are among the treatment options for palmoplantar lichen planus.²

Palmoplantar lichen planus has been discussed since it is rarely seen, it has a chronic persisting progress and it should be taken into account in the differential diagnosis of many diseases.

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