

# **A CASE OF LICHEN PLANUS WITH SCARRING RESPONCSE MIMICKING DISCOID LUPUS ERYTHEMATOSUS. A CASE REPORT.**

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## **Abstract**

Lichen planus (LP) is a chronic inflammatory of unknown etiology that affects the skin, tongue, mucous membranes, and nails, and in rare forms, it may affect the scalp (lichen planaopilaris). Lichen planus is a non scarring disease (exception is lichen planaopilaris of the scalp) and the usual sequelae is post-inflammatory hyperpigmentation. In this case report, I presented a case of lichen planus of a glabrous skin associated with scarring response mimicking discoid lupus erythematosus (which is known to be a scarring dermatosis). This is the first report of lichen planus of glabrous skin healed with a scar like lesions with discoid lupus erythematosus .

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**Keywords:** Lichen planus, scar

## **Introduction**

Lichen planus (LP) is a chronic inflammatory and immune mediated disease of unknown etiology that affects the skin, tongue, mucous membranes, and nails, and in rare forms, it may affect the scalp (lichen planaopilaris) <sup>1</sup>. The typical rash of lichen planus most commonly involves the flexor surfaces of the extremities and presents as pruritic flat topped purple papules <sup>2</sup> that leave post-inflammatory hyperpigmentation <sup>1</sup>. Lichen planus is a non scarring disease (exception is lichen planaopilaris of the scalp) and the usual sequelae is post-inflammatory hyperpigmentation. In this case report, I present a case of lichen planus of a glabrous skin associated with scarring response mimicking discoid lupus erythematosus (which is known to be a scarring dermatosis).

## **I.**

### **Introduction**

Lichen planus (LP) is a chronic inflammatory and immune mediated disease of unknown etiology that affects the skin, tongue, mucous

membranes, and nails, and in rare forms, it may affect the scalp (lichen planaopilaris) (Daoud M and Pittelkow M, 2012). The typical rash of lichen planus most commonly involves the flexor surfaces of the extremities and presents as pruritic flat topped purple papules (Kumar V et al, 2009) that leave post-inflammatory hyperpigmentation (Daoud M and Pittelkow M, 2012). Lichen planus is a non scarring disease (exception is lichen planaopilaris of the scalp) and the usual sequelae is post-inflammatory hyperpigmentation.

In this case report, I present a case of lichen planus of a glabrous skin associated with scarring response mimicking discoid lupus erythematosus (which is known to be a scarring dermatosis). The patient was 52 year old female, presented with a pruritic, purple annular plaque on the dorsum of her right hand of one year duration (Fig 1). This plaque started as nodular lesion which extended in size over several weeks to reach a plaque of a size of 3cm by 4cm. No history of similar rash elsewhere, or scalp or nail symptoms. The patient sought medical advice by dermatologist from the start of appearance of the lesion, and she received topical steroids for her case with no improvement. On presentation to the clinic, the more obvious finding is the central scarring with peripheral induration and Erythema. In addition, there was no rash elsewhere (skin, scalp, nails and mucous membranes). Because of this significant central scarring, the initial thinking was discoid lupus erythematosus and two skin biopsies were done to diagnose the case. Skin biopsies were done which involve the three zones (normal skin, active edge and the scarred one). The patient signed out the required consent form for taking the skin biopsy. Relevant laboratory investigations for this case were done, including complete blood count, Antinuclear antibody, kidney function test, and urine analysis. The skin biopsy of the active edge (induration and erythema) showed hyperkeratotic palmar-type skin with lichenoid inflammatory infiltrate, with numerous colloid bodies and basal cell degeneration and some pigment incontinence. There is no thickening of basement membrane or parakeratosis. The skin biopsy of the central area was typical for atrophic scar with replacement of papillary dermis with collagen and elastic fibres with minimal inflammatory cell infiltrate and without pigmentary incontinence. Direct immunofluorescence of both biopsies was negative for deposition of IgM, IgG, IgA, or C3c deposition. Regarding laboratory investigation, nothing was relevant for the case.

## Discussion

Lichen planus is a common mucocutaneous disorder affecting approximately 0.5–1 percent of the world's population (Mollaoglu N, 2000). Most cutaneous lesions are seen on the flexor surface of the wrists, lower back, ankles and scalp. Other forms of lichen planus (Bhattacharya M, et al,

2000) are hypertrophic, atrophic, erosive/ulcerative, follicular (lichen planaopilaris), annular, linear lichen planus, vesicular, actinic, and lichen planus pigmentosus.

With the exception of lichen planaopilaris, this disease (including all clinical variants) is not a scarring disease, and usually resolves within few months (Sharma A , et al, 2012) leaving a skin with prominent post inflammatory hyperpigmentation.

In this paper, I presented a case with a scarred skin lesion on the dorsum of the patient hand with an erythematous border. Initially on the presentation, discoid lupus erythematosus was the initial clinical impression. Skin biopsy was done which involve the three zones (normal skin, active edge and the scarred one). The biopsy was of LP and the biopsy was repeated which showed similar result. The patient had no nail changes, scalp involvement, mucosal involvement and no skin lesions similar to this or typical of LP elsewhere. The patient was given topical steroid which improved the patient regarding the progression of the disease, but there is no change regarding the central scar.

Discoid lupus erythematosus was the initial clinical impression and this was because of the significant central scarring, and this is usual for this disease to heal with this (Al-Refu K , Goodfield M, 2009). But the skin biopsy confirmed the diagnosis of LP.

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## Legends of figures

Figure 1

The hand of the patient demonstrating erythematous annular plaque, the more obvious finding is the central scarring with peripheral induration and Erythema.

