

# Ulcerating Lichen Planopilaris – Successful Treatment by Surgery

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## Abstract

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Lichen planus is a T-cell mediated autoimmune disorder affecting the skin and mucous membranes. Ulcerating lichen planus is uncommon mostly on oral and genital mucosa but not skin. Lichen planopilaris, however, is a subtype of lichen planus affection hair follicles and leading to permanent scarring alopecia. We report a case of lichen planopilaris of the scalp with multiple alopecic patches ulceration – a hitherto unreported clinical feature. The patient was treated surgically, and the defect could be closed by combined tissue advancement and extension.

## Introduction

Scarring alopecia is an end stage of various underlying pathologies such as trauma, chronic inflammation, deep follicular infection, collagen vascular disorders and lichen planopilaris (LPP) [1][2]. In 1994, Kossard described the peculiarities of frontal fibrosis alopecia of women with similar histopathology as LPP but with the limitation to the frontal hair line. LPP, in contrast, has multifocal areas of involvement [3][4].

We describe the very unusual presentation of a postmenopausal female with ulcerating LPP of the scalp and the successful surgical treatment.

## Case report

A 56-year old postmenopausal female patient with progressive scarring alopecia caused by LPP for more than five years was referred to our department because of chronic ulceration of the capillitium.

On examination, we observed large alopecia lesion (about 10 cm in diameter on the capillitium) with a fronto-parietal localised 1.5 x 1.5 large ulcer covered by a scab. There was some putrid secretion. We took a swab for microbiology demonstrating large amounts of *Staphylococcus aureus*. After removal of the scab, a scalp ulcer with sharp borders became visible (Fig. 1).

Routine laboratory disclosed a C-reactive protein of 9.51 mg/L (normal range < 5 mg/L).



Figure 1: Frontal scalp ulceration within patches of scarring alopecia

We performed a complete excision of the ulcer in general anaesthesia (Fig. 2). The lesion was closed after wide undermining of the wound borders by combined tissue advancement and extension using lateral relief cuts (Fig. 3).



Figure 2: Surgical situs after complete excision of the ulcer

Antibiotic prophylaxis was realised with 1,500 mg cefuroxime one hour before surgery. Healing was uneventful. We observed no relapse of the ulceration.



Figure 3: Defect closure by tissue advancement combined with bilateral extension

Histopathology demonstrated a skin ulcer centrally with chronic polypoid granulating inflammation. In the periphery, a stronger fibroblastic inflammation was noted. In the surrounding skin, there was perifollicular fibrosis and lichenoid lymphocytic inflammation in the isthmus and infundibular areas of the follicles leading to their destruction. Elastic fibres were almost completely missing.

## Discussion

LPP is a follicular variant of lichen planus. It is characterised lichenoid lymphocytic infiltrates, perifollicular fibrosis and destruction of hair follicles. Apoptotic cells are found in the outer root sheath. Common findings are scarring alopecia, scalp dysesthesia, erythema, and perifollicular hyperkeratosis. The disease has a female preponderance and a peak in the fourth to the sixth decade of life [5][6][7].

LPP can be subdivided into the following variants: classic LPP, frontal fibrosing alopecia of Kossard, and Graham-Little syndrome. The latter, also known as Lasseur-Piccardi-Graham-Little syndrome, is characterised by GLPS is an unusual variant of LPP characterized by multifocal scarring alopecia of the scalp, non-scarring alopecia of the axillae, and/or pubis and follicular lichen planus (LP) involving the trunk and extremities [8].

Treatment is usually a medical one with topical or intralesional corticosteroids, topical calcineurin inhibitors, systemic hydroxychloroquine and cyclosporine A [9][10][11].

While LPP is not known for ulcerations, lichen planus ulcerations may be uncommon but represent a very severe subtype of the disease. Oral lichen planus is often ulcerative [12]. Treatment of ulcerative plantar lichen planus needs systemic immunosuppression and often surgery [13][14].

The scalp ulcer in our patient was at least clinically comparable to squamous cell carcinoma. In long-standing LPP of the scalp, SCC has occasionally been observed [15].

Treatment of choice was complete surgical excision and defect closure by tissue advancement and extension [16].

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