

Case Reports

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Lichen planus pigmentosus: surgical treatment with dermabrasion

Líquen plano pigmentoso: tratamento cirúrgico com dermoabrasão

ABSTRACT

Lichen planus pigmentosus is a rare variant of lichen planus and represents a therapeutic challenge. Dermabrasion was performed with a good clinical response in the treatment of this condition, on the face of a female patient who also bears frontal fibrosing alopecia.

Keywords: dermabrasion; lichenoid eruptions; alopecia.

RESUMO

O líquen plano pigmentoso é uma variante incomum de líquen plano e representa um desafio terapêutico. Foi realizada a dermoabrasão com boa resposta clínica para o tratamento dessa patologia na face em paciente do sexo feminino, portadora também de alopecia frontal fibrosante.

Palavras-chave: Dermoabrasão; erupções liquenoides; alopecia.

INTRODUCTION

Lichen planus pigmentosus (LPPig) is an uncommon variant of lichen planus (LP). It is clinically represented by brownish, reticular, asymptomatic, or pruritic stains, usually found in areas exposed to sunlight and flexures.¹

It represents a therapeutic challenge due to poor response to topical and systemic treatments.²

CASE REPORT

A 38-year-old Caucasian, light-skinned female bearing erythematous macules for 4 years sought dermatological care. The macules had become brownish in the zygomatic region, and were associated with the low density of hairs of the eyebrows (Figure 1). The patient was initially treated with a triple whitening formula (4.00% hydroquinone, 0.05% tretinoin, 0.01% fluocinolone acetonide) and photoprotection. Despite the treatment there was an increase in the intensity and staining

of the lesions and a biopsy was indicated with diagnostic hypotheses of melasma, ochronosis and lichen planus pigmentosus (LPPig). Pathology showed interface dermatitis with pigmentary incontinence (Figure 2), compatible with LPPig.³ Due to the poor response to the clinical treatment, and the impact on the patient's quality of life, the authors chose to carry out dermabrasion in a small test area, obtaining good results. They subsequently performed the treatment of all the affected area using anesthesia – combining the block of the infraorbital nerve (2% lidocaine without vasoconstrictor) and injection of 0.5% lidocaine in areas that remained sensitive.

For the manual dermabrasion, sterile fine water sandpaper (granulation 100) was used until a pinpoint bleeding was formed and the pigment was visually completely removed. Sandpaper with 400 and 600 granulation was also used to achieve a more homogeneous and gradual appearance at the

lesion's edges. The abrasion area was occluded with sterile transparent polyurethane film (Tegaderm®) for five days. Oral acyclovir was prophylactically administered for 2 days before and 3 days after the procedure. After the removal of the dressing (Figure 3) the patient used petrolatum jelly up until complete healing was achieved, thereafter using 0.05% clobetasol cream for 30 days, followed by 4% hydroquinone cream for 3 months. After that period, an ophthalmological evaluation and liver enzymes evaluation was carried out, and the authors introduced 400 mg/day hydroxychloroquine associated with 0.1% tacrolimus cream.

A satisfactory cosmetic outcome was achieved, and maintained – with mild local erythema – at 6 and 9 months after the procedure (Figures 4 and 5). Twelve months after the procedure, recurrence in small areas was observed, at which point new localized dermabrasion was indicated. The patient, however,



FIGURE 1: Before the procedure; brownish stains in the malar region

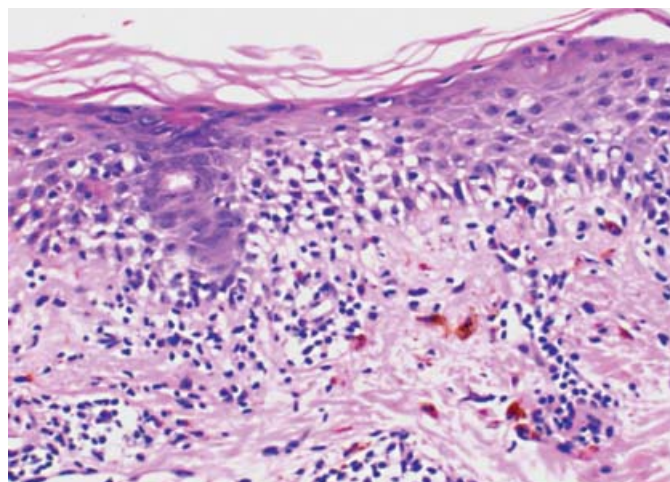


FIGURE 3: Appearance immediately after dermabrasion



FIGURE 2: Biopsy of the face; interface lichenoid reaction, vacuolar degeneration and incontinencia pigmenti (H&E, 40x)



FIGURE 4: Six months after the procedure



FIGURE 5:
Nine months after
the procedure



FIGURE 6:
One year after the
procedure, partial
repigmentation of
lichen planus pig-
mentosus

chose to continue only with clinical treatment due to the fact that she was satisfied with her appearance (Figure 6).

DISCUSSION

Treatment of LPPig is difficult and the scarce literature on the topic describes resistance to topical corticosteroids and calcineurin inhibitors.⁴ There are reports of favorable outcomes with Nd:YAG laser,⁵ intense pulsed light⁶ and, despite the controversy, with topical tacrolimus.⁷

Dermabrasion is described for the treatment of LPPig and melasma, disorders that involve melanocyte activation and pigment incontinence.⁸ The proposed mechanism is the physical removal of the existing pigment through abrasion. Nevertheless there is a lack of case reports showing long-term follow up and results for this procedure.

The patient evaluated in the present study had almost complete improvement of the picture, with results being maintained during up to 1 year of follow-up, when small areas of recurrence could be noticed. The authors highlight the improvement in the patient's quality of life after one dermabra-

sion session and that she has remained satisfied with the resulting aesthetic appearance up until the time the present paper was submitted, undergoing clinical treatment only (hydroxychloroquine and tacrolimus).

LPPig was recently linked to frontal fibrosing alopecia (FFA), and may precede its onset.⁹ This may suggest systemic involvement and the need for a broader approach of the pathology. The evaluated patient was diagnosed with AFF due to the loss of the eyebrows and slight recession of the frontal hairline. The biopsy of the scalp showed perifollicular lichenoid infiltrate, which justifies the authors' choice for the concomitant use of hydroxychloroquine.

In the present report the authors realized that dermabrasion was crucial for the removal of the facial pigment associated with LPPig. Despite the good development and the patient's satisfaction with the minimal recurrence in the 12-month follow-up, the authors deem further studies are necessary to determine the role and indications of dermabrasion in the treatment of LPpig.●

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