

## Frontal Fibrosing Alopecia and Lichen Planus Pigmentosum in a Man: Clinical Case and Literature Review

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### Abstract

Frontal fibrosing alopecia (AFF) is an exceptional variant of lichen planopilaris mainly affecting the menopausal woman, rare cases are also reported for men. Pigmentogenic lichen is more common in India and the Middle East. We report in this paper an exceptional case of AFF in a man, in association with a pigmented lichen.

**Keywords:** Man; Frontal Fibrosing Alopecia; Lichen Planopilaris; Lichen Planus Pigmentosus

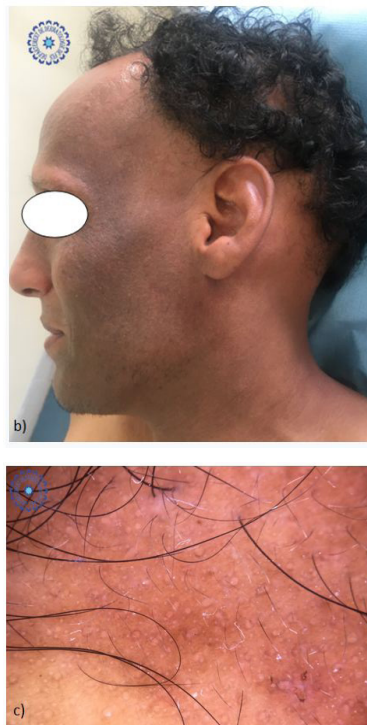
### Introduction

Frontal fibrosing alopecia (FFA) is a particular form of cicatricial alopecia, characterized by the receding of the fronto-temporal margin, frequent eyebrow involvement and rarer of other hairy areas, described by Kossain 1994 [1-2]. It is an occasional variant of lichen planopilaris, which is more frequent in the postmenopausal woman. In recent years, there has been an increasing number of cases reported in men. Lichen planus pigmentosus is more frequent in India and the Middle East. Currently, many publications describe the association of LPP and frontal fibrosing alopecia (FFA). We report in this paper an exceptional case of FFA in a man, associated with a lichen planus pigmentosus.

### Case Report

A 38-year-old man, consulted for non-itchy diffuse hyperpigmentation of the face and neck with pruritus, with no perifollicular erythema, associated with hair loss, localized to the occipital and frontal region, progressively evolving for two years. The examination noted a greyish brown hyperpigmentation of the face and neck, an alopecic band in the occipito-frontal crown, a rarefaction of the eyebrow hair (Figure 1). The Dermoscopy of the scalp revealed a scarring pattern, hair rarefaction, isolated hairs on the frontal hairline, hyperkeratosis, and blue-grey perifollicular hyperpigmentation (Figure 1c) and in the face: the presence of a pigmented pseudo-network with thick gray to blue-gray dots and globules arranged in a circle around the follicular orifices (Figure e). A biopsy was taken from a hyperpigmented macule, and the histopathology revealed focal interface dermatitis with superficial dermal melanosis and pigmentary incontinence, consistent with lichen planus pigmentosus. Histopathology of the biopsy taken from the frontal margin revealed a pattern of scarring alopecia consistent with FFA. The patient started treatment with prednisone in an anti-inflammatory dose was prescribed, along with systemic tetracycline of 100 mg per day, with mild improvement of the hyperpigmentation, mild improvement in the hair growth on the eyebrows and bilateral frontotemporal area after six months.





**Figure1 :** (a,b): Clinical photographs of patient:exhibiting complete loss of sideburn hair and recession of frontal hairline with Involvement of the parietal, occipital and/or supra- and retroauricular region as well as complete loss of eyebrows (c): Dermoscopy of the alopecic plaque showing reduced follicular openings and perifollicular hyperkeratosis and perifollicular erythema



**Figure2 :** (d) clinical aspect of LPP ; Hyperpigmentation on the chin and cheek (e) Dermoscopic aspect LPP in the cheek : the presence of a pigmented pseudo-network with thick gray to blue-gray dots and globules arranged in a circle around the follicular orifices

## Discussion:

Frontal fibrosing alopecia (FFA) is a particular form of cicatricial alopecia, usually affects women of menopausal age. This entity seems to be much less rare in men case, so somevery exceptionnel cases have been reported in the literature [3-4]. The pathophysiology is unknown, therefore the increase in incidence in recent years indicates the existence of an environmental factor, such as the use of cosmetic products, the sun, mustard oil, hair dye at henna and amla oil according to the study by Aldoori *et al* [5]. But other factors could be involved including immunological, genetic and hormonal factors.

Clinically FFA is manifested by a retraction of the fronto-temporo-parietal and sometimes occipital implantation line of the scalp, giving the appearance of a cicatricial alopecia “crown”. In the evolved forms, the contrast is evident between the alopecic zone where the skin is pale, devoid of follicular orifices with completed is appearance.

The downy hair giving a particular aspect to the implantation line, but one can observe the persistence of some hairs isolated terminals in front of the recoil zone: this is the sign of the solitary hair [6]. On the dermoscopic plane, the FFA is characterized by a follicular apertures loss, erythema and perifollicular hyperkeratosis made of adhering dander at the hair base [7,8]. One can even observe a lichen combined pilaris plane diffused all over the scalp, as without patient. On the other hand, the coexistence of FFA and LPP is rare and has recently been described. Up to now, two studies have been reported in the literature [8-9]. The LPP generally precedes the FFA, although sometimes the beginning is not precise and they are simultaneous occasionally [10].

Histopathology confirms the diagnosis by demonstrating perifollicular fibrosis, lichenoid lymphocytic inflammation around the infundibulum, the isthmus, and the bulb, as well as a reduction in the follicles number with fibrosis substitution [10].

Due to the disease's scarcity, there is no consensual therapeutic strategy for both LPP and FFA. The management of the LPP uses topical medications such as high-level dermocorticoids (clobetasol propionate), immunomodulators, keratolytics, hydroquinone with or without retinoic acid, azelaic acid, kojic acid, glycolic acid,

vitamin A, 10% dimethylsulfoxide aqueous solution, among others, with variable results [11].

Tetracyclines (doxycycline 100 mg) appears to have an anti-inflammatory effect in LPP and possibly in FFA [12]. Standardized comparative studies would be useful. It is exceptional that this pathology are envisaged as high-level therapeutics like an oral corticotherapy or an immunosuppressor (ciclosporin, mycophenolate mofetil), given their purely suspensive effect. In our case the therapeutic management was to put the patient under oral corticotherapy with tetracycline whose evolution is in progress.

## Conclusion

Although the majority of the cases are reported in post menopausal women, FFA also occurs in man. The clinical and histopathological features of FFA in man are comparable to those described in women. Unique areas of involvement in men include eyebrows and facial hair. Concomitant lichen planus mucosal, autoimmune disease, and thyroid disease are rare in men with FFA. Hair distribution loss and associated hormonal abnormalities facilitate recognition of FFA in men. This association, although exceptional, provides further evidence that FFA is a variant of lichen planar hair.

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