

# Folliculitis Decalvans with tufted hairs successfully treated with isotretinoin and rifampicin

Anugandha Ghatge, Bhushan Madke, Sugat Jawade, Adarshlata Singh, Sudhir Singh

Department of Dermatology, Jawaharlal Nehru Medical College, Datta Meghe Institute of Medical Science, Wardha, India.

**Abstract** Folliculitis decalvans is a type of primary cicatricial alopecia predominantly which affects mainly middle aged males. Defective host responsive mechanism or infective etiology plays role in the pathogenesis. Clinically follicular pustules along with scarring alopecia are seen mainly over vertex and occipital area. Trichoscopy classically shows multiple tufts of hairs with serous exudates and crust. Treatment mainly aims at antimicrobial therapy along with corticosteroids & retinoid have also been tried.

**Key words**

Folliculitis decalvans, cicatricial alopecia, tufted hairs.

## Introduction

Folliculitis Decalvans (FD) is characterized by neutrophilic inflammatory scarring alopecia clinically manifesting as patchy or diffuse areas of hair loss with erythematous follicular papulopustules. Occasionally perifollicular yellowish gray scales can be seen along with erosions & hemorrhagic crusts. Various etiologies have been suggested in the pathogenesis of FD including impaired cell-mediated immunity or an autoimmune process, superantigen theory with abnormal host defense mechanism, infective causes i.e. bacterial & fungal.

## Case report

A 27-year-old male presented with patchy area

of hair loss over vertex & occipital area since past 3 months, gradually progressive and associated with pain & mild pruritus. On cutaneous examination there was thin atrophic shiny skin in multiple patches which were studded with erythematous papules and pustules over perifollicular areas (**Figure 1**). There were mild serous exudates with hemorrhagic crust & yellowish scales at some places (**Figure 2**). He had similar episode eight months back which resolved after treatment. Trichoscopy showed the tufts of hairs shafts arising from single follicular opening, pale white serocrust and hemorrhagic crust (**Figure 3**). Other features of scarring alopecia were noted i.e. epidermal atrophy, absence of follicular ostia, perifollicular scaling. The patient refused to undergo a biopsy. On the basis of clinical and trichoscopic findings, we prescribed oral Isotretinoin (0.5mg/kg/ day), Rifampicin 600mg/ day and topical fusidic acid lotion twice a day. After one month improvement is seen with complete hair growth on scalp (**Figure 4**).

---

### Address for correspondence

Prof. Bhushan Madke,  
Head, Department of Dermatology, Venereology & Leprology, Jawaharlal Nehru Medical College, Acharya Vinoba Bhave Rural Hospital, Sawangi (Meghe), Wardha, Maharashtra, India.  
Ph: +917066887353  
Email: drbhushan81@gmail.com



**Figure 1** Showing patchy hair loss with follicular papulopustules.



**Figure 2** Showing erythematous papules & pustules, thin atrophic scarred areas and hemorrhagic crusts.

## Discussion

Quinquaud was first to describe Folliculitis decalvans (FD) in the 19th century.<sup>1</sup> Cicatricial alopecia occurs due to fibrosis preceding irreversible damage to hair follicles. Destruction at the level of the insertion of the arrector pili muscle into the follicular bulge region where follicular stem cells are located leads to failure of follicle to regrow.<sup>2</sup> Follicular destruction in cicatricial alopecia may be primary or secondary.<sup>2</sup> Primary cicatricial alopecia is seen in folliculitis decalvans, lichen planopilaris, discoid lupus erythematosus, pseudopelade where hair follicles are primarily affected where intervening dermis spared. Whereas in secondary cicatricial alopecia dermis is



**Figure 3** Trichoscopy shows tufting of hairs (Yellow arrows) with more than 5 hairs emerging from a single follicular unit. Pale white serocrust (red arrow) and hemorrhagic crust (green arrow) are well appreciated. [DermLite, Non-polarized mode, 10x magnification].



**Figure 4** Improvement with complete hair growth after 1 month of treatment.

primarily affected which leads to follicular destruction secondarily, seen in various inherited and congenital disorders, Lichen sclerosis et atrophicus, amyloidosis etc. As primary cicatricial alopecias are mainly inflammatory, hence based on the inflammatory mediator which is seen in histopathology it has been further divided into lymphocytic, neutrophilic or mixed variety.<sup>3</sup> Lymphocytic infiltrate is seen in Lichen planopilaris (LPP), frontal fibrosing alopecia, pseudopelade of Brocq; neutrophilic

infiltrate is seen in folliculitis decalvans, dissecting folliculitis.

Folliculitis decalvans is usually seen involving occipital and the vertex area of the scalp although beard, axillary & pubic areas may also be involved. Early lesion is erythematous papules which in later stages turn into follicular pustules and scarred areas due to underlying fibrosis. Occasionally patient complains of itching, pain and burning sensation. Numerous hairs comes out of a single follicular opening giving the characteristic appearance of 'tuft' or toothbrush like.<sup>4</sup> Tufting of hairs occurs due to damage of the infundibular epithelia and healing leads to the formation of one large, common infundibulum.<sup>1</sup> The tufted hairs includes central anagen hairs which is surrounded by telogen hairs converge to a common dilated orifice.<sup>1</sup> Tufted folliculitis is a commonly seen in patients with Folliculitis Decalvans, which consist of multiple hairs (around 5–20) converge through a single follicular orifice.

Various treatment modalities available are oral and topical antibiotics, corticosteroids, zinc, retinoid etc. Oral antibiotics such as minocycline, cephalosporins, clarithromycin along with isotretinoin & rifampicin has also been suggested.<sup>5</sup> Rifampicin acts by inhibiting DNA dependant RNA polymerase & is effective against *Staphylococcus aureus* which is a

common pathogen isolated from culture of pustules. Laser depilation using Nd-YAG laser has also been tried successfully in recurrent folliculitis decalvans.<sup>6</sup>

## Conclusion

We are reporting this rare case of folliculitis decalvans with characteristic trichoscopic finding i.e. tufting of hairs, which was managed medically with good outcome.

## References

1. Otberg N, Kang H, Alzolibani AA, Shapiro J. Folliculitis decalvans. *Dermatol Ther*. 2008 Jul;21(4):238–44.
2. Whiting DA. Cicatricial alopecia: clinico-pathological findings and treatment. *Clin Dermatol*. 2001 Mar;19(2):211–25.
3. Rongioletti F, Christana K. Cicatricial (Scarring) Alopecias. *Am J Clin Dermatol*. 2012 Aug 1;13(4):247–60.
4. Rigopoulos D, Stamatios G, Ioannides D. Primary Scarring Alopecias. In: Ioannides D, Tosti A, editors. *Current Problems in Dermatology*. S. Karger AG; 2015. p. 76–86.
5. Sillani C, Bin Z, Ying Z, Zeming C, Jian Y, Xingqi Z. Effective Treatment of Folliculitis Decalvans Using Selected Antimicrobial Agents. *Int J Trichology*. 2010;2(1):20–3.
6. Parlette EC, Kroeger N, Ross EV. Nd:YAG laser treatment of recalcitrant folliculitis decalvans. *Dermatol Surg*. 2004 Aug;30(8):1152–4..