



**FOLLICULITIS DECALVANS AFTER TREATMENT WITH TABLET MINOCYCLINE AND RIFAMPICIN – A CASE REPORT**

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**ABSTRACT**

Folliculitis decalvans is a rare condition causing scarring alopecia of the scalp. It is characterised by chronic progressive purulent follicular inflammatory changes followed by peripheral extension and eventual cicatricial alopecia. A 32-year old male presented with scalp inflammatory dermatosis for 4 years that had resulted in scarring alopecia. He had no past medical history and was generally healthy. Minocycline is a very effective antimicrobial agent in mild cases, but administration of Rifampicin in combination with Minocycline is helpful in moderate or resistant cases. An early treatment of FD, with proper antimicrobials, is important for preventing total destruction of hair follicles leading to scarring alopecia.

**KEYWORDS:** FD, Minocycline, Rifampicin.

**INTRODUCTION**

Folliculitis decalvans is a rare condition causing scarring alopecia of the scalp. It is characterised by chronic progressive purulent follicular inflammatory changes followed by peripheral extension and eventual cicatricial alopecia. The cause of the disease is unknown, although a bacterial aetiology has been postulated. *S. aureus* is the most frequently isolated organism.<sup>[1]</sup>

The early histopathologic findings of this disease show that dense perifollicular inflammatory infiltrates are mostly consisted of neutrophils, and in later stages with follicular rupture, lymphocytes, histiocytes, and plasma cells are seen, as well as perifollicular and interstitial dermal fibrosis.<sup>[1]</sup> In 1978, Smith and Sanderson first described a rare folliculitis on scalp that patches of scarring alopecia with multiple hair tufts emerging from dilated follicular orifices.<sup>[1]</sup> Tufting of hair was caused by clustering of adjacent follicular units due to a fibrosing process and to retention of telogen hairs within a dilated follicular orifice.<sup>[2]</sup>

**CASE REPORT**

A 32-year old male presented with scalp inflammatory dermatosis for 4 years that had resulted in scarring alopecia. He had no past medical history and was generally healthy. The physical examination revealed a circumscribed area of approximate 10 cm in length and 6 cm in width on the parietal and occipital areas of the scalp, and the lesion was characterized by flat-elevated erythematous with claw-like extensions, on the surface

of which several hair tufts of 10-30 normal-looking hairs arising from a single dilated follicular ostium.(Figure 1) A skin biopsy was taken from the margin site of the lesion. It showed perifollicular inflammation of lymphocyte, neutrophils and plasma cells, a few foreign body giant cells around the upper portions of the follicles, sparing the hair root level. Some of the follicles were destroyed and deformed, containing an abundance of debris and keratotic material. Fibrosis was seen in the upper dermis and around follicles grouped. The hair bulb remained safe so that hair growth was not inhibited. A superficial perifollicular and interfollicular fibrosing process trapped the involved follicular groups causing clustering and also a depression of the interfollicular epidermis.

The patient was given tablet minocycline 100mg od and capsule rifampicin 600mg od for duration of 1 month. After 1 month, rifampicin was discontinued but minocycline continued for one more month. The patient showed improvement with loss of inflammation and pustules and no further extension of alopecia.(Figure 2)



**Fig.1 Pre-treatment picture.**



**Fig.2 shows improvement with loss of inflammation.**

## DISCUSSION

Non-antibacterials have also been used in the treatment of Folliculitis decalvans (FD), the main aim has mainly been focused on the eradication of *S. aureus*. Rifampicin, which acts by inhibiting DNA-dependent RNA polymerase activity in susceptible cells, is very effective against *S. aureus*. Minocycline hydrochloride, which is a semi-synthetic derivative of tetracycline, has a bacteriostatic effect, as it inhibits protein synthesis of Gram negative and Gram positive microorganisms, including *S. aureus*. Some studies have already proved the effectiveness of Rifampicin,<sup>[3,4]</sup> however, due to rapid emergence of antibiotic resistance, it has been used in combination with other antimicrobials. The use of Clarythromycin, a macrolide antimicrobial, which binds to the 50S ribosomal subunit of susceptible microorganisms and inhibits protein synthesis, has also been suggested earlier. We thus preferred to use Minocycline as the drug of first choice, while Rifampicin was used additionally when Minocycline monotherapy was ineffective. In one of our patients, Rifampicin was substituted by Clarythromycin due to mild side-effects; Clarythromycin proved to be as effective.<sup>[6]</sup>

The antimicrobials used in this study are only a few of the large variety available for successful FD treatment, however, each drug needs proper tailoring according to the patient's condition, along with clinical assessment and laboratory investigations. Cosmetically acceptable results have been attained in most of the patients in a relatively short time. The antimicrobials used are also safe and their side-effects when used in separate short courses are mild. Our patients is still disease-free with

good hair regrowth. Thus, early and effective treatment of FD is needed to prevent progression of the disease and scarring of the scalp skin.<sup>[7]</sup>

## CONCLUSION

Minocycline is a very effective antimicrobial agent in mild cases, but administration of Rifampicin in combination with Minocycline is helpful in moderate or resistant cases. An early treatment of FD, with proper antimicrobials, is important for preventing total destruction of hair follicles leading to scarring alopecia.

## REFERENCES

1. Whiting DA. Cicatricial alopecia: Clinico-pathological findings and treatment. *Clin Dermatol*, 2001; 19: 211–5.
2. Annessi G. Tufted folliculitis of the scalp: A distinctive clinicohistological variant of folliculitis decalvans. *Br J Dermatol*, 1998; 138: 799–805.
3. Chandrawansa PH, Giam Y. Folliculitis decalvans - a retrospective study in a tertiary referred center, over five years. *Singapore Med J*, 2003; 44: 84–7.
4. Abeck D, Korting HC, Braun-Falco O. Folliculitis decalvans: Long-lasting response to combined therapy with fusidic acid and zinc. *ActaDermVenereol*, 1992; 72: 143–5.
5. Gemmeke A, Wollina U. Folliculitis decalvans of the scalp: Response to triple therapy with isotretinoin, clindamycin, and prednisolone. *Acta Dermatovenerol Alp Panonica Adriat*, 2006; 15: 184–6.
6. Parlette EC, Kroeger N, Ross EV. Nd:YAG laser treatment of recalcitrant folliculitis decalvans. *Dermatol Surg*, 2004; 30: 1152–4.
7. Kaur S, Kanwar AJ. Folliculitis decalvans: Successful treatment with a combination of rifampicin and topical mupirocin. *J Dermatol*, 2002; 29: 180–1.