Dermatology Practical & Conceptual

Folliculitis Decalvans in Father and Son – Genes, Environment or Both?

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Introduction

Folliculitis decalvans (FD) is a chronic recurrent inflammation of the scalp leading to cicatricial alopecia, which predominantly occurs in young individuals. Staphylococcus aureus infection and abnormal alteration of the patient immune response play important role in the etiopathogenesis of FD. We hereby report a rare case of FD that occurred in both father and son.

Case Presentation

A 37-year-old male presented with a history of patchy loss of hair over the scalp of 12 years. Examination showed involvement of vertex and occiput in the form of a well-defined patch of scarring alopecia with erythematous to violaceous boggy plaque over mid occiput measuring 8 × 8 cm with tufted hairs and pustules in the periphery (Figure 1A). Dermoscopy showed loss of follicular ostia, pustules, tufted hairs and perifollicular erythema (Figure 2A). Histopathology was consistent with the diagnosis of FD and pus swab culture grew Staphylococcus aureus. The patient was treated with oral rifampicin and clindamycin 300 mg twice daily with good response.

A 8-year-old male, son of the index case presented with asymptomatic patch loss of hair over the vertex of the scalp for 3 years. Dermatological examination showed vertex involvement with patchy scarring alopecia with (Figure 1B). Dermoscopy showed loss of follicular ostia, tufted hairs and perifollicular erythema (Figure 2B). The patient was also treated with rifampicin and clindamycin with significant improvement.

Conclusions

FD is a predominantly neutrophilic, chronic, and recurrent cicatricial alopecia of the scalp that predominantly occurs in young and middle-aged men [1]. Staphylococcus aureus acts as superantigens and stimulate T-cells. Genetic predisposition may play a role as colonization with Staphylococcus aureus is common while FD is an uncommon disease [2]. It is characterized by alopecia surrounded by crops of follicular

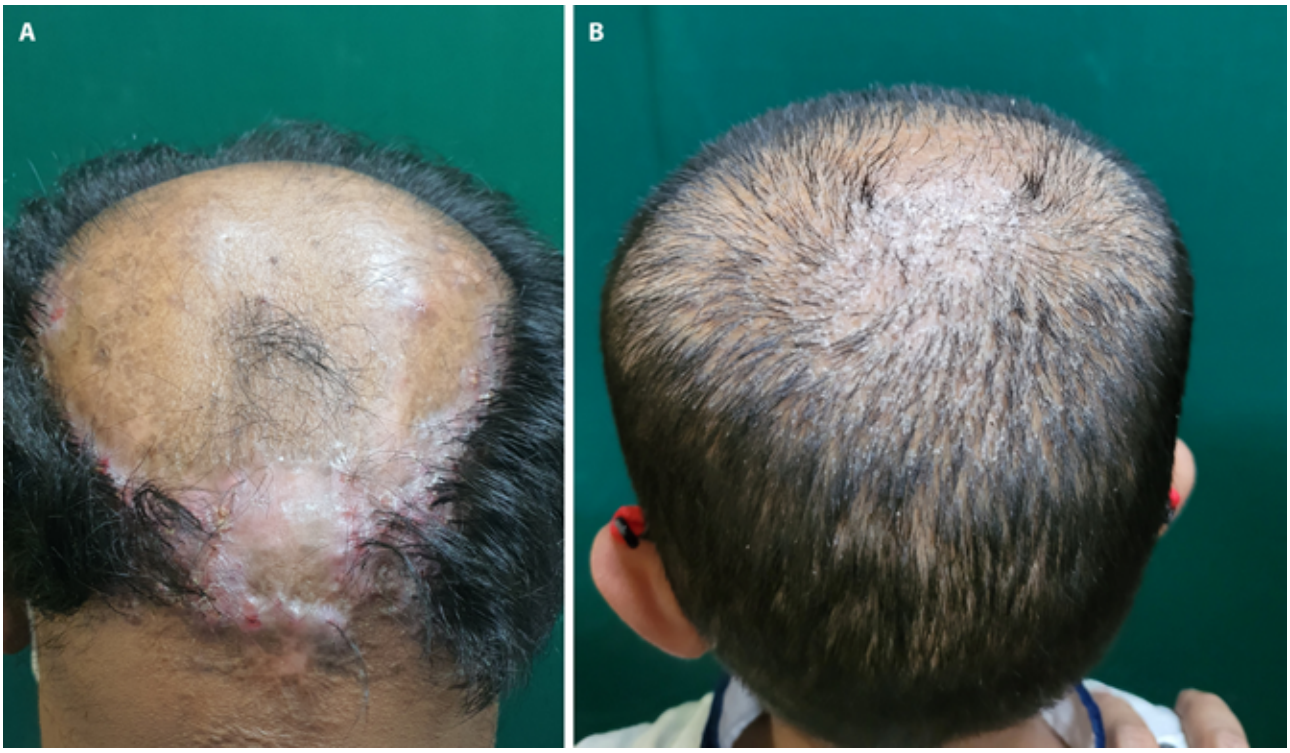

Figure 1. (A) Clinical image of case 1 during presentation showing scarring alopecia over the vertex and occipital regions of the scalp with tufted hairs and pustules. (B) Clinical image of case showing patchy scarring alopecia over vertex with tufted hairs.

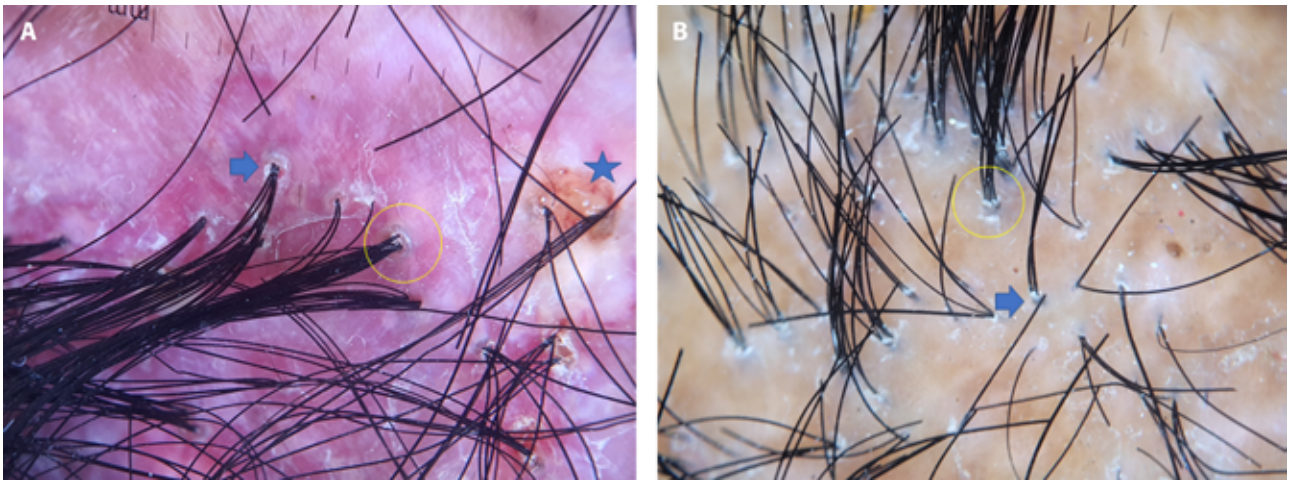

Figure 2. (A) Dermoscopy of case 1 shows background erythema, loss of follicular ostia, follicular pustules, perifollicular erythema, perifollicular hemorrhage and crust (blue star), perifollicular white scale (blue arrow) and tufted hair (yellow circle) (Dermlite DL4, X10, polarized). (B) Dermoscopy of case 2 showing loss of follicular ostia, perifollicular scale (blue arrow) and tufted hairs (yellow circle) (Dermlite DL4, X10, polarized).

pustules with pain, itching, and burning sensations. Vertex and occipital areas of the scalp are the most common areas affected, although beard, trunk, axilla, and pubic region can also be involved. Tufted folliculitis is characterized by multiple hairs (5-20) emerging from the single dilated follicular orifice and is a common finding in FD. Trichoscopy is helpful in diagnosis and shows the absence of follicular ostia, tufted folliculitis, follicular hyperkeratosis, follicular pustules, yellow tubular scaling, yellow crusts, perifollicular erythema, and perifollicular hemorrhages. Bacterial culture and sensitivity from the intact pustule may identify Staphylococcus aureus reservoir. Histopathological examination shows follicular neutrophilic abscesses in the infundibula, destruction of sebaceous glands in early lesions and dermal lymphocytes, destruction of follicles and dermal scarring in advanced lesions [3]. Oral antibiotics, corticosteroids and isotretinoin have been reported to be effective. Rifampicin -clindamycin combination has the best evidence for effectiveness. Other

treatments are intra-lesional triamcinolone acetonide, adalimumab, infliximab, secukinumab, Nd:YAG Laser, and photodynamic therapy [4]. A novel TRAF3IP2 variant has been reported to cause scarring alopecia with mixed features of discoid lupus erythematosus and FD [5]. Folliculitis decalvans has also been reported in a 32-year-old, identical male twins staying apart, exploring possible genetic links.

FD occurs due to immune response to Staphylococcus aureus that may have a genetic basis as illustrated in our cases. This occurrence may be due to chance, however, genetic basis of this rare disorder requires further evaluation.

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