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Case Report

Alopecia mucinosa: A case report

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ABSTRACT

Alopecia mucinosa, also called follicular mucinosis, is a rare inflammatory disease affecting the pilosebaceous units in the skin. It presents clinically as follicular papules with or without erythematous scaly plaques and evident hair loss in the absence of other conditions causing alopecia. Histologically, it presents as a deposition of mucopolysaccharides (mucin) within the outer root sheath and sebaceous glands. We present here a case of alopecia mucinosa in a 26-year-old male.

Keywords: Alopecia mucinosa, Follicular mucinosis, Mucin

INTRODUCTION

Alopecia mucinosa is an uncommon inflammatory disease affecting pilosebaceous units through the deposition of mucopolysaccharides (mucin). It occurs either as a primary or secondary disorder, where the secondary disorder could be associated with other benign or malignant diseases. Primary disorders can be of spontaneous and remitting type which is usually observed in children and young adults or the chronic relapsing type found in older adults. Localized lesions, in the absence of other disorders (as in cases of secondary disorders associated with benign or malignant disease), are predisposed on the face, head, and neck. However, these tend to resolve within 2 months–2 years. Therefore, a follow-up is always essential and advised.

CASE REPORT

Male patient, aged 26 years, presented with an asymptomatic reddish plaque with hair loss on the lateral aspect of right eyebrow for 1 year [Figure 1].

The past or present medical histories were unremarkable. History of atopy was absent. General examination was found to be within normal limits. Physical examination of the plaque showed, a single well-defined erythematous plaque with alopecia measuring 5 × 3cm. There were follicular papules with thorny spicules which could be detached easily. There was no sensory deficit or thickening of the nerves. Complete hemogram and renal, liver and thyroid function tests were within normal limits and serology for antinuclear antibody was negative.

Histopathological study of a biopsy specimen from the lesion was done, which showed moderately dense infiltration of superficial and deep perivascular and periappendageal areas with lymphocytes and a few eosinophils. Several follicles showed enlargement of infundibulum with deposition of abundant mucin within the infundibular keratinocytes. The infundibulum also showed mild spongiosis and infiltration by the lymphocytes. Overlying epidermis was unaffected [Figure 2a,b].

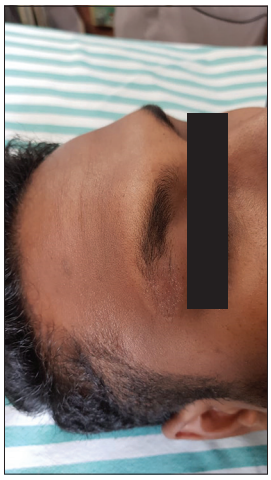

Figure 1: Showing an erythematous plaque with follicular spicules on the lateral aspect of right eyebrow.

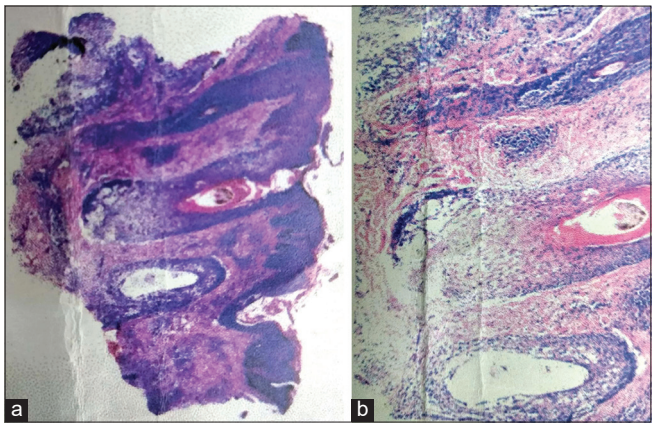

Figure 2: (a) Two enlarged follicles with deposition of abundant mucin (hematoxylin and eosin, ×100). (b) Close up view showing infundibulum with spongiosis and infiltration of lymphocytes and mucin (hematoxylin and eosin, ×100).

With the findings and absence of other disorders, the patient was diagnosed as localized type of follicular mucinosis. The patient was prescribed intralesional steroid as treatment.

DISCUSSION

Alopecia mucinosa, is a rare disease of unknown etiology which can affect both males and females of any age or race.[1] It was first described by Pinkus in 1957.[2] Later in 1959, it was renamed as follicular mucinosis, as alopecia is not always seen as a prominent feature.[3] Follicular mucinosis is characterized histologically by mucopolysaccharides (mucin) deposits within the follicular epithelium with both superficial and deep perivascular and interstitial mixed cell infiltrates. Follicular keratinocytes have been considered as a source of mucin.[4] Other common conditions associated with madarosis are hypothyroidism, Hansen's disease and atopic dermatitis, which were not present in this patient. This clinicopathological correlation led to the diagnosis in our patient.

Nickoloff and Wood[5] study showed the following histological features in benign juvenile idiopathic follicular mucinosis, in comparison to follicular mycosis fungoides:

1. The infiltrate mainly of lymphocytes was predominantly confined to the follicles, perifollicular, or perivascular zones without extension into the epidermis
2. Within the follicular epithelium, a dense infiltrate of lymphocytes with occasional atypical nuclei was observed; however, Pautrier microabscesses were never noted
3. An absence of significant plasma cells or eosinophil containing inflammatory dermal infiltrates was observed.

Specific treatment for idiopathic follicular mucinosis is not mentioned. The current treatment options available are topical, intralesional and systemic corticosteroids, dapsone, antimalarials, isotretinoin, indomethacin, minocycline, interferon, and photodynamic therapy.[6]

Therefore, our patient was diagnosed as idiopathic follicular mucinosis and treated with intralesional steroids.

CONCLUSION

Alopecia mucinosa should also be considered in the differential diagnosis of localized patches of alopecia. This can be confirmed by biopsy.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent.

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Nil.

Conflicts of interest

No conflicts of interest.

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