

Case 4 : A Man with Alopecia and Excessive Dandruff

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Physical examination

There was excessive scaling over the scalp and a bald patch was found at the occipital area, measuring 2 cm x 3 cm. There was no scar on the scalp. 'Exclamation mark' hair was absent (Figure 1). Erythematous scaly eruption was also noted at the bilateral eyebrows and nasolabial folds.

CASE SUMMARY

History

Mr. Ng, a 25-year old policeman, presented on February 1995 complaining of excessive dandruff and a patch of hair loss over his scalp for 6 months. The hair loss sometimes recovered spontaneously. He denied any history of trauma to the scalp. The body hair at other areas such as the pubic area and axillae were normal. Otherwise he enjoyed good past health. There was no family history of alopecia or other skin problem.

Differential diagnoses

Differential diagnoses of the scaly scalp include seborrhoeic dermatitis, tinea capitis and psoriasis. Possible causes of his baldness include alopecia areata, traumatic alopecia and discoid lupus erythematosus.

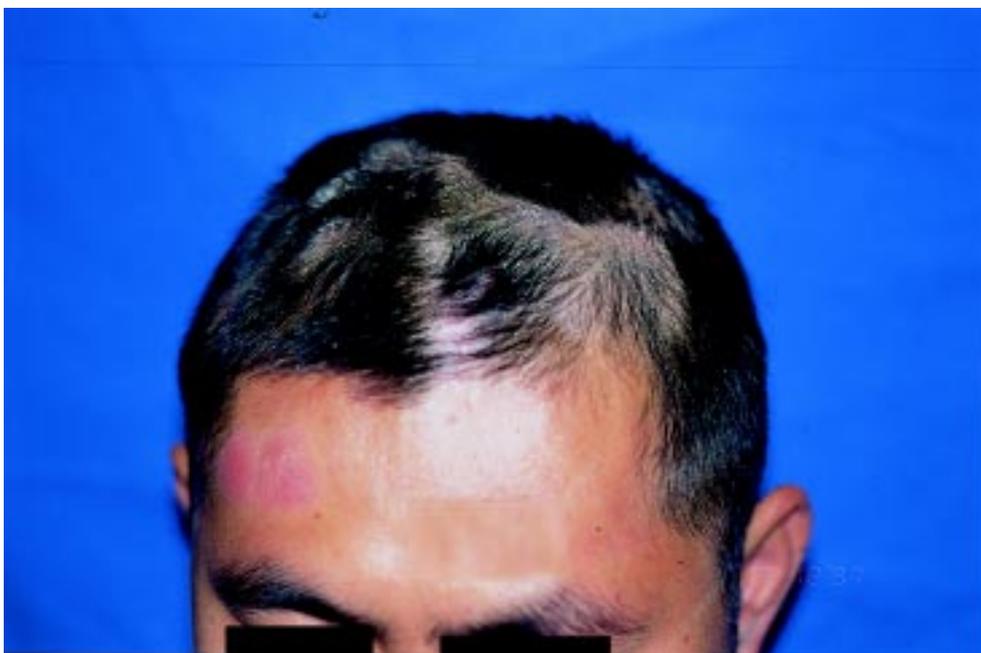


Figure 1: Erythematous scaly plaque over anterior scalp with thinning of hair.

Investigations

Blood tests for complete blood picture, anti-nuclear factor, thyroid function tests and VDRL were normal. Skin scrapping for fungal element and plucked hair for fungal culture was negative.

Skin biopsy of the bald area showed mucin deposition within follicular infundibulum, above fibrous tracts of alopecia follicle, in concert with a superficial and deep perivascular mixed cell inflammatory infiltrate. There was no evidence of mycosis fungoides or fungal infection in the biopsy. The histopathology was diagnostic of Alopecia mucinosa.

Progress

Patient was given 5% cetrimide shampoo and topical steroid (synalar vioform cream). His alopecia recovered one year later but relapsed this year.

Discussion

In alopecia, the pattern of inflammatory infiltrate is useful in differentiating the diagnosis. In lichen planus, there is a 'top heavy' pattern of inflammatory infiltrate. In lupus erythematosus, there is a band-like infiltrate and superficial and deep perivascular and periadnexal infiltrates. In follicular mucinosis, the infiltrates concentrate around the stem and mucin deposits within the hair follicle.

It is important to rule out the possibility of associated mycosis fungoides.

REVIEW ON FOLLICULAR MUCINOSIS (ALOPECIA MUCINOSA)

Follicular mucinosis was first described by Pinkus in 1957¹ when he applied the term alopecia mucinosa to cases of inflammatory plaques with alopecia characterised by mucinous deposits in the outer root sheaths of the hair follicles.

Aetiology

The cause of follicular mucinosis (FM) is unknown. Hempstead and Ackermann² regarded FM as a non-specific follicular reaction.

Clinical features

Alopecia mucinosa usually presents as hypopigmented or erythematous plaques or solitary nodules with scaling, eczematous or flesh-colored follicular papules. The lesions are firm and rough to palpate. They are distributed mainly on the face, neck and scalp, but may appear in any parts of the body. Rarely, the lesions have sensory dissociation, with dysaesthesia to cold³. In these cases, they have to be differentiated from leprosy. In one series, three categories of patients are identified⁴:

1. The **acute benign form** consists of younger patients with few lesions confined to the head and neck, and upper arms. The lesions usually resolve spontaneously in two months to two years. It is the commonest form.
2. The **chronic benign form** affects older patients who have more numerous and widespread lesions and resolution may take several years.
3. In those **associated with mycosis fungoides**, also known as the **symptomatic follicular mucinosis**, the patients are usually older with widespread lesion.

There is a variant that commonly affects girls between 6 to 20-years old presenting with clusters of hypopigmented follicular macules (1-6 cm in diameter) in the outer aspect of the upper arm. Most of the vellus hairs are shed.

Differential diagnoses

Differential diagnoses for alopecia mucinosa consist of eczema, seborrhoeic dermatitis, lichen simplex, pityriasis rosea, traumatic alopecia and tinea capitis.

Histology

The histology characteristically showed collections of mucin within cells of the sebaceous glands and outer root sheath. In those cases associated with mycosis fungoides, there may be dermal infiltrate of atypical cells.

Treatment

The acute benign form usually requires no treatment as most of them will involute spontaneously. Topical and systemic steroid, Dapsone and photochemotherapy (PUVA) had been tried with variable success. For those associated with mycosis fungoides, fractional radiotherapy was given.

Learning points:

It is important to rule out the possibility of associated Mycosis Fungoides in patient with Follicular Mucinosis.

References

1. Pinkus H. Alopecia mucinosa: inflammatory plaques with alopecia characterized by root sheath mucinosis. Arch Dermatol. 1957; 76:419-26.
2. Hempstead RW, Ackermann AB. Follicular mucinosis: a reaction pattern in follicular epithelium. Am J Dermatopathol 1985;7:245-57.
3. Arnold HL Jr. Dysaesthesia in alopecia mucinosa: a possible diagnostic sign. Arch Dermatol 1962, 85:409.
4. Emmerson RW. Follicular mucinosis: a study of 47 patients. Br J Dermatol 1969; 81:395-413.