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Letter

Bitemporal hair loss related to traction alopecia

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ABSTRACT

We present a 24-year-old woman that had received a diagnosis of alopecia areata in the past and was treated with topical corticosteroids with little improvement. Instead, the patient exhibited bitemporal alopecia of one year of evolution related to traction alopecia. Traction alopecia is characterized by localized hair loss related to persistent excessive traction. Although it is initially a reversible condition, if this excessive traction is not removed permanent alopecia may develop.

Keywords: Traction alopecia ; trichology; alopecia; hair; hair loss; trichoscopy; focal hypotrichosis; peripilar casts

INTRODUCTION

Traction alopecia is a form of hair loss that may leave permanent alopecia if not resolved at its earlier stages. It is produced by a maintained tension of the hair. Its prevalence is directly linked to the existence of traction hairstyles and is much more frequent in African American women. Cessation of the traction-causing hairstyle is mandatory for the resolution of this alopecia.

Clinical synopsis

A 24-year-old woman presented to our department with a bifronto-temporal patchy alopecia. The patient noted that the lesions appeared at about the time she received a diagnosis of ulcerative colitis the year before. Previous to the visit to our center she was treated with topical corticosteroids for a clinical suspicion of alopecia areata, with slight improvement. The patient admitted combing her hair daily since adolescence and using a ponytail style.

On examination, the patient presented a localized hypotrichosis on both frontotemporal regions. Fringe sign was present (Figure 1).

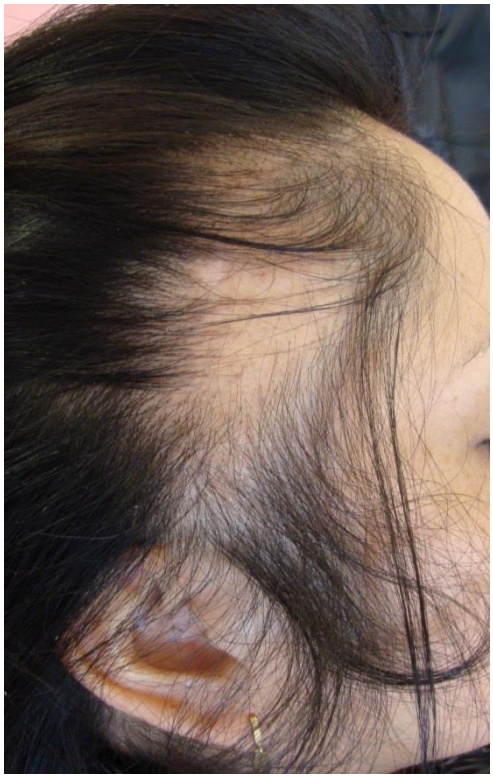

Figure 1. Clinical Image. Marginal alopecia with a fringe of finer hair at the hairline

Folliculitis was not detected. Hair pull test was negative. No other locations were affected. Trichoscopy examination revealed hair casts encircling the hair near the alopecic patch (Figure 2).

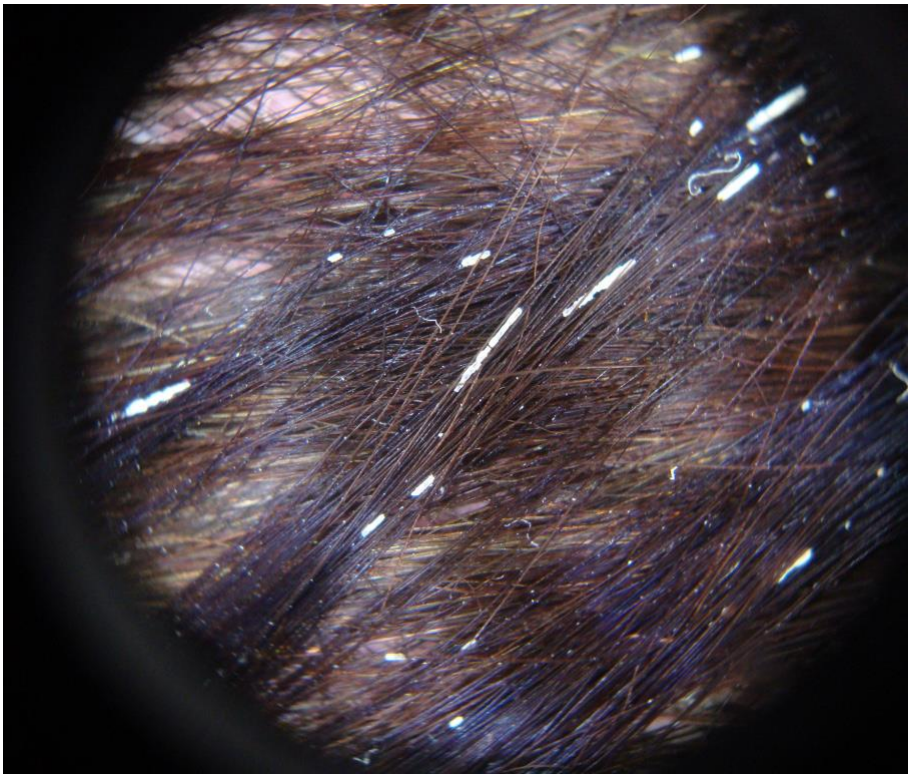

Figure 2. Trichoscopy. Peripilar white casts.

A clinical diagnosis of traction alopecia was made. The patient was instructed to cease combing her hair with the mentioned hairstyle and topical 5% minoxidil solution was initiated daily. At the follow-up visit, three months later, the patient experienced a significant improvement.

DISCUSSION

Traction alopecia is a biphasic form of hair loss. It behaves initially as a non-cicatricial type of alopecia and, in later stages, as a scarring alopecia. It usually presents in middle-age African American women as a progressive frontal or bitemporal patchy alopecia [1].

Persistent pulling force applied to the hair is the main cause of traction alopecia [2]. Initially, the hair loss is reversible but due to the chronic inflammation secondary to persistent trauma a scarring alopecia may develop. Recently, other factors involved in its pathogenesis have also been described [3].

Clinical findings of traction alopecia typically include inflammatory papules and pustules (traction folliculitis). Reduced hair length, caliber and density and alopecic patches appear chronically. It may affect any hair-bearing area subjected to traction.

The appearance of the “fringe sign”; persistence of residual hairs at the margin of the anterior hairline, is characteristic [4].

A diagnosis of traction alopecia can usually be made based upon clinical evaluation of the patient. Visualization of perifollicular casts with trichoscopy supports its diagnosis [5, 6]. Hair casts are cylindrical concretions that envelop hair shafts and are present in other conditions such as psoriasis or seborrheic dermatitis. Nevertheless, traction-induced hair casts typically are constituted by the outer and/or inner root sheath, encircle single hair shafts, are easily movable, have little or none parakeratosis and are more prevalent in young women [7, 8].

If diagnosis is uncertain a skin biopsy of the center of the alopecic area should be performed. Dermathopatologists may require two biopsies for examination of both vertical and horizontal sections. Histopathological findings of traction alopecia are not specific, depend upon its stage, and require clinical correlation [9]. Initially, a perifollicular chronic inflammation accompanied with trichomalacia and preserved sebaceous glands is present. Finally, fibrous tracts occupy the dermis and dermal inflammation is absent.

A differential diagnosis of alopecia areata, frontal fibrosing alopecia, triangular temporal alopecia or trichotillomania may be considered. Alopecia areata has typically a sudden onset, multifocal affectation, association with other autoimmune disorders and presence of exclamation point hairs on trichoscopy. Frontal fibrosing alopecia seldom affects in a patch pattern and in contrast with traction alopecia, eyebrows and corporal hair may also be affected. Facial papules and depression of frontal veins are also associated. Temporal triangular alopecia appears as a lancet-shaped lesion in the temporal area that persists without changes for life since birth or childhood. Patients affected with trichotillomania, have usually its marginal hairline spared. In addition, trichoscopy shows broken hair shafts at various longitudes with signs of irritation or trauma of the scalp.

Recommendations in the literature regarding the management of traction alopecia are primarily based on case reports and expert opinion. Owing to the reversibility of the follicular damage during its earlier stages, hair regrowth is possible. Discontinuation of the traction hairstyle is the most important intervention. If clinical examination reveals traction folliculitis, topical or intralesional corticosteroid therapy or oral antibiotics are useful to reduce its inflammation. Topical minoxidil can also be used if no inflammatory lesions are present in an attempt to convert miniaturized hairs to terminal hairs [10].

When the scarring alopecia is established, in addition to cessation of traction hairstyle, topical minoxidil might also be considered. Cosmetic camouflage of hair loss and hair transplantation are other alternatives.

Conclusion

Traction alopecia is an uncommon form of alopecia in Caucasian patients. It may mimic other alopecia affecting in a patch pattern. A guided clinical history is often the key to diagnosis.

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