

A young woman with bitemporal hair loss

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A woman has slowly progressive hair loss over both temporoparietal areas of her scalp. What is the cause of this hair loss?

Over a 10-year-period, a 29-year-old woman had developed a marked decrease in the density of hair over both temporoparietal areas of her scalp (Figure 1). The hair loss had been slowly progressive. The hairline was preserved and the density of the hair over the occipital and vertex areas was relatively unaffected. Examination of the scalp revealed hairs of differing diameter, but no pustules or hair tufting. Many of the follicular orifices were lost (Figure 2). Scalp biopsy showed a decreased number of follicles, which were irregularly distributed and extended to variable depths in the scalp. There were increased fibrous tracts but no significant perifollicular inflammation (Figure 3).

Differential diagnosis

A number of processes may produce segmental decrease in hair density over the temples.

- **Pattern or androgenetic alopecia** typically involves the frontovertex areas of the scalp, but it may extend to the temporoparietal areas. The process usually has a later age of onset than is seen in this case, and the thinning is accentuated over the central scalp. Scalp biopsy shows miniaturisation of follicles; these may

eventually result in follicular loss but not until a later age.

- **Alopecia areata** can involve the marginal hairline of the temporoparietal areas (ophiasis pattern) and is associated with areas of complete hair loss and dystrophic exclamation-mark hairs. Scalp biopsy is helpful because peribulbar follicular lymphocytic inflammation is seen in alopecia areata.
- **Triangular alopecia** is a rare disorder. It is usually unilateral but may be bilateral. It has an earlier age of onset than is seen in this case. The alopecia is usually associated with complete loss of hair in a segmental triangular distribution localised to the temples. Scalp biopsy shows a marked decrease in the number of follicles.
- **Chronic traction alopecia** is the correct diagnosis. It can be seen in women who pull their hair back tightly for styling. The distribution of hair loss is usually localised to areas of maximum tension, such as the temples. Scalp biopsy initially may show acute injury and conversion of follicles to involuting ones (telogen or catagen follicles) containing hair debris, but in time the follicles may involute permanently and be replaced by fibrous tracts.

Treatment

Treatment of chronic traction alopecia must focus on reducing the traction and changing the hairstyle before permanent alopecia develops.



Figure 1. Marked decrease in the density of hairs on the temporoparietal area of scalp.

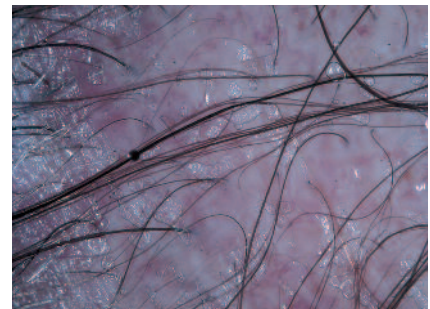


Figure 2. A close up of the scalp revealing hairs of variable diameter, thin dystrophic hairs and loss of follicular orifices.

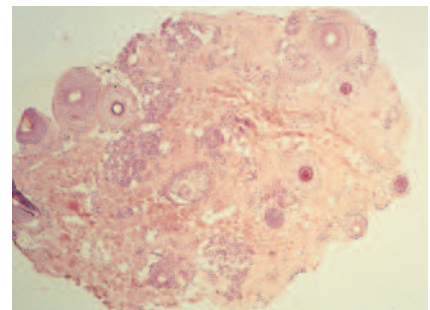


Figure 3. Scalp biopsy (cut as transverse skin sections) demonstrating an irregular distribution of follicles, which are of different diameter and at different levels with no significant follicular inflammation.

Keypoint

Permanent follicular injury may occur as a result of chronic traction, and the clue to the diagnosis may be the distribution of hair loss.

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