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Image in Dermatology

## Trichorrhhexis Nodosa of the Eyebrows

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## Case report

A 37-year-old man presented with a 5-year history of areas of alopecia on the lateral third of both eyebrows, without any other associated symptoms. The patient denied any past medical history of trauma or direct intervention to the affected area (Fig. 1A). Videodermoscopy revealed short hairs with fractures at both distal and proximal ends (Fig. 1B). Light microscopy (Fig. 1C) and electron microscopy (Fig. 1D) demonstrated fracture zones with frayed “paintbrush-like” ends, confirming the diagnosis of trichorrhhexis nodosa (TN).

TN is a hair shaft dysplasia characterized by marked fragility of the hair cuticle. Clinically, it presents as areas of reduced hair density, with short, thin hair shafts. Localized forms are usually acquired, most commonly resulting from extrinsic physical or chemical damage to the hair fiber, which may be severe and/or permanent. Occasionally, TN is associated with systemic disorders such as hypo- or hyperthyroidism, iron deficiency, malnutrition, argininosuccinic aciduria, and certain genodermatoses. The exclusive involvement of the lateral third of the eyebrows warrants consideration of other conditions included in the differential diagnosis of madarosis, such as frontal fibrosing alopecia, alopecia areata (Hertoghe sign), atopic dermatitis, or cutaneous syphilis (omnibus sign). Treatment should focus on addressing the underlying etiology.



Fig. 1.

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