Congenital Triangular Alopecia: A Brief Report

Sir,

A 2-year-old Chinese boy was referred to our clinic because of alopecia over his left frontotemporal area from birth. He was delivered at term by spontaneous vaginal delivery, without any instruments or fetal scalp electrodes being used during delivery, with no history of trauma over his scalp, and without being subjected to therapeutic intervention for the alopecia. His general physical examination and past medical record were absolutely normal.

A skin examination revealed an obvious patch of alopecia over the left frontotemporal region of his scalp [Figure 1]. The patch was triangular to oval and approximately 3.0 cm × 1.5 cm in size. Fine vellus hairs were present in the bald area, without perifollicular inflammation and scarring. The margin of the alopecia patch was clear cut. Hair pull test was negative. On dermoscopic examination, the alopecic area contained normal follicular openings with exclusively vellus hairs (the terminal-vellus ratio was 2.8:97.2) [Figure 2]. No yellow spots, exclamation mark hairs, or dystrophic hairs were detected. Based on the distinct clinical appearance and medical history, a diagnosis of congenital triangular alopecia (CTA) was made.

In 1905, Raymond Sabouraud first described CTA, a circumscribed, noncicatricial alopecia of unknown pathogenesis. CTA usually appears at 2–5 years of age, with about one-third of the cases noticed at birth. Its actual incidence is believed to be underestimated because only a few patients seek medical attention and many patients are misdiagnosed.[1]

Clinically, CTA is asymptomatic and typically affects the frontotemporal region. Most patients with CTA present with unilateral hair loss. However, bilateral cases can occur.[2] A noninvasive examination tool, dermoscope, is very helpful for the diagnosis and differential diagnosis.

Figure 1: A triangular-to-oval patch of alopecia over the left frontotemporal region of the patient's scalp

Figure 2: Dermoscopy revealed normal follicular openings with vellus hairs in the area of alopecia, and no yellow and/or black dots were observed
Letters to Editor

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Conflicts of interest

There are no conflicts of interest.

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of CTA. Dermoscopy would reveal normal follicular openings and vellus hairs in the patch of alopecia in the absence of yellow and black spots and dystrophic hairs. These features distinguish CTA from other noncicatricial circumscribed alopecias that occur in infants including aplasia cutis congenita, alopecia areata, and trichotillomania.\[3\]

There is no specific treatment for CTA. Therefore, it is important for clinicians to be aware of this condition in order to facilitate proper diagnosis and avoid unnecessary treatments. Surgical excision of the alopecia lesion may provide a cosmetic recourse.

CTA remains unchanged throughout life. It might be interesting to imagine that the alopecic area of CTA maintains vellus island for decades, whereas the surrounding terminal hairs undergo life-long cyclic transformations under the influence of potent hair cycle modulators (transcription factors, growth factors, cytokines, neuropeptides, enzymes, and circadian clock).\[4\] It must be also emphasized that hair follicles in the alopecic area of CTA are miniaturized and are replaced by vellus hair follicles histologically, a characteristic similarly observed in androgenetic alopecia (AGA).\[5\] CTA also provides opportunities to interrogate the complex regulation of hair follicle cycle and patterned transformation. Therefore, a greater understanding of hair follicle cycle and patterned transformation regulation may pave the way for the development of novel therapies for CTA and AGA.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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