Temporal Triangular Alopecia

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A 23-year-old man presented with a single, asymptomatic, oval patch of circumscribed hair loss of size 3 cm × 2 cm on the left temporal scalp, for a duration of 10 years [Figure 1]. The patient correlated the occurrence of this patch to trauma. There was no history of spontaneous regrowth, progression, or of manipulation. Dermoscopy revealed preservation of follicles with vellus hair present throughout the lesion as well as some empty follicles [Figure 2]. No black dots, yellow globules, broken hair, exclamation mark hair, or structureless areas were seen. There was no erythema or scaling either on clinical or dermoscopic examination. No response was seen with betamethasone valerate 0.1% cream applied once daily for 6 weeks, substantiating the diagnosis of congenital triangular alopecia/temporal triangular alopecia.

Congenital triangular/temporal triangular alopecia/Brauer nevus is a benign nonscarring, nonprogressive alopecia with an incidence of 0.11%.[1] It occurs most commonly in the frontotemporal region and can develop at birth (36.5%), between 2 and 9 years of age (58.8%) or in adulthood between 20 and 30 years of age (3.8%).[2] Fifteen percent of cases have associated disorders like phakomatosis pigmentovascularis, Down syndrome, Dandy–Walker malformation, mental retardation and seizures, heart diseases and bony abnormalities.[2] Temporal triangular alopecia has been speculated by Happle to be inherited as a paradominant trait, whereas others have hypothesized an unknown, localized process of irreversible miniaturization of hair when it occurs later in life.[3] Dermoscopic features have been described as presence of vellus hair with variable length and empty follicles in all patients, as well as honeycomb pattern and arborizing red lines in one-third of cases.[4] The vellus hair was seen throughout the patch in our case, as well as empty follicles, similar to a previous report.[5] The absence of black dots, yellow dots, broken hair or exclamation mark hair helps to differentiate from alopecia areata [Table 1].[5]

The importance of correct diagnosis of the condition lies in avoiding unnecessary intervention as it remains unchanged throughout life. If cosmetic coverage is desired, follicular unit transplantation or surgical excision of smaller lesions may be done.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the

Figure 1: Well-circumscribed patch of non-scarring alopecia on left temporal scalp

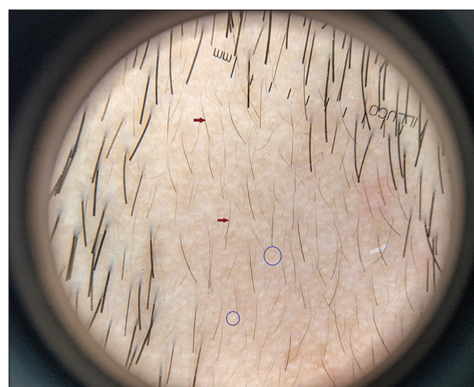

Figure 2: Dermoscopy showing vellus hair throughout the lesion (red arrows) with few empty follicles (blue circle), surrounded by terminal hair of normal scalp (IDS-1100, 10×, contact mode, polarized)

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Table 1: Differential diagnosis of a localized patch of non-scarring alopecia

Diagnosis	Temporal triangular alopecia	Alopecia areata	Trichotillomania	Aplasia cutis congenita	Tractional alopecia
Age group	At birth: 36.5% 2-9 years: 58.9% 20-30 years: 3.8%[2]	Any age Peak incidence 2nd-3rd decade of life	Any age Typically 5-12 years	At birth	All ages, especially school age; certain ethnicities, e.g., Africans, Sikhs
Site	Frontotemporal region of scalp	Any region of scalp Eyebrows/ eyelashes/axilla/ pubis/body hair may be involved	Frontoparietal region and vertex of scalp; often contralateral side of dominant hand Rarely eyebrows/ eyelashes/beard/ pubic hair	Scalp: 70%, usually near vertex	Band-like loss of hair along the temporoparietal margin or frontal hairline
Clinical features	Single patch[2] Well-defined Triangular patch Static in size	Multiple patches Well-defined, smooth Round shape Spontaneous regrowth seen	One to few patches Irregular in shape with broken hair of varying lengths Excoriations and post-inflammatory hyperpigmentation may be seen H/o manipulation	Usually solitary Well-circumscribed Oval or linear membranous defect Collar of hair seen	Sparsening of hair in patterned distribution Ill-defined Fringe sign Headache/stinging sensation
Dermoscopy	Vellus hair with varying lengths throughout the patch, empty follicles[5]	Exclamation mark hair, black dots, yellow dots, regrowing hair	Flame hair, broken hair, V- sign, tulip hair, perifollicular hemorrhage	Hair bulbs visible through semi-translucent epidermis, radially arranged at margin	Broken hair, black dots, clustered short vellus hair, yellow dots, atypical red vessels, hair casts
Histopathology	Absence of mature terminal hair and the presence of vellus hair[2] Total number of follicles are normal.	Peribulbar lymphocytic or mixed inflammatory infiltrate ('swarm of bees'). Inversion of anagen: telogen ratio and miniaturization.	Distorted follicular anatomy, pigment casts, melanin pigment in the collapsed fibrous sheath, perifollicular and intrafollicular hemorrhage. Increase in catagen follicles.	Thinned or absent epidermis and dermis. Loss of adnexal structures	Early: increased numbers of telogen and catagen hair, trichomalacia Late: Decrease in terminal follicles, replacement by fibrous tracts
Treatment	No treatment necessary Does not respond to topical steroids Excision Follicular unit transplantation	Spontaneous regrowth can occur Topical and oral immunosuppressives and immunomodulators	Habit reversal therapy Selective serotonin reuptake inhibitors N-acetyl cysteine	No treatment necessary Excision	Eliminating traction

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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Nil.

Conflicts of interest

There are no conflicts of interest.

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