

(Table 1). All portions of this study were conducted as a part of an institutional review board–approved study at Washington University School of Medicine.

We found a younger age of HS onset in our patients with DS, and an overall increased prevalence of DS in our HS population. The mean age of HS symptom onset in those with DS was 14.9 years compared with 23.3 years ($P = .018$) for those without DS. We were able to obtain age of HS symptom onset in only 8 of 16 of the patients with DS. However, only 2 of 16 of patients with DS presented with HS after the age of 19 years—the median age of HS onset in general. The 2.4% prevalence of DS in our population of patients with HS was approximately 29 times higher than the 0.083% prevalence of DS in the general population.⁵ Although this relationship may be falsely exaggerated as a result of referral bias, we believe that bias alone could not account for such a massive increase in prevalence.

These results support the notion that DS is associated with the development of HS, particularly at a younger age. Further investigation into the nature of the relationship between these 2 disease entities is warranted.

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Clinical and trichoscopic characteristics of temporal triangular alopecia: A multicenter study



To the Editor: Congenital triangular alopecia, also called temporal triangular alopecia (TTA), is an asymptomatic permanent circumscribed noncicatricial alopecia.^{1,2} It manifests as an alopecic patch without any underlying cutaneous alterations usually confined to one frontotemporal region of the scalp. Fine vellus hairs may be present. TTA is usually noted in children between 3 and 6 years of age and has been associated with Down syndrome, leukonychia, sectorial hyperpigmentation of the iris, woolly hair, mental retardation, epilepsy, and other malformations, such as Dandy-Walker and LEOPARD syndromes.

The genetic basis of TTA is unknown but a paradigmatic trait is suspected.³ The major differential diagnoses are the non-cicatricial circumscribed alopecias including alopecia areata, trichotillomania, traction alopecia, and aplasia cutis congenita.⁴ To our knowledge neither large series of patients with TTA nor the dermoscopic features of the condition have been published.^{5,6}

The objective of this observational multicenter study was to describe the clinical and trichoscopic findings of patients with TTA. Thirty-one patients with TTA were seen in 2014 at 6 hospitals in Spain: Jaen, Seville, Madrid, Barcelona, Valencia, and Granada. Variables were (1) demographics: age, sex, height, weight, body mass index; (2) clinical characteristics: age at diagnosis, shape (triangular, oval, lancet; unilateral/bilateral), and size (maximum diameter); (3) dermatologic and nondermatologic comorbidities; (4) trichoscopic features with non-polarizing or polarizing dermoscope; (5) treatment regimen: expectant, topical corticosteroids, local injection of corticosteroids, topical minoxidil, surgery; (6) efficacy of treatment: patient's perception and dermatologist's perception.

Table I. Clinical characteristics of patients with temporal triangular alopecia

Clinical characteristics		Total	Male (N=14) (45.2%)	Female (N=17) (54.8%)
Age of diagnosis N=31	Total	X=1.9 yr S=4.2 Range=0-18	X=0.9 yr S=1.5	X=2.8 yr S=5.5
Shape N=31	Triangular	15 (48.4%)	7 (50%)	8 (47%)
	Oval	12 (38.7%)	5 (35.7%)	7 (41.2%)
	Lancet	4 (12.9%)	2 (14.3%)	2 (11.8%)
Maximum diameter N=26	<16 yr N=20		X=3.6 cm (S=1.2)	
	>16 yr N=6		X= 3.9 cm (S=0.6)	
	Total		X=3.67 cm (S=1.15)	
Unilateral/bilateral N=30	Unilateral	28 (93.3%)	13 (92.9%)	15 (88.2%)
	Bilateral	2 (6.7%)	1 (7.1%)	1 (5.9%)
Side N=28	Left	21 (75%)	8 (57.1%)	13 (76.5%)
	Right	7 (25%)	4 (28.6)	3 (17.6%)

X, Mean; S, standard deviation; N, number of patients.



Fig 1. Temporal triangular alopecia. Clinical appearance of four cases.

Statistical analysis was performed using SPSS 15.0 software. Seventeen females and 14 males were included. The major clinical features are listed in Table I. More than half of patients (n=19) were diagnosed at birth. Triangular shape was the most prevalent and was seen in 15 cases (48.4%), followed by oval shape in 12 cases (38.7%) and lancet shape in 4 cases (12.9%). Twenty-one of 28 cases were on

the left side and 7 cases were on the right (Fig 1). The rate of bilateral occurrence was 6.5% (2 cases). Of 26 lesions measured, mean maximum diameter was 3.67 cm. Mean size of lesions was 3.6 cm in 20 patients younger than 16 years old and 3.9 cm in patients older than 16 years. Only 5 cases (16.1%) presented with nondermatologic comorbidities, including prematurity at birth, Down syndrome,



Fig 2. Temporal triangular alopecia. Trichoscopic signs observed in our patients. Red arrow, white hairs; red circle, diversity of diameter; blue arrow, vellus hair; green arrow, empty follicles.

Table II. Trichoscopic features observed in temporal triangular alopecia

Trichoscopic sign (N:19)	Frequency	<16 years (N=13)	≥16 years (N= 6)
White hairs	18 (94.7%)	12 (92.3%)	6 (100%)
Diversity of diameter	18 (94.8%)	12 (92.3%)	6 (100%)
Vellus hair surrounded by terminal hair	16 (84.2%)	12 (92.3%)	4 (66.6%)
Empty follicles	12 (63.1%)	6 (46.1%)	6 (100%)
White dots	10 (52.6%)	7 (53.8%)	3 (50%)
Arboriform vascular pattern	4 (21%)	0	4 (100%)
Yellow dots	3 (15.8%)	0	3 (100%)
Epidermal scale	3 (15.8%)	2 (15.4%)	1 (16.6%)
Broken hairs	2 (10.5%)	1 (7.7%)	1 (16.6%)
Cadaveric hairs	1 (5.2%)	0	1 (16.6%)
Black dots	1 (5.2%)	0	1 (16.6%)
Exclamation point hairs	0	0	0

and bronchial asthma. One adult patient was referred for deep venous thrombosis and 1 case presented with Gilbert's syndrome. A history of dermatologic comorbidities, including atopic dermatitis (14/17), psoriasis, contact dermatitis, amyloidosis, SAHA syndrome (seborrhea, acne, hirsutism, and alopecia), and vitiligo, was present in 54.8% (17/31) of subjects.

Trichoscopy was performed in 19 cases (61.3%), mostly using a contact dermoscope (16 cases) (Fig 2). Trichoscopic features are listed in Table II. White hairs and diversity of diameter were the most frequently features observed (18/19), followed by

vellus hair (16/19), empty follicles (12/19), and white dots (10/19). Diagnosis was made by clinical appearance, and biopsy was not necessary. No family history of TTA was obtained. No improvement with expectant treatment was apparent after a mean of 81.96 months. Five patients (16.1%) used topical corticosteroids and three patients were treated with intralesional corticosteroids (triamcinolone acetonide) with no evidence of improvement. One patient experienced improvement with topical minoxidil 5% and topical corticosteroids after 6 months of treatment. No patients underwent surgery.

Based on our study, TTA affects both sexes with a slight predominance in females. The left side is most often affected but it can be bilateral. Most cases are sporadic and have a triangular shape averaging 3.6 cm in length; other malformations are generally not found. It is usually diagnosed during the first 2 years of life. Trichoscopy is a useful tool for the diagnosis of uncertain cases and may reveal white hairs, vellus hairs, and hairs of diverse diameters. There is no consistently effective treatment.

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Effectiveness of the 308-nm excimer laser on hypopigmentation after lichen striatus: A retrospective study of 12 patients



To the Editor: Lichen striatus (LS) is a self-limited skin disease that primarily affects children. However, LS frequently leaves residual hypopigmentation, which has been reported in 25-59.1% of LS patients.¹ Although the exact pathogenesis of the hypopigmentation after LS has not been established, histopathologic studies suggest that intense lichenoid inflammation attacks melanocytes in the basal layer of the epidermis. Existing treatments for LS are inadequate. Patrizi et al² described 36 patients with LS who were treated with topical corticosteroids, which were not thought to influence the duration of the postinflammatory hypopigmentation.

Growing evidence suggests that 308-nm excimer lasers are effective for treating a variety of hypopigmentation disorders, including focal vitiligo, chemical leukoderma, pityriasis alba, hypopigmented scars, and nevus depigmentosus.^{3,4} The laser induces melanocyte proliferation, migration, and differentiation, and has the additional advantage of allowing targeted treatment of affected areas only.⁵ The most commonly reported side effects are post-treatment erythema and hyperpigmentation localized to the treated areas.⁴

We conducted a retrospective chart and photographic review of 12 patients with hypopigmentation after LS who underwent treatment with 308-nm excimer laser (XTRAC; PhotoMedex) from May 2009 to December 2014. We included all of the patients with hypopigmentation after LS who were treated with the laser for at least 4 weeks. The treatment was started at 125 or 150 mJ/cm² depending on the site and Fitzpatrick skin type, and was administered twice weekly. The dose was increased by 50 mJ/cm² at each session until posttreatment erythema occurred. Thereafter, the dose was kept constant at the minimal erythema dose. If the erythema persisted for more than 48 hours, the treatment was suspended until the erythema resolved and was resumed with a dose reduction of 50 mJ/cm².

Table I summarizes the patient characteristics and clinical outcomes. Eleven patients (91.7%) demonstrated complete response to the excimer laser treatment after a median treatment duration of 3.3 (range 1.9 to 6.2) months and a median of 17 (range 9 to 35) treatment sessions, while the remaining 1 achieved 85% repigmentation following 202 treatments delivered over 41.9 months (Fig 1). Persistent