

Epidemiological, Clinical, Dermoscopic Findings, and Management of Perinevoid Alopecia

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Introduction

Perinevoid alopecia (PA) is a particularly rare variant of alopecia areata (AA) associated with a central pigmented nevus [1,2]. It appears to be a nevocentric phenomenon, similar to halo nevus, and caused by an inflammatory response against hair follicles, nevus cells, and melanocytic structures [2,3]. Research on PA is limited, particularly concerning dermoscopy and therapy. In this article, we aimed to describe the epidemiological, clinical, and dermoscopic findings of PA and analyze its management in a multicenter retrospective study.

Case Presentation

We included five patients - most were male (4/5), with a median age of 24 years (range: 9–72). Fitzpatrick skin

phototypes ranged from II to IV. The average duration of the disease was 4 months (range: 3–26). Two patients had data on the nevus duration (3 and 9 years), and one patient had a positive family history of AA. Oval-shaped hair loss occurred in three patients (3/5), with an average size of 3 cm (range: 1.6–3.5). The occipital area was the most commonly affected (3/5), and the predominant trichoscopy finding was vellus hair (5/5), followed by short regrowing hairs, black dots, and broken hairs (4/5). Two patients had a positive pull test. The median nevus size was 0.3 cm (range: 0.1–0.5), and the most prevalent dermoscopic pattern was homogeneous-globular (2/5). Regarding treatment, topical and intralesional corticosteroids were administered to three of the five subjects. The same three patients experienced complete hair regrowth after topical or intralesional corticosteroids.



Figure 1. (A) Alopecia patch centered by a melanocytic nevus, clinically consistent with perinevoid alopecia. (B,C) Trichoscopy of a perinevoid alopecia patch showing yellow dots and vellus hair, in addition to a melanocytic lesion with a homogeneous-globular pattern. (D) A round area of hair loss with a central pigmented nevus in the mildscalp. (E) Trichoscopy of a perinevoid alopecia patch showing typical findings of alopecia areata such as yellow and black dots, vellus hairs, short regrowing hairs, broken hairs, and circular hairs. (F) Trichoscopy after treatment with infiltrative and topical corticosteroids showing complete hair regrowth.

Conclusions

PA etiopathogenesis is attributable to an autoimmune response against hair follicles and nevus cells mediated by T cell epitopes–melanocyte complexes [4]. Although the autoimmune process resembles AA, the exact antigen remains unclear [1].

The most common findings on trichoscopy in our sample were vellus hairs, short regrowing hairs, black dots, and broken hairs, which is in agreement with previous case reports [2]. Since those features are also prevalent in AA, PA seems to be a subtype of that condition, highlighting the value of trichoscopy in the physician diagnostic tools.

Some publications on PA describe complete hair regrowth after surgical excision of the nevus [1,2,5]. In contrast, our patients underwent topical therapy with 0.05% clobetasol propionate cream, with or without intralesional betamethasone at monthly intervals (betamethasone 0.05 mL + saline 0.95 mL - 0.05 mL per site spaced 1 cm apart) [6]. Intralesional corticosteroids were also effective [5]. Our research underlines the efficacy of such a non-invasive

approach, considering how similar PA and AA are. Limitations of this study include the lack of standardization of dermoscopy imaging and the small sample size, which might not be surprising considering the condition's rarity.

In summary, our study has addressed the epidemiology, clinical, and dermoscopic findings, as well as PA therapeutic approach. Topical or infiltrative corticosteroids have proven to be an effective and less invasive option compared to nevus surgical excision. Dermatologists should be vigilant regarding this unique presentation of AA for proper management. Further studies are warranted to validate our findings and detail additional characteristics of this atypical condition.

Ethics Statement: The patients in this manuscript have given written informed consent to publication of their case details.

Data Availability Statement: All data generated or analyzed during this study are included in this article. Further enquiries can be directed to the corresponding author.

**Table 1. Epidemiological, Clinical, Dermoscopic Findings, and Management of Perinevoid Alopecia.**

Characteristics	Statistics or Categories	Obtained Values (N = 5; 100.0%)
General information		
— Male gender: N (%)		4 (80.0)
— Age (years)	Mean//Median	34.4//24
	Minimum; Maximum	9; 72
— Phototype (1-2-3-4-5-6): N (%)		
	– 2	2 (40.0)
	– 3	1 (20.0)
	– 4	2 (40.0)
— Duration of disease/alopecia (months) ⁽¹⁾	Mean//Median	9.5// 4
	Minimum; Maximum	3; 26
— Family history of alopecia areata: N (%)	– Positive	1 (20.0)
— Concomitant diseases: N (%)	– Hypertension	1 (20.0)
	– Depression	1 (20.0)
Clinical features of hair loss patch		
— Positive pull test: N (%)	–	2 (40.0)
— Shape of hair loss patch: N (%)	– Oval	2 (40.0)
	– Round	3 (60.0)
— Size of hair loss patch (cm)	Mean//Median	2.7//3
	Minimum; Maximum	1.6; 3.5
Clinical features of nevus		
— Size (cm)	Mean//Median	0.4//0.3
	Minimum; Maximum	0.1; 0.5
— Asymmetry: N (%)		1 (20.0)
— Irregular borders: N (%)		1 (20.0)
— More than one color: N (%)		1 (20.0)
— Years since the nevus existed: N (%)	– 3	1 (20.0)
	– 9	1 (20.0)
	– Unknown	3 (60.0)
Scalp area affected: N (%)	– Occipital	3 (60.0)
	– Midscalp	1 (20.0)
	– Temporal	1 (20.0)
Trichoscopic findings: N (%)	– Vellus hairs	5 (100.0)
	– Small hair in regrowth	4 (80.0)
	– Black dots	4 (80.0)
	– Broken hair	4 (80.0)
	– Yellow dots with vellus hair	3 (60.0)
	– Circular hairs	3 (60.0)
	– Empty yellow dots	2 (40.0)
	– Exclamation mark hairs	2 (40.0)
	– Pigtail hair	1 (20.0)
	– Pili torti	1 (20.0)
	– Branching tortuous vessels	1 (20.0)

Table 1 continues

Table 1. Epidemiological, Clinical, Dermoscopic Findings, and Management of Perinevoid Alopecia. (continued)

Characteristics	Statistics or Categories		Obtained Values (N = 5; 100.0%)
Dermoscopic pattern of nevus: N (%)	– Homogeneous-globular		2 (40.0)
	– Reticular		1 (20.0)
	– Homogeneous		1 (20.0)
	– Reticular-globular		1 (20.0)
Treatment: N (%)			
— Topical steroid	– Clobetasol cream once a day	3 months	3 (60.0)
		24 months	1 (20.0)
— Intralesional steroids	– Betamethasone once a month per session	3 sessions	2 (40.0)
		6 sessions	1 (20.0)
— Topical minoxidil	– Minoxidil 5% (twice daily) for 4 months		1 (20.0)
— Systemic steroids	– Prednisone (60mg twice/week) for 6 months		1 (20.0)
Outcome: N (%)	– Complete hair regrowth		3 (60.0)
	– Drop out		2 (40.0)

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