

## Trichoscopic Features of Lichen Planopilaris versus Frontal Fibrosing Alopecia: A Systematic Review

Shreya K Gowda<sup>1</sup>, Enzo Errichetti<sup>2</sup>, Biswanath Behera<sup>1</sup>, Vishal Thakur<sup>1</sup>, Sonika Garg<sup>1</sup>, Deepak Kumar Sahu<sup>1</sup>, Madhusmita Sethy<sup>3</sup>, Pavithra Ayyanar<sup>3</sup>

1 Department of Dermatology and Venereology, All India Institute of Medical Sciences, Bhubaneswar, India

2 Institute of Dermatology, "Santa Maria della Misericordia" University Hospital, Piazzale Santa Maria della Misericordia, Udine, Italy

3 Department of Pathology, All India Institute of Medical Sciences, Bhubaneswar, India

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**Corresponding Author:** Dr. Biswanath Behera, Associate Professor, Department of Dermatology and Venereology, All India Institute of Medical Sciences, Bhubaneswar, India-751019, Phone +91-7978351200. E-mail: [biswanathbehera61@gmail.com](mailto:biswanathbehera61@gmail.com)

Dr. Enzo Errichetti, Associate Professor, Institute of Dermatology, "Santa Maria della Misericordia" University Hospital, Piazzale Santa Maria della Misericordia, Udine, Italy, E-mail: [enzoerri@yahoo.it](mailto:enzoerri@yahoo.it)

**ABSTRACT Introduction:** Lichen planopilaris (LPP) and frontal fibrosing alopecia (FFA) are primary scarring alopecias that few authors consider the same entity, and some consider them different. Only a few reviews focus on trichoscopic findings in delineating these two alopecias.

**Objective:** We describe and summarize the trichoscopic features of both conditions.

**Methods:** We performed an extensive literature search using the PubMed and Google Scholar databases. The Chi-square test was applied to compare the trichoscopic features in LPP and FFA. P-values less than 0.05 were considered statistically significant.

**Results:** Out of 60 articles, 33 (16 LPP, 17 FFA) were considered for quantitative analysis due to availability in English literature with full text. We found that peripilar cylindrical casts and perifollicular erythema with arborizing vessels were predominant features suggesting early LPP. In contrast, yellow dots, perifollicular erythema, and scattered pigmentation suggested active FFA. Shiny-white area was seen in both groups in the inactive stages. The target arrangement of blue-grey dots, milky-red areas, and irregularly arranged white fibrotic dots were seen in late LPP, and black dots, lonely hairs, and loss of vellus hairs were detected in the later stages of FFA. Features such as blue-grey structureless areas, blue-white veil, and variability in morphologies of hair shafts were not significantly different between the two groups.

**Conclusion:** This article provides a comprehensive literature review on the trichoscopic features of LPP and FFA, including comparing the similarities, differences, and peculiarities of both conditions.

## Introduction

Scalp alopecias constitute a major part of routine outpatient dermatological diseases and are broadly divided into scarring and non-scarring types. Scarring alopecia is due to damage to the stem cell niche [1,2]. Primary cicatricial alopecia [PCA] is further subdivided based on the type of inflammatory infiltrate. Among Lymphocytic spectrum, discoid lupus erythematosus, central centrifugal cicatricial alopecia, lichen planopilaris [LPP], pseudopelade of Brocq, frontal fibrosing alopecia [FFA], and alopecia mucinosa are included. Neutrophilic spectrum includes erosive pustular dermatosis, acne necrotica, and acne keloidalis nuchae. A mixed infiltrate is noted in dissecting cellulitis of the scalp and folliculitis decalvans [3]. Even though histopathology (sensitivity of 40% and specificity of 92% in LPP) and direct immunofluorescence (sensitivity of 34% and specificity of 95% in LPP) are recognized as diagnostic tools in delineating the PCA, trichoscopy helps in diagnosing scalp conditions without an invasive procedure and also serves as a prognostic aid during follow-up [4-6].

LPP is the most common etiology of PCA [7]. It can either present as violaceous papules initially, which are later replaced by follicular plugs and scarring, or white smooth atrophic plaques. It involves axillae, limb flexures, and inguinal folds apart from the scalp [6]. LPP is classified into three clinical variants: classical type, FFA, and Graham Little-Piccardi-Lassueur syndrome. Fibrosing alopecia of pattern distribution and cicatricial pattern hair loss are the rare and less common subtypes of LPP. FFA is a chronic, gradually progressive cicatricial alopecia that presents as scalp itching and trichodynia. It is characterized by frontotemporal recession with or without loss of eyebrows and non-inflammatory yellow facial papules. There is dispute over the independent existence of FFA; few authors consider both the same entity, and others consider them different. This study aimed to summarize the trichoscopic features of LPP and FFA and compare their trichoscopic findings in terms of the proportion of the following features: follicular findings, perifollicular features, interfollicular involvement, vascular pattern, and hair shaft abnormalities.

## Materials and Methods

This review included cross-sectional, cohort, and case-control studies, case series, and case reports on both videodermoscopic and handheld trichoscopic findings describing LPP and FFA per the International Dermoscopic Society terms of any skin type. Articles with no full text and not in English were excluded from the analysis. The level of evidence was assessed per the Oxford Centre of Evidence-Based Medicine. Per PRISMA (“Preferred Reporting Items for Systematic Reviews and Meta-Analyses”) guidelines, the systematic review

and analysis were performed. A detailed search in PubMed and Google Scholar was performed, and articles published on LPP and FFA fulfilling the inclusion criteria until September 2023 were analyzed. The search terms used were: “lichen planopilaris” OR “frontal fibrosing alopecia” OR “primary cicatricial alopecia” combined with “dermatoscopy” OR “dermoscopy” OR “trichoscopy” OR “videodermoscopy” OR “videodermatoscopy”. The proportions of trichoscopic features of LPP and FFA were analyzed in five headings: follicular findings, perifollicular features, interfollicular area, vascular pattern, and hair shaft abnormalities. The chi-square test was applied to identify the differences in the prevalence of trichoscopic features in LPP and FFA, and p-values less than 0.05 were considered statistically significant.

## Results

Out of 60 articles, 33 (16 LPP, 17 FFA) articles with full text and in English were included for analysis (Figures 1 and 2). Of the 16 articles pertaining to LPP, eight were cross-sectional, one was case-control, one was a case series, and six were case reports. For FFA, the following were the different types of articles: ten were cross-sectional, two were case-control, two were case series, and three were case reports. Table 1 summarizes the trichoscopic differentiating features of LPP and FFA [8-10].

### Hair Follicular Findings

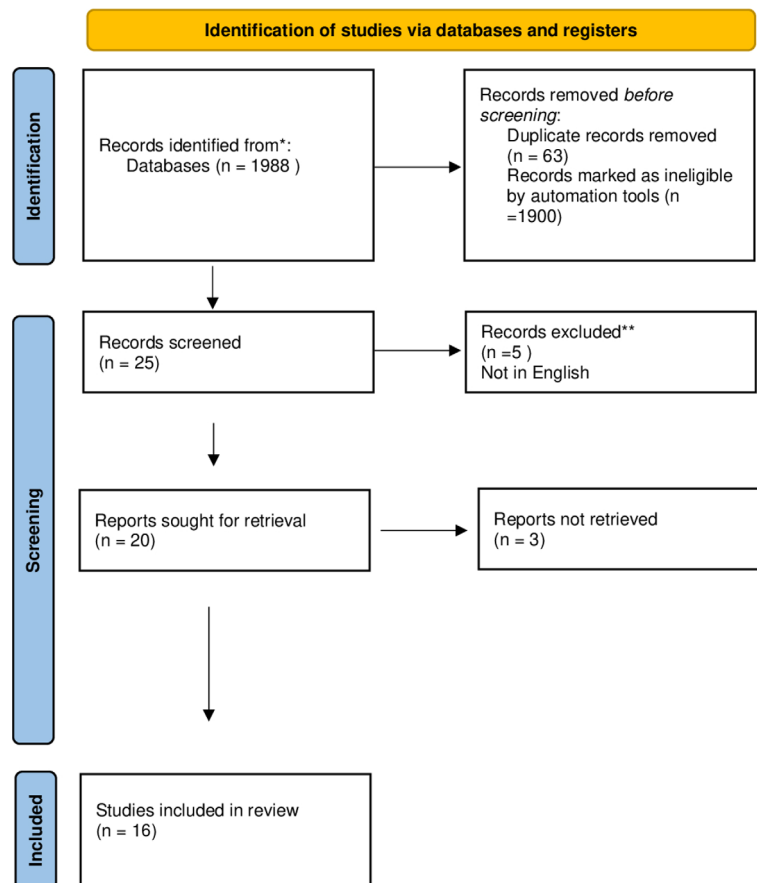
The absence of follicular opening was seen in 40% to 55% of the cases in both groups. The dilated follicular ostia were seen in one LPP case. Pinpoint white dots and fibrotic white dots corresponded to the opening of eccrine glands and the fibrotic hair column, respectively [1,11]. Both pinpoint and fibrotic white dots were significantly higher in the LPP group ( $P < 0.01$ ). Yellow dots were found in both groups, with slight preponderance in the FFA group ( $P < 0.01$ ). Follicular keratotic plugs were significantly seen in the FFA group [12,13].

### Perifollicular Features

Perifollicular erythema was seen in both groups. Peripilar scales were significantly higher in FFA than in LPP, while the perifollicular tubular or cylindrical casts were seen predominantly in LPP ( $P < 0.01$ ) [1,14]. Perifollicular blue-gray dots were seen in both groups, but the distribution of the dots in the “target pattern” was demonstrated in LPP ( $P < 0.01$ ). Perifollicular gray-to-blue-gray structureless areas were seen in the LPP group.

### Interfollicular Involvement

The pigment patterns found in the analysis were honeycomb ( $P < 0.01$ ) and scattered blue-gray pigmentation ( $P < 0.01$ ),



**Figure 1.** Flowchart of systematic review for lichen planopilaris.

\*Pubmed and Google scholar data base

\*\*Not English literature

Full text not available

which corresponded to increased melanin in epidermal rete ridges and melanophages, respectively, on histopathology, and these features were seen in LPP. Honeycomb pigmentation can be seen even in normal individuals due to chronic sun exposure [1,14]. Pink-white ( $P = 0.13$ ) and milky-white ( $P < 0.01$ ) background pigmentation were seen in FFA and LPP, respectively. The blue-white veil was seen in a few cases of LPP [1,15]. Another feature in LPP in the interfollicular area was scattered blue-gray dots ( $P < 0.01$ ). An interfollicular structureless white area in scarring alopecias corresponded to acanthotic epidermis and dermal fibrosis. Interfollicular scale was seen in FFA. Interfollicular erythema was seen significantly in LPP. Interfollicular brown and red globules and blue structureless areas were seen significantly in LPP [1,16].

### Blood Vessel Patterns

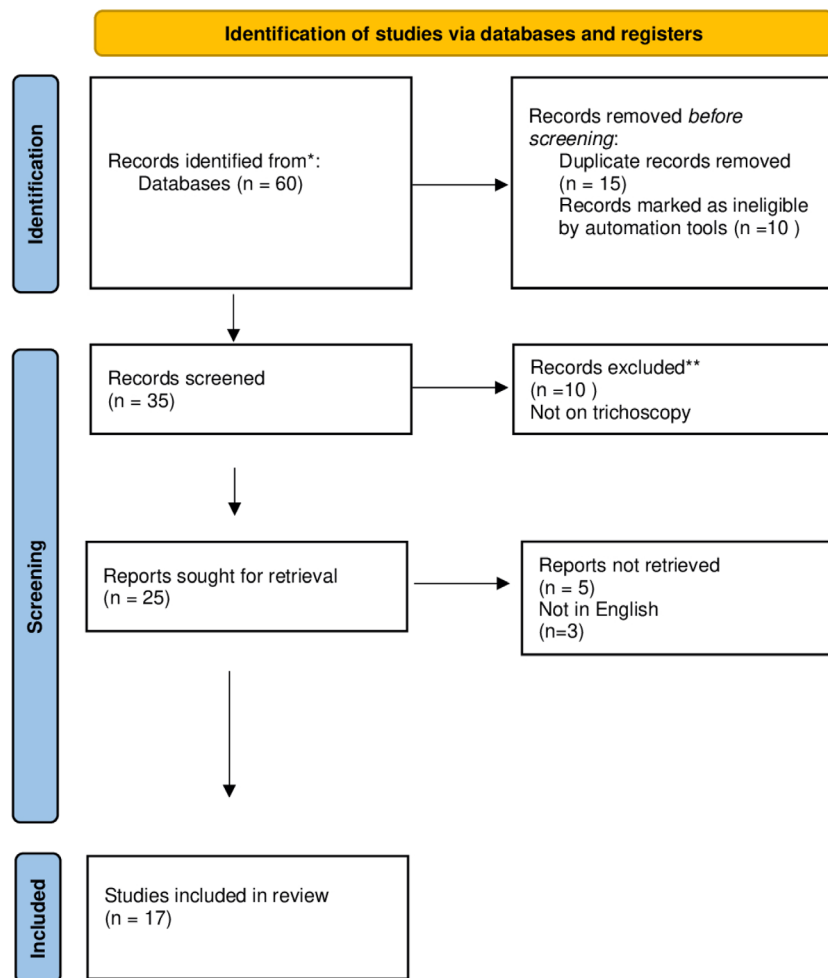
Four patterns of blood vessels were seen on trichoscopy of LPP and FFA: arborizing, dotted, hairpin, and linear vessels. Thin arborizing vessels are telangiectasia with tree-like branching and were seen predominantly in LPP ( $P < 0.01$ ). Dotted, linear, and hairpin vessels were seen in LPP. The cutaneous vasculatures were not frequently visualized in skin of color [17].

### Hair Shaft Abnormalities

Black dots were found to be significant in FFA ( $P < 0.01$ ) [16]. The emergence of two to three hair shafts from follicular opening and isolated single hair (lonely hair sign) in the frontal area was seen in LPP and in FFA, respectively ( $P < 0.01$ ) [17-19]. Pili torti was more commonly seen in FFA ( $P < 0.01$ ) [13]. Loss of vellus hair was seen in both groups, and a study done by Miteva et al. showed the involvement of vellus hairs in FFA, but the reason remains unclear [20]. Regrowing terminal hairs and tapered hairs were seen significantly in LPP, and vellus hairs in FFA [1]. Transparent proximal hair emergence was seen in sideburns of FFA and also in LPP. These findings were described even in healthy controls [21]. Circular pigtail hairs were seen significantly in LPP [1].

### Discussion

This systematic review compares the trichoscopic features of scalp LPP and FFA, besides delineating the features of both conditions and correlating them with their pathological findings. Tables 2 and 3 summarize the trichoscopic features of LPP and FFA described in various studies [21-52].



**Figure 2.** Flowchart of systematic review for frontal fibrosing alopecia.

\*Pubmed and Google scholar data base

\*\*Not English literature

Full text not available

There are contrasting opinions regarding the existence of FFA as an independent PCA. The clinical presentation of FFA (Figure S1) differs from LPP (Figure S2-4) by frontotemporal hairline recession associated with eyebrow loss, loss of body hairs, and facial papules. Classical LPP shows single or multiple irregular areas of hair loss in any site, but it is more frequent on the vertex [22]. Both show moderate-to-dense perifollicular lymphohistiocytic inflammation and vacuolar degeneration of basal keratinocytes with perifollicular fibrosis, but the inflammation is predominantly located in the infundibulum and isthmus in LPP and in FFA, respectively. Apoptotic keratinocytes in the follicles are described mostly as being associated with FFA [23]. Direct immunofluorescence (DIF) shows globular deposits, cytooid bodies, Immunoglobulin (Ig M), irregular fibrinogen, and C3 deposits in the papillary dermis in LPP. The positivity in DIF is more common in LPP than in FFA. Immunohistochemistry (IHC) analysis of LPP showed a significant increase in CD68, CD163, and IL4 and decreased expression of CD86 when compared to FFA [24]. Differentiation is needed as FFA is nonresponsive to

therapy, has a chronic course, and has no standardized treatment regime. Treatment options include steroids, antiandrogens, retinoids, and doxycycline. The progression of LPP can be stabilized with steroids, hydroxychloroquine, retinoids, pioglitazone, methotrexate, and cyclosporine [22].

For a long time, histopathology, and immunofluorescence have been considered the standard tools for diagnosing PCA. Besides its invasive nature, the need for two specimens, and the expertise of the pathologist, various other factors limit 100% sensitivity and specificity [4-6].

Trichoscopy, a noninvasive diagnostic tool, aids in unveiling the diagnosis of different scarring alopecias [1]. For the successful use of trichoscopy in the diagnosis and differentiation of various PCAs, including LPP and FFA, the use of standardized trichoscopy terms and a standard approach in analyzing various features are basic steps.

As in line with clinical examination, during the trichoscopic approach to alopecia, the loss of follicular orifices (Figure 3) indicates cicatricial alopecia. Our analysis revealed that around half of the patients with LPP (40%) and FFA

**Table 1. Trichoscopic Features of Lichen Planopilaris and Frontal Fibrosing Alopecia.**

Trichoscopic features	LPP Scalp N=279 (%)	FFA N=513 (%)	p-value
<b>Hair follicle features</b>			
Follicular plugs	11 (3.94)	86 (16.76)	<0.01
Absence of follicular openings	159 (56.98)	201 (39.18)	<0.01
Reduced follicular ostia	0 (0)	4 (0.78)	0.34
Dilated follicles	1 (0.35)	0 (0)	0.25
Yellow dots	50 (17.92)	205 (39.96)	<0.01
Fibrotic white dots	189 (67.75)	123 (41.52)	<0.01
<b>Perifollicular features</b>			
Perifollicular scales	14 (5.08)	85 (16.57)	<0.01
Perifollicular tubular cast	60 (21.50)	23 (4.48)	<0.01
Perifollicular erythema	119 (42.65)	167 (32.55)	0.055
Perifollicular blue-gray dots/globules	26 (9.31)	21 (4.09)	0.054
Target sign	73 (26.16)	0 (0)	<0.01
Perifollicular gray-to-blue-gray structureless area	4 (1.43)	0 (0)	0.014
<b>Interfollicular features</b>			
Scales	0 (0)	1 (0.19)	0.95
Interfollicular erythema	9 (33.34)	0 (0)	<0.01
White structureless areas	118 (42.29)	0 (0)	<0.01
Pink-white background	0 (0)	7 (1.36)	0.13
Interfollicular brown globules	21 (7.52)	0 (0)	<0.01
Blue-white veil	3 (1.07)	0 (0)	0.10
Red globules	10 (3.58)	0 (0)	<0.01
Milky white areas	13 (49.46)	1 (0.19)	<0.01
Honeycomb pigment pattern	17 (6.09)	0 (0)	<0.01
Epidermal atrophy	5 (1.79)	2 (0.38)	0.046
Bluish deep discoloration	14 (5.01)	0 (0)	<0.01
Scattered pigmentation	93 (33.34)	1 (0.19)	<0.01
Starry sky pattern	0 (0)	12 (2.34)	0.07
<b>Vascular pattern</b>			
Arborizing	110 (39.42)	3 (0.57)	<0.01
Dotted	7 (2.50)	0 (0)	<0.01
Hairpin vessels	2 (0.71)	0 (0)	0.09
Linear	2 (0.71)	2 (0.38)	0.537
<b>Hair shaft abnormalities</b>			
Black dots	0 (0)	101 (19.68)	<0.01
Broken hairs	5 (1.7)	6 (1.16)	0.481
Lonely hair sign	1 (0.35)	40 (7.79)	<0.01
Tufting	11 (3.94)	0 (0)	<0.01
Pili Torti	0 (0)	16 (3.11)	<0.01
Loss of vellus hair	4 (1.43)	10 (1.94)	0.605
Circular pigtail hairs	16 (5.73)	0 (0)	<0.01
Pustules	1 (0.35)	0 (0)	0.25
Vellus hairs	22 (7.88)	118 (23.00)	<0.01
Regrowing hairs	22 (7.88)	0 (0)	0.95
Tapered hairs	21 (7.52)	21 (4.09)	0.051
Proximal hair emergence	40 (14.35)	65 (12.16)	0.564
Broom hair	0 (0)	1 (0.19)	0.95

**Table 2. Trichoscopic Features of Lichen Planopilaris Included in This Study.**

Author	Study Design	Number of LPP	Dermoscopy Results	LOE
<i>Lajevardi et al. 2019</i>	Cross-sectional study	117	<p><b>Follicular pattern:</b> Loss of follicular opening 111 (95%)</p> <p><b>Perifollicular:</b> Perifollicular erythema 70 (60%) Targetoid pigmentation 72 (62%) Perifollicular scale 102 (88%) Perifollicular vessel 69 (59%) Scattered pigmentation 94 (80%)</p> <p><b>Interfollicular:</b> Big irregular white areas 110 (94%) Milky-red areas 110 (94%)</p> <p><b>Hair shaft:</b> Shaft deformities 43(37%), circular pigtail hairs 12 (10%) broken hairs 41 (35%) pustules 6 (5%) loss of Vellus hair 36 (31%) tuft of 4 hairs and more 26 (22%) yellow dots 5 (4%)</p>	III
<i>Estrada et al. 2010</i>	Cross-sectional study	4	<p><b>Follicular:</b> Reduction in follicular ostia 4 (100%)</p> <p><b>Perifollicular:</b> perifollicular scales 4 (100%)</p> <p><b>Interfollicular:</b> pigment network 2 (50%) white dots 3 (75%) white patch 2 (50%) blue gray dots 1 (25%)</p>	III
<i>Woo-Haing et al. 2014</i>	Cross-sectional study	8	<p><b>Follicular:</b> Reduced follicular ostia 8 (100%)</p> <p><b>Perifollicular:</b> Perifollicular hyperkeratosis 7 (88%) Perifollicular erythema 7 (88%)</p> <p><b>Interfollicular:</b> Pigment network 3 (38%)</p> <p><b>Vasculature:</b> Atypical red vessels 5 (63%)</p> <p><b>Hair shafts:</b> Black dots 1 (13%)</p>	III
<i>Olga Warszawik et al. 2012</i>	Case-control study	28	<p>Trichoscopy of LPP revealed</p> <p><b>Perifollicular:</b> Silver-white tubular structure around the emerging hair shafts, usually reaching about 1 mm to 3 mm above scalp surface 28 (100%)</p> <p><b>Interfollicular:</b> white dots 28 (100%), bluish deep discoloration 15 (53%) white and milky-red areas lacking follicular openings 28 (100%)</p> <p><b>Vasculature:</b> Elongated vascular loops 15 (53%) located in close proximity to hair shaft openings.</p>	II

Author	Study Design	Number of LPP	Dermoscopy Results	LOE
<i>Panchaprateep et al. 2020</i>	Cross-sectional (Retrospective) study	58	<b>Follicular:</b> Lack of follicular ostia 53 (91%) <b>Perifollicular:</b> perifollicular scales 46 (79%) perifollicular erythema 37 (63.8%) <b>Interfollicular:</b> brownish hyperpigmentation 19 (32%) <b>Hair shafts:</b> transparent proximal hair emergence 40 (69%) <b>Vasculature:</b> telangiectasia 13 (22%)	III
<i>Thakur et al. 2015</i>	Cross-sectional (Retrospective) study	5	Trichoscopy of LPP showed <b>Follicular:</b> absent follicular opening 5 (100%) <b>Perifollicular:</b> peripilar cast 5 (100%) perifollicular erythema 3 (60%) perifollicular scales 5 (100%) <b>Interfollicular:</b> Epidermal atrophy 5 (100%) cicatricial white patch 5 (100%) scattered brown discoloration 2 (40%) <b>Vasculature:</b> Elongated linear blood vessels 2 (40%)	III
<i>Rossi et al. 2013</i>	Cross-sectional (Retrospective) study	86	Dermoscopy of LPP revealed involvement of total preterminal, diffuse hair thinning, perifollicular blue-gray dots, terminal and vellus-like follicles, a partial or total loss of follicular openings, with white structureless areas corresponding to scalp sclerosis	III
<i>Abhijeet et al. 2018</i>	Cross-sectional (Retrospective) study	6	<b>Follicular:</b> decreased follicular ostia 6 (100%) <b>Perifollicular:</b> Perifollicular scaling 6 (100%) Perifollicular erythema 6 (100%) <b>Interfollicular:</b> White dots 6 (100%) White structureless area 3 (50%) Blue-gray dots 3 (50%) Blue-white veils 3 (50%)	III
<i>Eftekhari et al. 2019</i>	Cross-sectional study	44	<b>Follicular pattern:</b> Small yellow dots 6 (13%) white dots pinpoint 34 (77%) large yellow dots 8 (18%) white dots fibrotic 7 (15%) <b>Perifollicular:</b> Tubular scales 20 (45%) <b>Interfollicular:</b> Peripilar sign yellowish brown 6 (13%) black-blue peripilar pigment 23 (52%) honeycombing 13 (29%) <b>Vascular pattern:</b> Dilated lesional telangiectatic vessels 26 (59%) perilesional thick vessels 11 (25%) pinpoint red dots 7 (16%) Red blotches 5 (11%) <b>Hair shaft:</b> Vellus hair 22 (50%) regrowing hairs 22 (50%) coiled twisted hairs 14 (31%) tufting 7 (16%)	V

Table 2 continues

**Table 2. Trichoscopic Features of Lichen Planopilaris Included in This Study. (continued)**

Author	Study Design	Number of LPP	Dermoscopy Results	LOE
Arshdeep et al. 2018	Case series	4 cases involving scalp (all), face (1), forearm (2), and back (2)	Case 1 trichoscopy revealed showed multiple discrete peripilar casts. Dermoscopy of the trunk revealed the absence of follicular openings and residual body hair with no peripilar casts, suggestive of “burnt-out” disease. Case 2: Dermoscopy of scalp showed discrete peripilar casts, blue-gray dots in targetoid pattern, and white patches of scarring alopecia Case 3: Dermoscopy of right cheek with facial papules (lichen planus) showed partial loss of vellus hairs in patients of LPP with LP Case 4: Dermoscopy of follicular plugs on the back in patient of LPP showed gray-brown dots (peppering) around the follicular ostia with broken hairs and discrete peripilar casts.	V
Batra et al. 2020.	Case report	2	Trichoscopy showed elimination of hyperkeratosis and evidence of inflammation on the frontal hairline	V
Ankad et al. 2013	Case report	1	<b>LPP:</b> Trichoscopy showed diminished follicular ostia, perifollicular scales (black stars), and white dots (red stars). Blue-gray dots (yellow arrows) around the follicular structures (“target” pattern)	V
Friedman et al. 2015	Case report	1	Trichoscopy revealed perifollicular whitish-gray scaling associated with erythema, multiple irregular cicatricial alopecic areas, absence of follicular openings, arboriform vessels, and follicular plugging	V
Góes et al. 2017	Case report	1	<b>Periphery of the plaque:</b> erythema and perifollicular scaling <b>Central areas:</b> Erythematous and shiny No scaling Absence of follicular ostia	V
Kaliyadan et al 2015	Case report	1	Violaceous pattern over the normal pseudo-network of the region associated with whitish striations (corresponding to Wickham’s striae) and prominent pigment clumps (corresponding to the dermal melanophages)	V
Andziukeviciute et al. 2016	Case report	1	Trichoscopy showed follicular hyperkeratosis, zones of extinct hair follicles, and erythema	V

Abbreviations: LPP: lichen planopilaris, DLE: scalp discoid lupus erythematosus, FFA: frontal fibrosing alopecia, LP: lichen planus, LOE: Level of evidence

(55%) may not show this feature, indicating the early stage of the disease. This may be crucial from management’s point of view, as the patients will have favorable responses [42]. The red dots correspond to the opening of the follicular orifice with visible vasculature. Per Rakowska et al., the presence of red and gray dots was considered a favorable prognostic marker of the disease, whereas loss of follicular ostia was seen in the late stage of FFA [18]. The next most frequent finding noted in our analysis of FFA was yellow dots (Figure 4), which were better detected in polarized mode. The yellow dots correlate with the follicular ostia filled with sebaceous secretions [1]. This represents the intactness of follicular ostia, which is the most common finding in nonscarring alopecias [44,45]. Follicular keratotic

plug (Figure 5) corresponded with the hyperkeratosis and plugging of the follicular orifice with keratotic material on histopathology; this feature is characteristic of discoid lupus erythematosus (DLE) but was seen predominantly in FFA [1,44]. This concurs with the absence of clinical follicular plugging in cases of FFA [45]. Fibrotic white dots (Figure 4) are delineated from pinpoint white dots by the presence of a peripheral hyperpigmented halo. The white fibrotic dots coalesce to form white structureless areas, which correlate with the vertical arrangement of scar tissue in histology. This points towards the loss of follicular ostia by fibrous tissue and is a poor prognostic sign. The pinpoint white dots correspond to openings of eccrine sweat gland ducts or follicular orifices [46].

Perifollicular and interfollicular erythema (Figure 3), a feature seen in both LPP and FFA, represents early active inflammation around the hair follicles and is a good prognostic sign [13]. Perifollicular tubular casts are 3 mm circumferential adherent scales and tend to climb away from the scalp; this finding was thought to be specific to LPP but

was later described in many conditions such as folliculitis decalvans, pemphigus foliaceus, and scalp DLE [1,18]. This corresponds to perifollicular hyperkeratosis on histology [14]. In contrast, perifollicular scaling was significantly found in FFA. However, this feature can be nonspecific, can be found in other types of PCAs, and can be influenced by

**Table 3. Trichoscopic Features of Frontal Fibrosing Alopecia Described in Various Studies.**

Author	Study Design	Study Participants	Dermscopy Results	LOE
<i>Cervantes et al. 2018</i>	Case-control (Retrospective) study	40	Trichoscopy of the frontotemporal scalp (38 cases) revealed: <b>Perifollicular:</b> Peripilar casts 24 (63%) Peripilar erythema 22 (57%) <b>Hair shaft:</b> Transparent proximal hair shaft emergence 6 (15%) Pili torti-like hairs 6 (15%) Broken hairs 4 (10%). Trichoscopy of the sideburns region (24 cases): <b>Perifollicular:</b> Peripilar casts (fine and less adherent) 4 (16%) Peripilar erythema 4 (16%) Pili torti-like hairs 4 (16%) <b>Hair shafts:</b> Transparent proximal hair shaft emergence 19 (79%) broken hairs 2/24 (8.3%)	II
<i>Olga Warszawik et al. 2012</i>	Case-control study	19	Dermscopy of FFA revealed Perifollicular scaling 15 (78%) White dots 1 (5.2%) Follicular red dots 6 (31.6%)	II
<i>Panchaprateep et al. 2020</i>	Cross-sectional (Retrospective) study	58 patients: 46 retrospective and 12 prospective	<b>Follicular:</b> Lack of follicular ostia 53 (91%) <b>Perifollicular:</b> Perifollicular scales 46 (79%) Perifollicular erythema 37 (63.8%) <b>Interfollicular:</b> Brownish hyperpigmentation 19 (32%) <b>Hair shafts:</b> Transparent proximal hair emergence 40 (69%) <b>Vasculature:</b> Telangiectasia 13 (22%)	III
<i>Rossi et al. 2013</i>	Cross-sectional (Retrospective) study	48	White structureless areas (100%) Loss of vellus hairs (100%) Involvement of occiput (10.42%) Frontoparietal region (89.58%).	III
<i>Farag et al. 2020</i>	Cross-sectional (Retrospective) study	50	<b>Follicular:</b> Yellow dots 140 (92%), Multiple pinpoint dots 120 (79.5%) <b>Hair shaft:</b> Short thin hairs/vellus 115 (76%), Black dots 100 (66%) Dystrophic hairs 92 (60%) Tapering hairs 21 (13%) Dystrophic hairs 92 (60%).	V

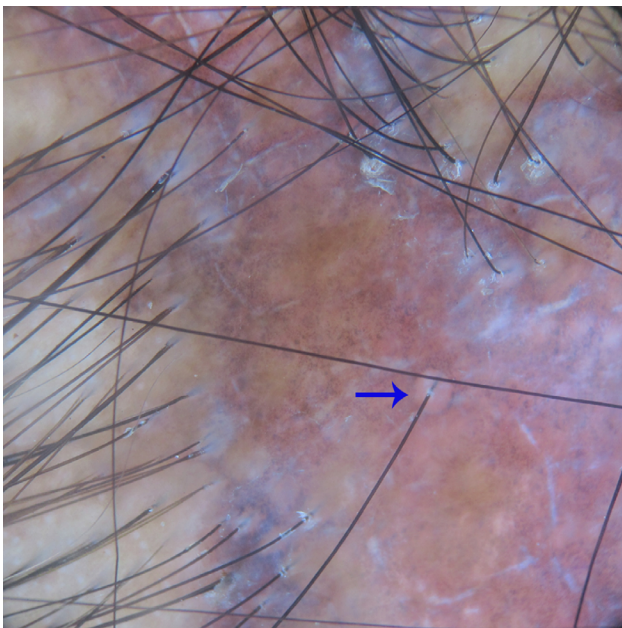
Table 3 continues

**Table 3. Trichoscopic Features of Frontal Fibrosing Alopecia Described in Various Studies.**  
(continued)

Author	Study Design	Study Participants	Dermoscopy Results	LOE
Karadag Köse et al. 2019	Cross-sectional study	7	<b>Follicular:</b> Absent follicular opening 69 (100%) Yellow dots 20 (28%) White fibrotic dots 28 (42%) Pinpoint dots 10 (14%) <b>Perifollicular:</b> Perifollicular scaling 50 (71%), Peripilar cast 10 (14%). <b>Interfollicular features:</b> Pink–white appearance 69 (100%) Honeycomb pattern 50 (71%) Brown scattered pattern 10 (14%) <b>Hair shafts:</b> Absence of vellus hairs 20 (28%), Short vellus hairs 28 (42%), Broken hairs 10 (14%), Pili torti 50 (71%), Black dots 28 (42%).	III
Estrada et al. 2010	Cross-sectional study	5	FFA dermoscopy showed <b>Follicular:</b> Reduction in follicular ostia 4 (80%) <b>Perifollicular:</b> Perifollicular scales 3 (60%) Perifollicular erythema 3 (60%) <b>Interfollicular:</b> Pigment network 2 (40%) White patch 1 (20%) White dots 2 (40%) <b>Vasculature:</b> Branching capillaries 3 (60%) <b>Hair shafts:</b> Vellus hairs 1 (20%)	III
Thakur et al. 2015	Cross-sectional (Retrospective) study	5	Dermoscopy of FFA revealed <b>Follicular:</b> Classic white dots 1 (50%), absent follicular opening 2 (100%), <b>Perifollicular:</b> Perifollicular erythema 2 (100%) Perifollicular scales 2 (100%) Peripilar cast 2 (100%) <b>Interfollicular:</b> Epidermal atrophy 2 (100%) cicatricial white patch 2 (100%) Blue-gray dots 1 (50%) Scattered brown discoloration 2 (100%) <b>Vasculature:</b> Elongated linear blood vessels 2 (100%)	III
Martínez-Velasco et al. 2018	Cross-sectional study	20	Study was done to correlate the peripilar cast thickness and degree of lymphocytic infiltration. Cast less than 2 mm had less than 5 lymphocytes/field/40 X, 2 to 4.4 mm had 5 to 10 lymphocytes/field/40 X and more than 4.4 mm had more than 10 lymphocytes/field/40 X. Thus, a strong correlation was observed between the severity of peripilar cast and the degree of lymphocytic infiltrate.	V

Author	Study Design	Study Participants	Dermoscopy Results	LOE
<i>Toledo-Pastrana et al. 2013</i>	Cross-sectional study	79	Trichoscopy revealed <b>Follicular:</b> Loss of follicular opening 79 (100%) Follicular hyperkeratosis 65 (72%) Follicular plugs 35 (44%) <b>Perifollicular:</b> Perifollicular erythema 52 (66%) Perifollicular erythema was present in 95% of cases in which the disease was active, with statistically significant differences between the two groups (active vs. inactive disease) (P < 0.01)	V
<i>Sicińska et al. 2022</i>	Cross-sectional study	6	Trichoscopic hairline monitoring in FFA patients. The baseline image aligned with the follow-up image and hair density profile. Trichoscopy with hair-to-hair matching for disease progression.	V
<i>Rodrigues-Barata et al. 2018</i>	Cross-sectional study	12	Ultraviolet-enhanced trichoscopy with a wavelength of 365 nm, when applied to the skin, will produce fluorescence due to p. acne that generates red-orange fluorescence due to porphyrin production. while compact keratin produces white-yellow fluorescence. If fluorescence due to p. acne indicates viability of follicle hence, regrowth can be expected in FFA on therapy.	V
<i>Starace et al. 2019</i>	Case series	65	Empty follicles/yellow dots 65 (100%) Absence of follicular ostia 65 (100%) Mild follicular hyperkeratosis 51 (78%) Perifollicular erythema 46 (70%) Lonely hair 40 (61%)	V
<i>Miteva et al. 2019</i>	Case series	6	Six cases of FFA, trichoscopic guides biopsy was done. Trichoscopy revealed a perihilar cast (100%) and preserved vellus hairs (100%). The histopathology revealed perifollicular lichenoid layered or patchy infiltrate around vellus hairs and the atrophy of the sebaceous glands.	V
<i>Ferrari et al. 2019</i>	Case report	1	Loss of vellus hair Prominent peripilar casts Absence of follicular openings Dermoscopy of eyebrows: Black dots Hair growing in different directions Numerous pili torti	V
<i>Thompson et al. 2022</i>	Case report	1	Tuft of 2 hairs, surrounded by a dilated follicular ostium and a peripilar cast Three-dimensional imaging: The disease is confined to the infundibulum and superficial isthmus, where two follicles have fused to form a compound follicle	V
<i>Rocchetto et al. 2019</i>	Case report	1	Absence of vellus hairs and follicular openings Perifollicular scaling Broken hairs Broom hair fibers	V

Abbreviations: FFA: frontal fibrosing alopecia, p acne: Propionibacterium acne, LOE: level of evidence.



**Figure 3.** Trichoscopy of lichen planopilaris shows loss of follicular orifices, perifollicular scale and erythema, and perifollicular blue-gray dots in a target pattern (arrow).

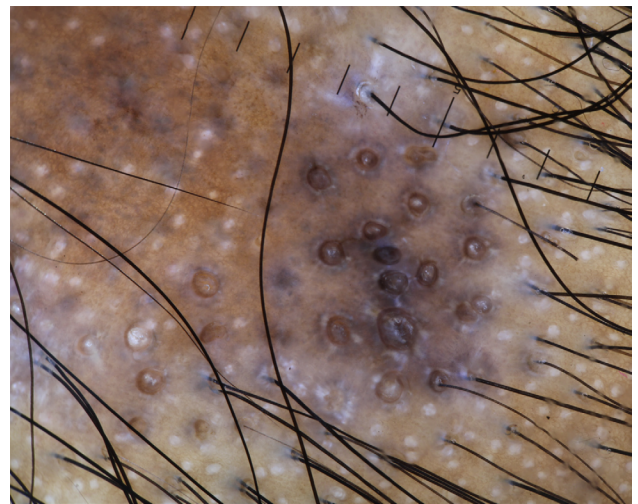


**Figure 4.** Trichoscopy of lichen planopilaris shows fibrotic white dots (blue arrow).

the following: the use of oil by the patients, the application of immersion fluid by a physician, and associated common dermatoses of the scalp like pityriasis capitis.

In LPP, a characteristic “target pattern” of the blue-gray dot (Figure 3) is described, which helps discriminate it from other PCAs. In addition, it can be a guiding area for doing a biopsy to visualize the perifollicular pathology. Furthermore, it was a more significant feature in LPP than FFA, as interface changes involving the follicular area with sparing interfollicular areas are seen in LPP [14].

The pink-white background in LPP corresponds to partial fibrosis and inflammatory infiltrates. The blue-white veil is characterized by central white areas and peripheral irregular patches of blue-brown pigment with an overlying

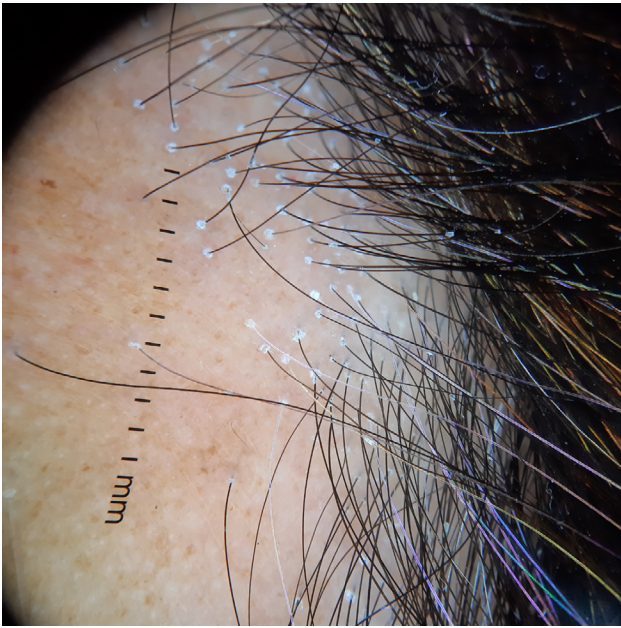


**Figure 5.** Trichoscopy of lichen planus over the scalp shows follicular plugging, interfollicular brown-gray structureless area, and perifollicular shiny white structures.

“ground-glass” hue, initially thought to be specific to malignant melanoma but later described in many conditions [1]. In LPP, a blue-white veil corresponds to hyperkeratosis overlying lichenoid infiltrate with melanophages in the upper dermis, and this was seen in a few cases [10,15]. Per Rodrigues-Barata et al., on ultraviolet-enhanced trichoscopy, a unique “starry sky” pattern was described in FFA, which positively predicts the therapeutic response in FFA with medical management. Those patients with a “starry sky pattern” partial response to medical management were seen when compared to negative fluorescence [16].

Arborizing vessels correspond to the subpapillary plexus in histopathology. It can be thick or thin, divided in relation to hair shaft diameter. Thin arborizing vessels around the follicle were significantly seen in LPP [1,45]. Arborizing vessels are classical features encountered in scalp DLE. Thin arborizing vessels are normal findings of the scalp frequently seen in the vertex and occipital regions of the scalp and less common in the frontal area. The involvement of these regions of the scalp can be a possible explanation for the frequent findings of the arborizing vessels in LPP, apart from the use of intralesional steroids in alopecia patches [47]. Nonfollicular dotted and linear vessels were seen in some patients with LPP. Hairpin vessels are seen in normal scalp, but the density of the vascular pattern was increased in a few cases of LPP. Apart from density, the characteristic circumferential perifollicular arrangement of hairpin vessels was seen in LPP [47,48].

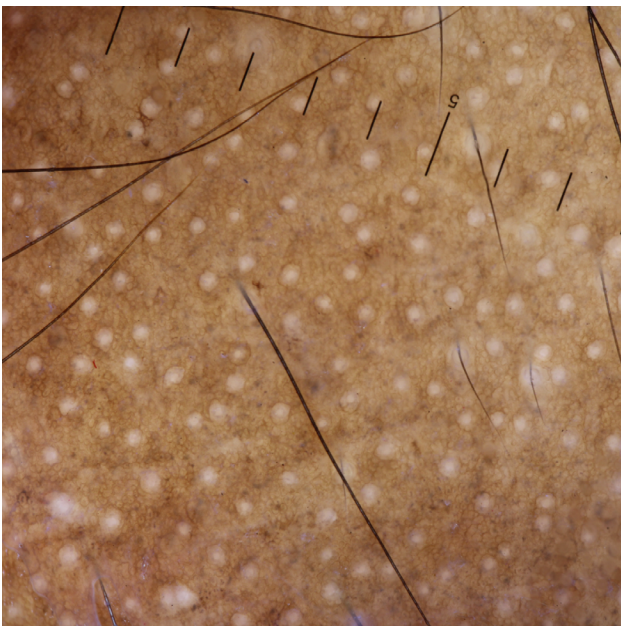
Vellus hairs are thin hair shafts of diameter less than 0.03 mm with less pigmentation, while the regrowing hairs are darkly pigmented upright shafts with tapered ends. Both these were seen predominantly in LPP [49]. FFA (Figures 6, 7 and 8) mostly affects vellus hairs. Hence, loss of vellus hairs on trichoscopy is noted, and the ‘lonely hair sign’ is also due



**Figure 6.** Frontal fibrosing alopecia shows perifollicular scales and speckled brown pigmentation.



**Figure 8.** Trichoscopy of frontal fibrosing alopecia of the eyebrow shows perifollicular and interfollicular erythema, black dots, and broken hairs.



**Figure 7.** Trichoscopy of frontal fibrosing alopecia shows the lonely hair sign.

to the progressive destruction of vellus hairs, leading to the persistence of isolated terminal hairs [50]. In the early stages of FFA, the disease process initiates in the frontal hairline, where the density of vellus hair is high and is frequently destroyed by the disease process. However, there are case reports of pseudo “fringe sign,” which describes intact vellus hairs in the frontal hairline.

Perifollicular concentric lamellar fibrosis and predominant inflammation of the infundibulum lead to the emergence of multiple hair follicles through the re-epithelialized

ostia, resulting in “tufts of hair” in LPP [49]. Pili torti is a hair shaft abnormal either due to congenital or acquired etiology and characterized by 180° twisting at regular intervals. It was described in FFA per our review [51]. While shiny white structureless areas were common in both the groups in the end or inactive stages, the target arrangement of blue-gray dots, milky-red areas, and irregular white fibrotic dots was seen in inactive LPP, and black dots, lonely hairs, loss of vellus hairs was detected in later stages of FFA. Black dots are due to breakage of hair at the origin from the scalp, which was significantly seen in the FFA of eyebrows but not described in the scalp variant, and exact pathomechanism is not described [52].

Limitations of the review were the missing data due to inconsistency and variability in the usage of dermoscopic terminologies, and data on variations in the findings with polarized and nonpolarized modes, and differences in dermoscopy and video dermoscopy were not extrapolated. All skin types were included, and the variations in skin of color were not assessed.

In conclusion, the presence of predominant peripilar tubular casts, perifollicular erythema, target blue-gray dots, milky-red areas, and arborizing vessels support the diagnosis of LPP. In contrast, FFA is indicated by yellow dots, perifollicular erythema, scattered pigmentation, black dots, lonely hairs, and loss of vellus hairs. Features such as blue-gray structureless areas, blue-white veil, and variability in morphologies of hair shafts were nonspecific. The overlapping trichoscopic features may indicate that FFA and LPP are two different entities of the same spectrum

## References

1. Gowda SK, Errichetti E, Thakur V, et al. Trichoscopic Features of Scalp Discoid Lupus Erythematosus versus Lichen Planopilaris: A Systematic Review. *Clin Cosmet Investig Dermatol*. 2024;17:805-827. Published 2024 Apr 9. DOI:10.2147/CCID.S460742
2. Rakowska A, Slowinska M, Kowalska-Oledzka E, et al. Trichoscopy of cicatricial alopecia. *J Drugs Dermatol*. 2012;11(6):753-758.
3. Stefanato CM. Histopathology of alopecia: a clinicopathological approach to diagnosis. *Histopathology*. 2010;56(1):24-38. DOI:10.1111/j.1365-2559.2009.03439.x
4. Rudnicka L, Olszewska M, Rakowska A, Kowalska-Oledzka E, Slowinska M. Trichoscopy: a new method for diagnosing hair loss. *J Drugs Dermatol*. 2008;7(7):651-654.
5. Trachsler S, Trueb RM. Value of direct immunofluorescence for differential diagnosis of cicatricial alopecia. *Dermatology*. 2005;211(2):98-102. DOI:10.1159/000086436
6. Abdel Bary A, Eldeeb M, Hassan E. Cicatricial alopecia: do clinical, trichoscopic, and histopathological diagnosis agree?. *Acta Dermatovenerol Alp Pannonica Adriat*. 2021;30(4):129-136.
7. Mehta P, Malakar S. Trichoscopy as a monitoring tool for therapeutic efficacy in lichen planopilaris. *Int J Dermoscopy* 2017; 1: 38-9. DOI:10.5005/jp-journals-10061-0009
8. Vendramini DL, Silveira BR, Duque-Estrada B, Boff AL, Sodré CT, Pirmez R. Isolated Body Hair Loss: An Unusual Presentation of Lichen Planopilaris. *Skin Appendage Disord*. 2017;2(3-4):97-99. DOI:10.1159/000449229
9. Panjwani S. Early diagnosis and treatment of discoid lupus erythematosus. *J Am Board Fam Med*. 2009;22(2):206-213. DOI:10.3122/jabfm.2009.02.080075
10. Lacarrubba F, Musumeci ML, Ferraro S, Stinco G, Verzi AE, Micali G. A three-cohort comparison with videodermatoscopic evidence of the distinct homogeneous bushy capillary microvascular pattern in psoriasis vs atopic dermatitis and contact dermatitis. *J Eur Acad Dermatol Venereol*. 2016;30(4):701-703. DOI:10.1111/jdv.12998.
11. Abraham LS, Piñeiro-Maceira J, Duque-Estrada B, Barcaui CB, Sodré CT. Pinpoint white dots in the scalp: dermoscopic and histopathologic correlation. *J Am Acad Dermatol*. 2010;63(4):721-722. DOI:10.1016/j.jaad.2009.12.011
12. Souissi A, Ben Tanfous A, Azzouz H, et al. When trichoscopy enlightens clinics. *Int J Dermatol*. 2016;55(11):1278-1280. DOI:10.1111/ijd.13139
13. Toledo-Pastrana T, Hernández MJ, Camacho Martínez FM. Perifollicular erythema as a trichoscopy sign of progression in frontal fibrosing alopecia. *Int J Trichology*. 2013;5(3):151-153. DOI:10.4103/0974-7753.125616
14. Mathur M, Acharya P, Karki A, Shah J, Kc N. Tubular Hair Casts in Trichoscopy of Hair and Scalp Disorders. *Int J Trichology*. 2019;11(1):14-19. DOI:10.4103/ijt.ijt\_77\_18
15. Liebman TN, Rabinovitz HS, Dusza SW, Marghoob AA. White shiny structures: dermoscopic features revealed under polarized light. *J Eur Acad Dermatol Venereol*. 2012;26(12):1493-1497. DOI:10.1111/j.1468-3083.2011.04317.x
16. Rodrigues-Barata AR, Moreno-Arrones OM, Corralo DS, Galvan SV. The “Starry Night Sky Sign” Using Ultraviolet-Light-Enhanced Trichoscopy: A New Sign That May Predict Efficacy of Treatment in Frontal Fibrosing Alopecia. *Int J Trichology*. 2018;10(5):241-243. DOI:10.4103/ijt.ijt\_17\_18
17. Tosti A. Lonely hair sign: not specific for frontal fibrosing alopecia-reply. *Arch Dermatol*. 2012;148(10):1208-1209. DOI:10.1001/archdermatol.2012.1873.
18. Rakowska A, Slowinska M, Kowalska-Oledzka E, et al. Trichoscopy of cicatricial alopecia. *J Drugs Dermatol*. 2012;11(6):753-758.
19. Qi S, Zhao Y, Zhang X, Li S, Cao H, Zhang X. Clinical features of primary cicatricial alopecia in Chinese patients. *Indian J Dermatol Venereol Leprol*. 2014;80(4):306-312. DOI:10.4103/0378-6323.136833.
20. Miteva M, Sabiq S. A New Histologic Pattern in 6 Biopsies From Early Frontal Fibrosing Alopecia. *Am J Dermatopathol*. 2019;41(2):118-121. DOI:10.1097/DAD.0000000000001247
21. Cervantes J, Miteva M. Distinct trichoscopic features of the sideburns in frontal fibrosing alopecia compared to the frontotemporal scalp. *Skin appendage disorders*. 2018;4:50-4. DOI: 10.1159/000479116. PMID: 29457017.
22. Gálvez-Canseco A, Sperling L. Lichen planopilaris and frontal fibrosing alopecia cannot be differentiated by histopathology. *J Cutan Pathol*. 2018;45(5):313-317. DOI:10.1111/cup.13112
23. Rajan A, Rudnicka L, Szepietowski JC, et al. Differentiation of frontal fibrosing alopecia and Lichen planopilaris on trichoscopy: A comprehensive review. *J Cosmet Dermatol*. 2022;21(6): 2324-2330. DOI:10.1111/jocd.14457.
24. Poblet E, Jiménez F, Pascual A, Piqué E. Frontal fibrosing alopecia versus lichen planopilaris: a clinicopathological study. *Int J Dermatol*. 2006;45(4):375-380. DOI:10.1111/j.1365-4632.2006.02507.x.
25. Duque-Estrada B, Tamler C, Sodré CT, Barcaui CB, Pereira FB. Dermoscopy patterns of cicatricial alopecia resulting from discoid lupus erythematosus and lichen planopilaris [published correction appears in *An Bras Dermatol*. 2010 Aug;85(4):578. Estrada, Bruna Duque [corrected to Duque-Estrada, Bruna]]. *An Bras Dermatol*. 2010;85(2):179-183. DOI:10.1590/s0365-05962010000200008.
26. Starace M, Brandi N, Alessandrini A, Bruni F, Piraccini BM. Frontal fibrosing alopecia: a case series of 65 patients seen in a single Italian centre. *J Eur Acad Dermatol Venereol*. 2019;33(2): 433-438. DOI:10.1111/jdv.15372.
27. Arshdeep, Batrani M, Kubba A, Kubba R. Lichen planopilaris beyond scalp: a case series with dermoscopy-histopathology correlation. *Int J Dermatol*. 2018;57(11):e127-e131. DOI:10.1111/ijd.14168
28. Ankad BS, Beergouder SL, Moodalgi VM. Lichen planopilaris versus discoid lupus erythematosus: a trichoscopic perspective. *Int J Trichology*. 2013;5(4):204-207. DOI:10.4103/0974-7753.130409
29. Friedman P, Sabban EC, Marcucci C, Peralta R, Cabo H. Dermoscopic findings in different clinical variants of lichen planus. Is dermoscopy useful?. *Dermatol Pract Concept*. 2015;5(4):51-55. Published 2015 Oct 31. DOI:10.5826/dpc.0504a13
30. Thompson CT, Martinez Velasco MA, Tosti A. Three-dimensional imaging of a peripilar cast and compound follicle in frontal fibrosing alopecia. *JAAD Case Rep*. 2022;23:46-48. Published 2022 Mar 11. DOI:10.1016/j.jdcr.2022.02.036
31. Shim WH, Jwa SW, Song M, et al. Dermoscopic approach to a small round to oval hairless patch on the scalp. *Ann Dermatol*. 2014;26(2):214-220. DOI:10.5021/ad.2014.26.2.214
32. Góes HF, Dias MF, Salles SD, Lima CD, Vieira MD, Pantaleão L. Lichen planopilaris developed during childhood.

- An. Bras. Dermatol. 2017;92:543-5. DOI: 10.1590/abd1806-4841.20174890. PMID: 28954108
33. Zeeshan M, Chaudhary RK, Roy PK, Jha AK. Dermoscopy in selected disorders of scarring alopecia. *J Pak Assoc Dermatol.* 2018; 28(4):449-51.
  34. Batra P, Sukhdeo K, Shapiro J. Hair Loss in Lichen Planopilaris and Frontal Fibrosing Alopecia: Not Always Irreversible. *Skin Appendage Disord.* 2020;6(2):125-129. DOI:10.1159/000505439
  35. Kaliyadan F, Ameer AA. Localized and linear lichen planopilaris over the face and scalp with associated alopecia - clinical and dermoscopy pattern. *Dermatol Online J.* 2015;21(9):13030/qt7hg682pr.
  36. Rossi A, Iorio A, Scali E, et al. Frontal fibrosing alopecia and lichen planopilaris: clinical, dermoscopic and histological comparison. *Eur. J. Inflamm.* 2013;11:311-4. DOI: 10.1177/1721727X1301100
  37. Andziukeviciute J, Makstiene J, Valiukeviciene S. Trichoscopy as an Additional Diagnostic Tool for Monitoring of Lichen planopilaris. *Aktuelle Dermatologie.* 2016:280-2.
  38. Karadag Köse Ö, Güleç AT. Evaluation of a handheld dermatoscope in clinical diagnosis of primary cicatricial alopecias. *Dermatol Ther.* 2019;9:525-35. DOI: 10.1007/s13555-019-0304-3. PMID: 31190216
  39. Rocchetto H, Oliveira Costa Fechine C, Anzai A, et al. Cicatricial Alopecia with Particular Trichoscopic and Histopathological Features. *Skin Appendage Disord.* 2019;5(3):193-195. DOI:10.1159/000493648
  40. Sicińska J, Kasprzak M, Walecka I. Trichoscopy-Derived Hairline Recession Equivalent in Monitoring Frontal Fibrosing Alopecia. *Skin Appendage Disord.* 2022;8(5):362-367. DOI:10.1159/000524127.
  41. Martínez-Velasco MA, Vázquez-Herrera NE, Misciali C, et al. Frontal Fibrosing Alopecia Severity Index: A Trichoscopic Visual Scale That Correlates Thickness of Peripilar Casts with Severity of Inflammatory Changes at Pathology. *Skin Appendage Disord.* 2018;4(4):277-280. DOI:10.1159/000487158.
  42. Ferrari B, Vincenzi C, Tosti A. Pili Torti as a Sign of Eyebrow Involvement in Frontal Fibrosing Alopecia. *Skin Appendage Disord.* 2019;5(6):393-395. DOI:10.1159/000502059.
  43. Miteva M, Tosti A. Dermoscopy guided scalp biopsy in cicatricial alopecia. *J Eur Acad Dermatol Venereol.* 2013;27(10):1299-1303. DOI:10.1111/j.1468-3083.2012.04530.x.
  44. Tawfik SS, Sorour OA, Alariny AF, Elmorsy EH, Moneib H. White and yellow dots as new trichoscopic signs of severe female androgenetic alopecia in dark skin phototypes. *Int J Dermatol.* 2018;57(10):1221-1228. DOI:10.1111/ijd.14140.
  45. Lajevardi V, Mahmoudi H, Moghanlou S, Ansari M, Teimourpour A, Daneshpazhooh M. Assessing the correlation between trichoscopic features in lichen planopilaris and lichen planopilaris activity index. *Australas J Dermatol.* 2019;60(3): 214-218. DOI:10.1111/ajd.13022.
  46. Eftekhari H, Azimi SZ, Rafiei R, et al. Dermoscopic features of lichen planopilaris in Northern Iran: a prospective observational study. *Int J Dermatol.* 2019;58(12):1406-1414. DOI:10.1111/ijd.14589.
  47. Farag AM, Salem RM, Abdelrahman AM, EL-Adawy DM. Trichoscopic Findings of Frontal Fibrosing Alopecia. *Benha Journal of Applied Sciences.* 2020;5:71-4.
  48. Panchaprateep R, Ruxrungtham P, Chancheewa B, Asawanonda P. Clinical characteristics, trichoscopy, histopathology and treatment outcomes of frontal fibrosing alopecia in an Asian population: A retro-prospective cohort study. *J Dermatol.* 2020;47(11):1301-1311. DOI:10.1111/1346-8138.15517.
  49. Thakur BK, Verma S, Raphael V. Clinical, Trichoscopic, and Histopathological Features of Primary Cicatricial Alopecias: A Retrospective Observational Study at a Tertiary Care Centre of North East India. *Int J Trichology.* 2015;7(3):107-112. DOI:10.4103/0974-7753.167459.
  50. Melo DF, de Mattos Barreto T, de Souza Albernaz E, Haddad NC, Tortelly VD. Ten clinical clues for the diagnosis of frontal fibrosing alopecia. *Indian J Dermatol Venereol Leprol.* 2019;85(5):559-564. DOI:10.4103/ijdv.IJJDVL\_713\_17.
  51. Choudhary SV, Tarafdar PP, Jawade S, Singh A. A Point to Note in Pili Torti. *Int J Trichology.* 2018;10(2):95-97. DOI:10.4103/ijt.ijt\_111\_16.
  52. Anzai A, Pirmez R, Vincenzi C, Fabbrocini G, Romiti R, Tosti A. Trichoscopy findings of frontal fibrosing alopecia on the eyebrows: A study of 151 cases. *J Am Acad Dermatol.* 2021;85(5):1130-1134. DOI:10.1016/j.jaad.2019.12.023