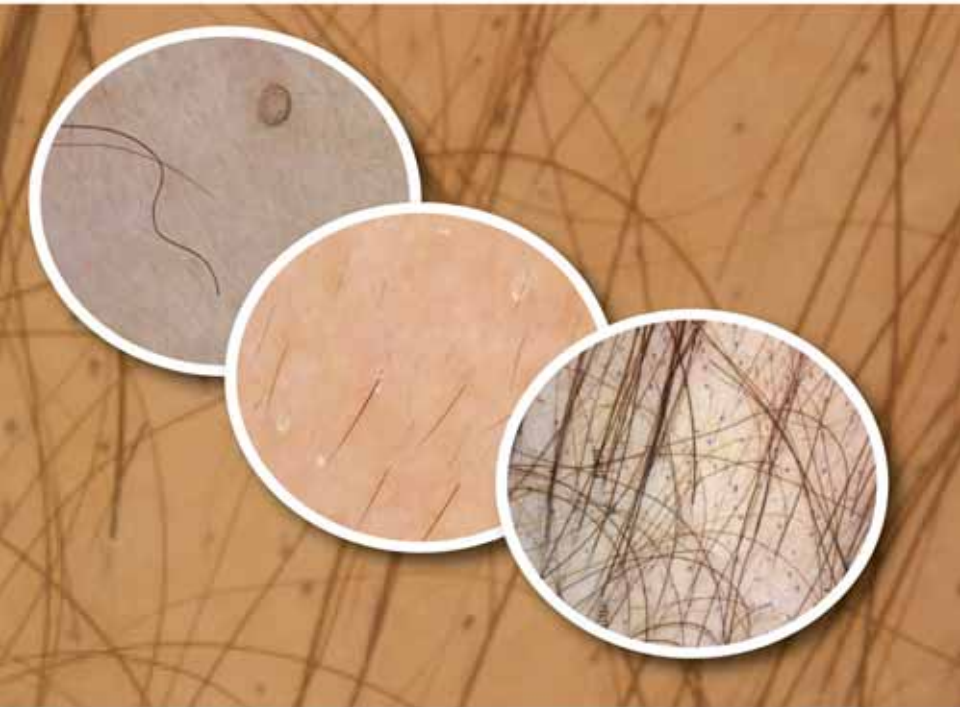


TRICHOSCOPY

A Text and Atlas



Subrata Malakar



Trichoscopy

A Text and Atlas

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Dedicated to

My late wife Dr Rita Shah Malakar

Jaypee Brothers

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Preface

Trichoscopy is fast gaining hold in daily clinical practice of dermatologists across India and the world. This book is written by the trichoscopy enthusiasts with a vision to help and enhance structured and step-by-step practice of trichoscopy by the students and practitioners. The idea of this book was conceived when the authors saw that there was a dearth of work and data related to trichoscopy in the skin of color and the absence of proper teaching modules related to the same. This book was envisioned as a ready-reckoner and a basic step-by-step module that helped to arrive at a trichoscopic diagnosis of a particular condition.

The authors are trichoscopy enthusiasts, who use trichoscopy in the same way that a physician would use his stethoscope. They concur with the words of Antonella Tosti and Lidia Rudnicka that the practice of trichology without trichoscopy is a professional practice gap.

Having said this, the author would like to extend his heartfelt thanks to the two doyens in the world of trichology at large and trichoscopy as well, Antonella Tosti and Lidia Rudnicka. Their relentless efforts in this field culminated in producing two of the best books for trichoscopy that are being relied upon from across the world. Since its inception way back in 1993, when Steven Kossard and Sam Zagarella described dermoscopy with dots in cicatricial alopecia to 2006, where the term 'trichoscopy' was first introduced and used, the knowledge in this field is growing by leaps and bounds worldwide.

As we compile the trichoscopic data in this book and guide our readers towards making a trichoscopic diagnosis, we are certain that every reader will make their new observations as they go along and we solemnly support and request them to share their work and knowledge to add to the existing knowledge in trichoscopy.

We hope this book delivers what you are looking forth to learn in the field of trichoscopy and, thereby, helps in your clinical practice to achieve maximum output for yourself and your patients.

Subrata Malakar

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CHAPTER 4

Follicular and Perifollicular Patterns

Subrata Malakar, Purva Mehta

FOLLICULAR AND PERIFOLLICULAR PATTERNS

- Yellow dots
- White dots
- Black dots
- Red dots
- Blue-gray dots
- Gray-white halo
- Peripilar sign
- Keratotic plugs
- Empty follicles
- Loss of follicular openings
- Perifollicular scales

BLACK DOTS

- They are hairs broken at scalp level¹
- They appear as black dots at the hair follicle opening
- Black dots are not specific for any conditions and are commonly plenty in alopecia areata, trichotillomania, tinea capitis, etc.
- Only a few black dots may be seen in some scarring alopecias.



Fig. 1: Presence of plenty of black dots in alopecia areata. They are not diagnostic as numerous black dots are present in other non-scarring alopecia also.

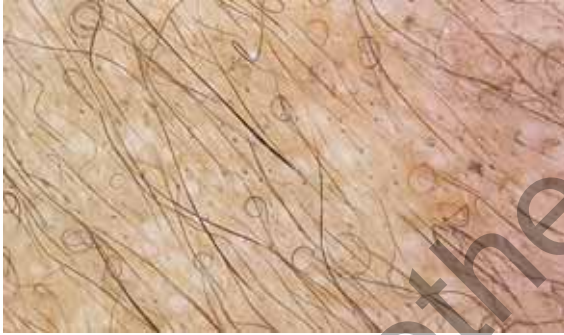


Fig. 2: Numerous black dots in trichotillomania of eyebrow. Note the circle hairs or pigtail hairs which are nothing but short vellus hairs.



Fig. 3: Few black dots (red arrows) in lichen planopilaris (LPP). Note the blue-gray dots (green arrow) which is a feature of LPP due to pigment incontinence.

Pinpoint white dots:² the characteristics of white dots are:

- They are regularly distributed in the normal scalp interspersed between the hair follicles
- A diameter of 0.2–0.3 mm
- Present in normal scalp. It may be seen in scalp disorders with normal interfollicular scalp
- Increased in number in all types of alopecia
- Scattered/absent in scalp DLE and folliculitis decalvans.



Fig. 4: Pinpoint white dots: 0.2–0.3 mm dots distributed regularly in the interfollicular scalp, dispersed among the mosaics of honeycomb pattern. They correspond to follicular and acrosyringium of eccrine sweat glands.



Fig. 5: Pinpoint white dots in alopecia areata.

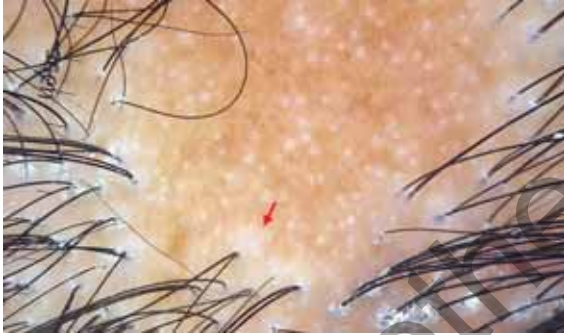


Fig. 6: Pinpoint white dots in scarring alopecia; their distribution is irregular. Note the perifollicular scaling and white patches (red arrow).



Fig. 7: In scarring alopecia, pinpoint white dots are irregularly distributed and interspersed with white patches.

■ YELLOW DOTS^{1,3,4}

- They are round yellow dots, may be arranged singularly or in groups of 2-3 reflecting the number of hairs per follicular unit
- A double margin may be observed in most dots

- They are usually not visible in dark patients but an important diagnostic marker in caucasians
- Yellow dots correspond to dilated infundibular ostia filled with keratosebaceous material
- It may contain vellus hair or broken hair shaft; often it is empty
- Typically present in alopecia areata, yellow dots also can be revealed in AGA, TTM, alopecia areata incognito, etc.



Fig. 8: Yellow dots can be appreciated better owing to the whitish background. Here the whitish background is due to widespread fibrosis in a case of LPP. Note the lone hairs characteristic of LPP.



Fig. 9: Yellow dots in alopecia areata (red arrows). Upper yellow dot contains vellus hair. In pigmented skin, yellow dots appear more whitish. Several exclamation mark hairs as well as many vellus hairs are present in the field.



Fig. 10: Yellow dots in AGA (red arrows). Miniaturized hairs are plenty and are present singularly or in groups of 2–3. Only few terminal hairs are present in this field.



Fig. 11: More close-up view of yellow dots in AGA. Yellow dot marked by red arrow has two borders and contains no hair follicle. Most of the miniaturized hairs are present in groups of 2 per follicular unit.

RED DOTS

- Red dots are one of the specific features of DLE. The other two specific features of DLE are keratotic plugs and enlarged branching vessels.
- They correspond to dilated follicular openings surrounded by dilated vessels.

- Typically seen in DLE in the black where the hypopigmented scalp is present.
- Red dots indicate early disease and so, if treated promptly, hair regrowth is a possibility.⁵
- They may be seen in the glabella of FFA patients because of involvement of eyebrows.
- These red dots are different from those in psoriasis. In DLE, it is related to follicular openings, whereas in psoriasis, it is due to dilated papillary capillaries in the interfollicular scalp.



Fig. 12: Red dots (black arrows) in DLE. They are present around hair follicles. Note other features of DLE like keratotic plugging and brown-gray dots (blue arrow) are also present.



Fig. 13: Close-up view of red dots. Hair follicular unit with group of 2 hairs in this follicular unit is surrounded by dilated vessels marked by blue arrows. Enlarged branching vessels, another feature of DLE, are present in the right side of the field.

BLUE-GRAY DOTS⁶

- In patients with dark phototype, blue-gray dots arranged in a target pattern are characteristic of LPP
- They correspond histopathologically to melanophages in the papillary dermis and are a sign of pigmentary incontinence confined to the hair follicles
- Blue-gray dots can also be seen in DLE where they are present both perifollicularly as well as in speckled pattern.



Fig. 14: Blue-gray dots in target pattern in a case of LPP. Target pattern is due to melanin incontinence surrounding only the perifollicular area and sparing interfollicular region.



Fig. 15: Blue-gray dots in target pattern involving body hairs.



Fig. 16: Blue-gray target pattern over forearm hairs



Fig. 17: In DLE, blue-gray dots are present peri- (black arrow) and interfollicularly (red arrow).

■ PERIPILAR SIGN⁷

- It is a brown halo of roughly 1 mm in diameter around the emergence of the hair shaft. It corresponds pathologically to perifollicular inflammation.
- Typically, it is seen in early AGA. It can also be found in late AGA and telogen effluvium.
- They appear as brown to brown-gray discoloration surrounding the follicular opening.



Fig. 18: Peripilar sign.

■ LOSS OF FOLLICULAR OPENING

- It is a feature of all types of scarring alopecia.
- To differentiate different scarring alopecias, specific trichoscopic findings can help.



Fig. 19: Loss of follicular openings.

EMPT Y FOLLICLES

- They are seen as hair follicles without hairs.
- These blank follicles are found in AGA and telogen effluvium and also sometimes in healthy scalp.



Fig. 20: Empty follicular openings.

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