

# Dermoscopic Distinction of Tinea Incognito on the Face and Topical Steroid Damaged Face: A Cross-Sectional Study in Skin of Color

## Abstract

**Background:** Dermatophytosis is widespread in India due to recalcitrant and resistant infection. Tinea incognito (TI) is modified dermatophytosis due to the inadvertent use of topical steroids (TS). Similarly, topical steroid-damaged face (TSDF) is caused by prolonged use of TS. Distinction of TI and TSDF is difficult when the face is affected. Dermoscopy can assist in the differentiation of both by revealing characteristic features. We evaluated the dermoscopic features in TI affecting the face and TSDF. **Aims and Objectives:** To evaluate the clinical and dermoscopic features of TI affecting the face and TSDF. To observe the involvement of eyelids in TI as opposed to TSDF. **Materials and Methods:** The study was conducted in a tertiary hospital after obtaining ethical clearance and informed consent. Patients with signs of TI or TSDF were enrolled and demographic data were collected. Patients who had applied TS/combination creams were included. A handheld dermoscope with 10x magnification was used. A potassium hydroxide mount was used to confirm the diagnosis of TI. **Results:** Out of 80 patients, 27 males and 53 females were present. The mean duration of application was  $8.25 \pm 7$  months. Clinical features were pruritus, erythema, scaling, and burning sensation. Eyelid involvement was noted in TI while it was spared in TSDF. On dermoscopy, morphological features were predominant in TI whereas vascular structures were found in TSDF in addition to white rosettes. **Conclusion:** Dermoscopy distinguishes TI from TSDF comprehensively by demonstrating definitive features. In addition, the involvement of the eyelid is an excellent clinical sign of TI.

**Keywords:** Dermoscopy, eyelid, micropustules, Tinea incognito, topical steroid

## Introduction

Dermatophytosis has been a menace across India over a few years due to recalcitrant and resistant infection, which could be attributed to structural changes in the causative organism and alterations in the local immunity caused by inadvertent use of topical steroids (TS).<sup>[1]</sup> It involves every possible site in the body including the scalp. Facial lesions are also observed frequently. Patients rely on over-the-counter products that are easily available in India. Unfortunately, these topical preparations consist of a combination of antifungal, antibacterial, and TS, which bring accelerated and temporary relief of symptoms only to reappear. The cycle of application-relief-recurrence continues, eventually resulting in tinea incognito (TI), a modified tinea infection due to aberrant use of topical and systemic steroids<sup>[2,3]</sup> and topical calcineurin inhibitors.<sup>[4]</sup> In such

situations, dermatologists face challenges in the correct diagnosis due to the lack of classical features of dermatophytosis.

Similarly, people in India are obsessed with looking fair which provokes them to use over-the-counter preparations that contain TS alone or in combination with hydroquinone and tretinoin. They reduce pigmentation temporarily; therefore, patients keep applying them regularly for a long time. Prolonged usage of TS alone/combination creams complicates topical steroid-damaged/dependent face (TSDF).<sup>[5]</sup>

Given the pandemic of tinea in India, it is imperative that it could affect the face in patients with TSDF wherein typical features of tinea are missing or new tinea can arise on the face as well. In both instances, lesions mimic photodermatitis, malar rash of lupus erythematosus, and seborrheic dermatitis. Thus, there is a delay in the accurate diagnosis and correct treatment.

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## Access this article online

**Website:** <https://journals.lww.com/idoj>

**DOI:** 10.4103/idoj.idoj\_57\_24

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**How to cite this article:** Ankad BS, Hurakadli SS, Chigurupati E. Dermoscopic distinction of tinea incognito on the face and topical steroid damaged face: A cross-sectional study in skin of color. Indian Dermatol Online J 2024;15:949-54.

**Received:** 18-Jan-2024. **Revised:** 07-May-2024.

**Accepted:** 03-Jul-2024. **Published:** 04-Oct-2024.

For accurate diagnosis, potassium hydroxide (KOH) and skin biopsy are sought, which are usually denied by the patients or deferred by dermatologists.

The utility of dermoscopy in tinea infection/TI and TSDF is well documented.<sup>[6-8]</sup> Although TI and TSDF demonstrate definitive dermoscopic features, a few dermoscopic features, namely, brown globules, telangiectasia, scales, and white hairs, are observed in both conditions.<sup>[6,9,10]</sup> Hence, we analyzed the clinical and dermoscopic features of TI (affecting the face) and TSDF to typify the differentiating features that would help in better patient management.

## Materials and Methods

This was a cross-sectional observational study conducted in a tertiary care hospital from November 2022 to June 2023. Institutional ethical clearance was obtained and informed consent from participants was taken. Patients with pruritic, erythematous scaly patches on the face (signs suggestive of TI and TSDF) with a history of application of TS/combination cream were enrolled in the study. A preparation consisting of TS, antifungal, antibacterial, tretinoin, and hydroquinone was considered as a combination cream. A minimum of 4 weeks of application of TS/combination cream was the criterion for inclusion. Patients with superadded infection, a history of application native medication or other topical preparations (salicylic acid containing), history of photosensitivity on the face were excluded from the study. Demographic details in terms of age, sex, and duration of application were documented. A thorough clinical examination was done.

Dermoscopy of the face including eyelid was performed with ILLUCO IDS 1100 and FotoFinder Handyscope in 10x magnification. The dermoscopic parameters were devised according to consensus by the International Dermoscopy Society namely; (i) pigmented structures (pigment globules, pigment network), (ii) vascular changes (types and distribution of vessels; Y-shaped and polygonal vessels were recorded under branching vessels), (iii) scales (types and distribution) (iv) appendageal structures (follicles and eccrine openings), and (v) morphological structures (micropustules, etc.).<sup>[11]</sup> The diagnosis of TI was proven by 10% KOH preparation with a demonstration of fungal hyphae. The study population was divided into TI or TSDF based on dermoscopic features<sup>[6-8]</sup> and KOH preparation.

## Statistical analysis

The data were collected and analyzed in excel sheet using SPSS version 25.0. Qualitative variables were expressed as frequencies (percentages) and quantitative variables as mean  $\pm$  SD. Fisher's exact and Chi-square tests were applied to statistically express the correlation between

qualitative variables like the absence or presence of dermoscopic features.  $P < 0.05$  was deemed statistically significant.

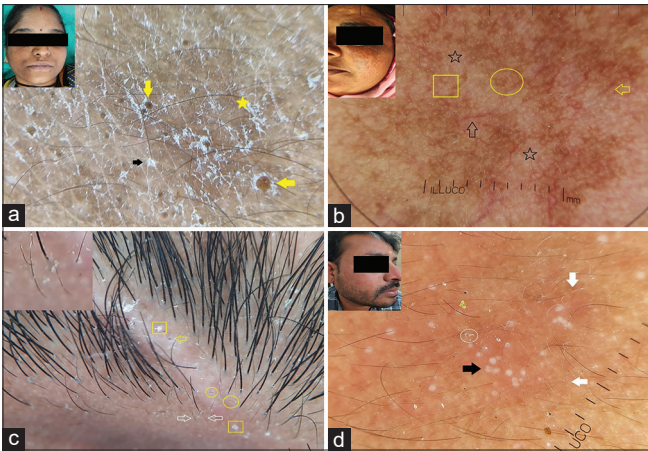
## Results

A total of 80 patients were recruited for the study of which 27 (33.8%) were males and 53 (66.3%) were females. Most of the patients belonged to the age group of 30-50 years (48.75%) with a mean age of  $36.51 \pm 12.1$  years. The mean duration of application was  $8.25 \pm 7$  months. There were 55 (68.8%) patients who used combination creams and 25 (31.3%) patients used only TS. The most predominant clinical features were pruritus, erythema, scaling [Figure 1a and 1b] and burning sensation. Interestingly, upper eyelid involvement was noted in 48 (60%) patients [Figure 1b], out of which 80% (38 patients) had tinea infection elsewhere in the body. The remaining 32 (40%) patients without eyelid involvement had no signs of tinea infection or TI in the other sites of the body. Accordingly, 48 and 32 patients were in the TI and TSDF group, respectively. Involvement of eyelids was statistically significant with  $P < 0.01$ . The demographic and clinical characteristics are depicted in Table 1.

The dermoscopic features included brown globules [Figure 2a], distorted pigment network [Figure 2b], perifollicular scales, broken hairs, black dots and Morse code-like hairs [Figure 2c], micropustules, and translucent/white hairs [Figure 2d]. Brown globules, micropustules, and perifollicular scales had significantly higher proportion in TI with  $P$  value 0.01 in each. Vascular changes included branching [Figure 3a], dotted, and globular, and linear vessels with pinkish background [Figure 3b]. Branching and linear vessels were statistically increased in TSDF with  $P < 0.01$  in each. White rosettes were noted exclusively in 2 patients with TSDF [Figure 3c]. Differentiating patterns in dermoscopy in TI and TSDF are shown in Table 2.



**Figure 1: (a) Topical steroid-damaged face with erythema and mild scaling. Note the sparing of eyelids. (b) Tinea incognito on face showing erythema and scaling. Note the involvement of eyelids**



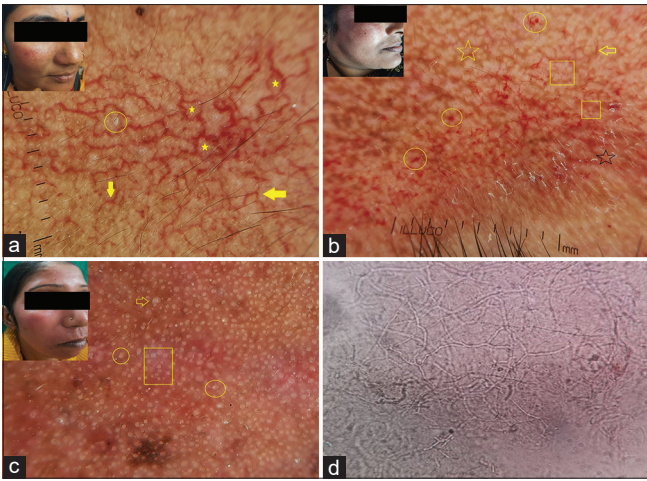
**Figure 2:** Dermoscopy of tinea incognito shows (a) Brown globules, diffuse (yellow star), and perifollicular (black arrow), and periglobular (yellow arrows) scales. (b) Dermoscopy of topical steroid damaged face shows distorted pigment network (yellow circle), linear (yellow arrow) and branching (black arrow) vessels, focal white areas (black star), and white hairs (yellow box). Dermoscopy of tinea incognito shows (c) Broken hairs (yellow circle), black dots (yellow arrow), and Morse code-like hairs (white arrows). Note the focal scales (yellow box). (d) Micropustules (black arrow) and white hairs (white arrows) with few focal scales (white circle) on erythematous background. [Inset: a, b, d - clinical images; c - close-up of Morse code-like hairs]

Among 48 patients with eyelid involvement, KOH preparation was positive in 40 (83.3%) [Figure 3d]. In remaining patients, diagnosis of TI was presumed on the basis of dermoscopic characteristics of TI.<sup>[8,12]</sup> Dermoscopy of eyelid in TI revealed features akin to TI; brown globules, scales, and micropustules [Figure 4a]. In contrast, dermoscopy of eyelid in TSDF demonstrated pinkish hue due to rich vascularity [Figure 4b]. Sebum excrescences [Figure 3a] and Demodex tails [Figure 4c] were noted in three and five patients of TSDF, respectively. Five patients of TI showed sebum excrescences and Demodex tail was noted in one of the patients of TI.

Discussion

TI is typified by the altered morphology due to TS/combination cream and topical calcineurin inhibitors. These cause inhibition of beneficial cytokines leading to local immunosuppression and reducing the keratinocytes proliferation, which favors the growth of fungus. A suboptimal dose of antifungal in the combination results in prolonged treatment and chronic course.<sup>[13]</sup>

Although morphology is modified, TI is diagnosed by the presence of a well-demarcated border with scales. However, TI occurring on the face has pronounced erythema, scaling, and ill-defined margin which pose a challenge in diagnosis.<sup>[14]</sup> Another condition that consequences due to misuse of TS/combination cream is TSDF. The wider and easier availability of TS/combination cream (used as fairness/beauty cream) is the crucial factor in TSDF. TS first appears to resolve the primary dermatosis due to its anti-inflammatory and vasoconstrictive effects. Later, it



**Figure 3:** Dermoscopy of topical steroid damaged face showing (a) Branching (yellow arrow) and polygonal (yellow stars) vessels, and sebum excrescences (yellow circle). (b) Globular (yellow circles), dotted (yellow box), and linear (yellow arrow) vessels and vascular polygons (yellow stars). Note the curvilinear pigment lines (yellow star) and scales (black star). (c) Numerous white rosettes (yellow box), dilated follicular ostia (yellow arrow), and sebum excrescences (yellow circles) on a pinkish background. [Inset: clinical images with the sparing of eyelid]. (d) Microscopy of potassium hydroxide shows fungal hyphae [10x]

**Table 1: Demographic and clinical characteristics of the study subjects**

Characteristic	Observed value, n (%)
Age (yr)	36.51±12.1*
≤30	30 (37.5)
30–50	39 (48.75)
>50	11 (13.75)
Gender	
• Male	27 (33.8)
• Female	53 (66.3)
Duration (in months)	8.25±7*
Clinical features	
Pruritus	
• Present	49 (61.3)
• Absent	31 (38.8)
Burning	
• Present	41 (51.2)
• Absent	39 (48.8)
Eyelid involvement	
• Present	48 (60)
• Absent	32 (40)
Erythema	
• Present	42 (52.5)
• Absent	38 (47.5)
Scaling	
• Present	57 (71.3)
• Absent	23 (28.7)

\*Values as mean±SD

complicates epidermal atrophy, degenerative changes in the dermis, and collagen degradation.<sup>[15]</sup>





**Figure 4:** Dermoscopy on the eyelid in tinea incognito shows (a) Micropustules (yellow arrows) and white hairs (yellow circle) with diffuse (yellow star) and periglobular (yellow box) scales and circular (red circle) and semicircular (white arrow) pattern of focal scales. Note the whitish halo around brown/black globules (red arrows). (b) Dermoscopy in topical steroid-damaged face shows linear vessels (yellow arrows), a distorted pigment network with brown (black arrow), and grey (white arrow) pigment globules in a curvilinear pattern. Note the focal white areas (black stars) [Inset: clinical images]. (c) Dermoscopy of *Demodex* tail shows slender and longer whitish spicules (yellow arrows) emerging through follicular ostia

Dermoscopy demonstrates characteristic features in many conditions, especially facial dermatoses where skin biopsy is denied by patients. Dermoscopy in TI shows white roundish globules (micropustules), brown/black globules, perifollicular scales, concentric erythematous areas separated by scales, and Morse code-like, broken and translucent hairs (white hair).<sup>[8,12,16]</sup> Dermoscopy of TSDF reveals brown globules, red areas, telangiectasia, focal white areas, follicular plugs, *Demodex* tails, white hairs, and scaling on an erythematous background.<sup>[6,17]</sup>

In this study, pigmentary changes included brown globules, which were due to excoriation with hemosiderin deposition and melanin, and were noted in both TI and TSDF. It is meaningful to note that the color of brown globules appears as black due to an increase in melanin. Brown globules also may represent underlying melasma for which the patient might have applied TS/combination cream. In this study, statistically higher frequency ( $P < 0.01$ ) of brown globules in TI is conceivably due to intense itching, as compared to TSDF. Distortion of pigment network, due to reduced amount of melanin in the epidermis as a result of TS/combination cream was noted in both. Three patients with TSDF demonstrated wavy and curvilinear brown to grey streaks which are characteristic features of exogenous ochronosis (EO) [Figure 4c]. It is in a similar line with previous reports.<sup>[10,18]</sup> Thus, dermoscopy facilitates early recognition of EO for better patient management through proper counseling about the side effects of TS/combination cream. Focal white areas were noted in TSDF [Figures 2b and 4c] and they were not seen in TI. Thus, the presence of focal white areas favors the diagnosis of TSDF.

**Table 2: Dermoscopic differences between tinea incognito and topical steroid damage/dependent skin**

Features	Tinea incognito <i>n</i> =48	TSDF* <i>n</i> =32	<i>P</i>
Dotted vessels	0	5	<0.05*
Linear vessels	1	30	<0.01**
Globular vessels	1	4	0.1514
Branching vessels	0	23	<0.01**
Perifollicular scale	29	5	<0.01**
Micropustules	16	0	<0.01**
Brown globules	41	16	<0.01**
White hairs	13	24	<0.01**

\*statistically significant. \*\*highly statistically significant

Bhat *et al.* and Piccolo *et al.* described a yellowish-white halo around brown globules.<sup>[8,19]</sup> Its histopathological correlation is not described by the authors, yet this feature with follicular micropustules suggestive of systemic therapy in TI. We could find this feature on the eyelid in one patient. We propose that it is partially formed micropustules around a black dot (hair broken at surface level) [Figure 4a].

Another important dermoscopic feature was scales which have a diagnostic clue and are because of hyperkeratosis and parakeratosis. Generally, scales are arranged in a particular pattern, especially; focal, perifollicular, diffuse, eccentric and collarette.<sup>[11]</sup> In this study, scales were subtle in TSDF while in TI scales were profuse. Perifollicular and periglobular [Figures 2a and 4a] location of scales was predominant in TI as compared to TSDF. It is possibly due to follicular invasion of fungal elements. Furthermore, focal scales were characteristically arranged in circular and semicircular fashion in TI [Figure 4a] and this is attributed to focal parakeratosis.<sup>[20]</sup>

Micropustules appear as roundish white globules on dermoscopy and correspond to the collection of inflammatory infiltrates in the epidermis. They were noted exclusively in TI patients in this study and it is in accordance with previous reports.<sup>[16,19]</sup> They were noted in follicular and interfollicular positions as well. Hence, micropustules play a significant role in the distinction of TI from TSDF. Although micropustules are described in TSDF by Sethi *et al.*,<sup>[6]</sup> authors have not explained their histopathological correlation. Thus, further studies are warranted to ascertain the presence of micropustules in TSDF.

We also observed whitish spicules both in TI and TSDF which correlate with either *Demodex* tails or sebum excrescences. Dermoscopy helps in differentiation; the *Demodex* tail [Figure 4c] is slender and longer, and emerges through a follicular opening without hair,<sup>[21]</sup> while sebum excrescence [Figure 3a and 3c] is broader and shorter with a dome-shaped edge, which comes out of follicular ostium with vellus hair.<sup>[22]</sup>

Vascular structures play a crucial role in the diagnosis. In this study, dotted, branching, globular, and linear vessels were noted and they correlate with dilatation and horizontal position of the capillaries in the dermis. In detail, linear and branching (Y-shaped and polygonal) [Figure 3b] vessels were statistically predominant in TSDF with  $P < 0.01$  due to epidermal atrophy. This finding was in line with previous reports.<sup>[6,17,23]</sup> In contrast, vascular changes were minimal in TI which demonstrated dotted, globular, and linear vessels. Consequently, vascular structures act as a significant piece of information in the differentiation of TI and TSDF dermoscopically. Theoretically, in the view of TS application in TI lesions, vessels would be expected yet the profuse scales and pigmentation cause improper visibility of vessels.

Follicular changes in TI included translucent/white hairs and black dots, which are, respectively, as a result of vellus hair shaft invasion by the fungus and breakage of hair at skin surface level. White hairs were statistically significant in TSDF with  $P < 0.01$ . This might be attributed to the demelanizing effect of TS due to the inhibitory action on the synthesis of prostaglandins and leukotriene.<sup>[24]</sup> In contrast to earlier reports,<sup>[9,25]</sup> broken hairs and Morse code-like hair were observed in a smaller number of patients in this study. This discrepancy could be due to the small sample size and selection of the site of lesions. In our study, only the face (vellus hairs) was selected for the analysis whereas in the previous reports, both facial (vellus) and non-facial skin (terminal) were assessed. Follicular plugging was another feature that was noted in both TI and TSDF. In a recent study by Kwak *et al.*,<sup>[26]</sup> follicular changes TI were in similar to our study. Telangiectasia and arborizing vessels were noted in their study in contrast to dotted, linear, and globular vessels observed in our study. This difference could be explained on the basis of heavy melanin present in the epidermis obscures the visibility of vessels in patients with skin prototypes 4 and 5. Nevertheless, KOH-negative patients of TI were also included in the present study.

Interestingly, numerous white rosettes were illustrated in two patients with TSDF. White rosettes are produced because of the optical phenomenon of polarised light. They represent hyperkeratosis of dilated follicular infundibulum. None of the preceding reports have mentioned this finding in TSDF. This is a new observation in this study. Rosettes were not seen in TI. Probably atrophic skin and sunlight exposure are the source of rosettes in TSDF. Further studies are warranted to validate this finding. However, rosettes are not a specific finding as it is found in many dermatoses including actinic keratosis, discoid lupus erythematosus,<sup>[27,28]</sup> etc. To synopsise, morphological features such as brown globules, scales, hair changes with yellowish-white halo, and micropustules were predominant in TI while vascular structures were pronounced in TSDF.

Finally, eyelid involvement was exclusively noted in TI. This was found in none of the TSDF patients. This is

certainly due to the fact that patients with TSDF would not have applied TS/combination cream on the eyelid as it could cause irritation. In contrast, in TI, the fungal infection spreads unchecked onto the eyelid due to suboptimal dosage of antifungal agent in combination cream and decreased local immunity because of TS application. Hence, we propose that eyelid involvement is a distinctive clinical sign that differentiates TI affecting the face and TSDF. Thus, careful examination of eyelid involvement is crucial to arrive at an accurate diagnosis.

### Limitations

A small sample size, lack of skin biopsy and fungal culture, and diagnosis of TI was based exclusively on dermoscopic features in few patients were some of the limitations of the study. Study subjects were not categorized based on application of TS alone or combination cream. The effect of the potency of TS was not analyzed in the study.

### Conclusion

Dermoscopy distinguishes TI from TSDF comprehensively by demonstrating definitive features. In addition, involvement of eyelid is an excellent clinical sign that helps in the diagnosis of TI against TSDF. In the view of current scenario of boundless tinea infection across India, observations that are established in this study would benefit dermatologists to make proper diagnosis and correct management of TI and TSDF.

### Declaration of patient consent

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

### Financial support and sponsorship

Nil.

### Conflicts of interest

There are no conflicts of interest.

### References

1. Bishnoi A, Vinay K, Dogra S. Emergence of recalcitrant dermatophytosis in India. *Lancet Infect Dis* 2018;18:250-1.
2. Nowowiejska J, Baran A, Flisiak I. Tinea incognito-A great physician pitfall. *J Fungi (Basel)* 2022;8:312.
3. Dhaher S. Tinea incognito: Clinical perspectives of a new imitator. *Dermatol Reports* 2020;12:8323.
4. Siddaiah N, Erickson Q, Miller G, Elston DM. Tacrolimus-induced tinea incognito. *Cutis* 2004;73:237-8.
5. Lahiri K, Coondoo A. Topical steroid damaged/dependent face (TSDF): An entity of cutaneous pharmacodependence. *Indian J Dermatol* 2016;61:265-72.
6. Sethi S, Chauhan P, Jindal R, Bisht YS. Dermoscopy of topical

- steroid-dependent or damaged face: A cross-sectional study. *Indian J Dermatol Venereol Leprol* 2022;88:40-6.
7. Ankad BS, Mukherjee SS, Nikam BP, Reshme AS, Sakhare PS, Mural PH. Dermoscopic characterization of dermatophytosis: A preliminary observation. *Indian Dermatol Online J* 2020;11:202-7.
8. Bhat YJ, Keen A, Hassan I, Latif I, Bashir S. Can dermoscopy serve as a diagnostic tool in dermatophytosis? A pilot study. *Indian Dermatol Online J* 2019;10:530-5.
9. Sonthalia S, Ankad BS, Goldust M, Jha AK. Dermoscopy- a simple and rapid *in vivo* diagnostic technique for tinea incognito. *An Bras Dermatol* 2019;94:612-4.
10. Ankad BS, Anusha HL, Raghuvver C, Nikam BP, Rangappa M. Skin changes on the face caused by over-the counter cosmetic creams: An observational study of clinical and dermoscopy features. *India J Pharma Pract* 2023;16:13-9.
11. Errichetti E, Ankad BS, Jha AK, Sonthalia S, Akay BN, Bakos R, *et al.* International dermoscopy society criteria for non-neoplastic dermatoses (general dermatology): Validation for skin of color through a Delphi expert consensus. *Int J Dermatol* 2022;61:461-71.
12. Lim SS, Shin K, Mun J-H. Dermoscopy for cutaneous fungal infections: A brief review. *Health Sci Rep* 2022;5:e464.
13. Dutta B, Rasul ES, Boro B. Clinico-epidemiological study of tinea incognito with microbiological correlation, *Indian J Dermatol Venereol Leprol* 2017;83:326-31.
14. Verma SB, A closer look at the term 'tinea incognito': A factual as well as grammatical inaccuracy. *Indian J Dermatol* 2017;62:219-20.
15. Jain S, Mohapatra L, Mohanty P, Jena S, Behera B. Study of clinical profile of patients presenting with topical steroid-induced facial dermatosis to a tertiary care hospital. *Indian Dermatol Online J* 2020;11:208-11.
16. Ankad BS, Reshme AS, Nikam BP, Drago ND. Dermoscopic differentiation of pustular psoriasis and tinea incognito. *Clin Dermatol Rev* 2020;4:136-40.
17. Jakhar D, Kaur I. Dermoscopy of Topical Steroid Damaged/Dependent Face. *Indian Dermatol Online J* 2018;9:286-7.
18. Khunger N, Kandhari R. Dermoscopic criteria for differentiating exogenous ochronosis from melasma, *Indian J Dermatol Venereol Leprol* 2013;79:819-21.
19. Piccolo V, Corneli P, Russo T, Zalaudek I, Alfano R, Argenziano G. Dermoscopy as a useful tool in diagnosis of tinea incognito. *Int J Dermatol* 2019;58:e32-4.
20. Park YW, Kim DY, Yoon SY, Park GY, Park HS, Yoon HS, *et al.* 'Clues' for the histological diagnosis of tinea: How reliable are they? *Ann Dermatol* 2014;26:286-8.
21. Friedman P, Sabban EC, Cabo H. Usefulness of dermoscopy in the diagnosis and monitoring treatment of demodicidosis. *Dermatol Pract Concept* 2017;7:35-8.
22. Vinay K, Ankad BS. Dermoscopic features of pigmentary diseases in ethnic skin. *Indian Dermatol Online J* 2021;12:24-33.
23. Sonthalia S, Jha AK, Sharma R. The role of dermoscopy in a topical steroid-damaged face. *Dermatol Pract Concept* 2018;8:166-7.
24. Gupta AK, Gover MD, Nouri K, Taylor S. The treatment of melasma: A review of clinical trials. *J Am Acad Dermatol* 2006;55:1048-65.
25. Knopfler N, delPozo LJ, Escudero MD, Martín-Santiago A. Dermoscopic visualization of vellus hair involvement in tinea corporis: A criterion for systemic antifungal therapy? *Pediatr Dermatol* 2015;32:e226-7.
26. Kwak HB, Lee SK, Yoo HH, Lee JJ, Lee GJ, Nam KH, *et al.* Facial tinea incognito: A clinical, dermoscopic and mycological study of 38 cases. *Eur J Dermatol* 2023;33:101-8.
27. Valdés-Morales KL, Peralta-Pedrero ML, Cruz FJ, Morales-Sánchez MA. Diagnostic accuracy of dermoscopy of actinic keratosis: A systematic review. *Dermatol Pract Concept* 2020;10:e2020121.
28. Ankad BS, Shah SD, Adya KA. White rosettes in discoid lupus erythematosus: A new dermoscopic observation. *Dermatol Pract Concept* 2017;7:9-11.