



Case Report

Extensive Striae Secondary to Inadvertent use of Topical Corticosteroids: Through the Dermoscope

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ABSTRACT

Topical steroids form the mainstay of treatment of dermatological disorders. Unfortunately, these are also one of the most common drugs being abused by patients in our country. The present case showcases one of the more common side effects of overuse of topical corticosteroids, skin atrophy in the form of striae, with their dermoscopic characterization.

Keywords: Corticosteroids, Dermoscopy, Skin atrophy, Striae

INTRODUCTION

Topical corticosteroids are one of the most widely used preparations in dermatology.^[1] Their fast onset of action and cost profile makes them an ideal candidate for the effective treatment of inflammatory disorders of the Skin.^[2] However, these preparations are proving to be a double-edged sword. Due to the easy availability of topical corticosteroids as an over-the-counter medication, cases of abuse of these drugs are on a constant rise.^[3] With one of the common side effects of skin atrophy in the form of striae, unsupervised and overuse of topical steroids can cause a variety of adverse cutaneous changes, including telangiectasias, purpura, ulceration, hypertrichosis, and innumerable others.^[4] Despite striae being the most common side effect of these preparations, data of their dermoscopic characterization are lacking in the literature. Herein, we report a case of a 30-year-old male with extensive striae due to the overuse of topical corticosteroids with their dermoscopic features.

CASE REPORT

A 30-year-old male presented to the dermatology OPD with the chief complaints of pale to skin-colored, depressed, and unsightly looking linear skin lesions around the bilateral axillae. On questioning, he was found to be a biopsy-proven case of pemphigus vulgaris. The patient had been prescribed a combination of betamethasone (0.1%) and fusidic acid (2%) in a cream formulation by the treating physician during the active phase of his disease.

After the patient went into remission, he did not follow up with his doctor and continued to use the above-mentioned topical formulation inadvertently for about a year, even for the slightest of pruritic sensations.

On examination, multiple, extensive, pale to skin colored, and linear atrophic striae were seen around the bilateral axillary areas [Figure 1]. Dermoscopy of the lesions was performed with Heine Delta 20T Dermatoscope at $\times 10$. The dermoscopic examination revealed multiple, linear, telangiectatic, and interconnecting red vessels on a background of white structureless areas [Figure 2].

DISCUSSION

Topical corticosteroids are the most used as well as abused drugs in dermatology in India.^[5] These formulations are not only being used for their approved dermatological indications, rather they are also being recklessly used and prescribed for symptomatic relief in conditions such as acne, dermatophytosis, pyodermas, and also as fairness



Figure 1: Multiple, extensive, pale to skin colored, and linear atrophic striae around the bilateral axillary areas.

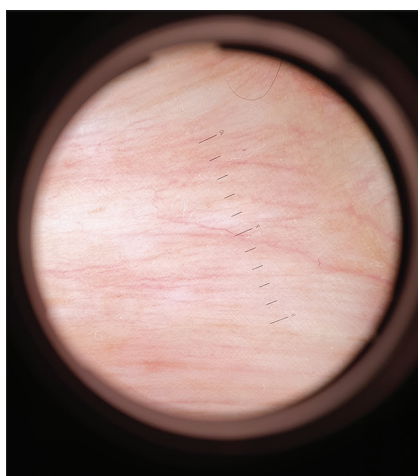


Figure 2: Multiple, linear, telangiectatic, and interconnecting red vessels on a background of white structureless areas (Heine Delta 20T Dermatoscope, $\times 10$).

creams.^[6] Unsupervised use of these drugs leads to a plethora of cutaneous side effects, an epidemic that our country is currently facing.^[7]

Cutaneous adverse events with topical steroids include stinging, burning, exacerbation of acne, delayed wound healing, dyspigmentation, epidermal thinning, hypertrichosis, skin atrophy, exacerbation, and increased susceptibility to bacterial, fungal, and viral infections of the skin. Overuse of these drugs may also rarely lead to systemic adverse events in the form of glaucoma, cataract, Cushingoid habitus, glucose intolerance, osteopathy, hypocalcemia, and hypertension.^[4]

Dermoscopy is emerging as a useful non-invasive tool for the assessment of various cutaneous disorders. At present, visual inspection remains the mainstay to look for signs of skin atrophy such as striae and telangiectasias.^[8] A limited number of authors have documented the dermoscopic features of topical steroid induced skin atrophy. They have documented features such as irregularly dilated, tortuous, polygonal and interconnecting blood vessels, white areas with no structure, and yellowish areas on dermoscopic assessment of striae.^[9,10] Dermoscopy in our case also revealed multiple, linear, telangiectatic, and interconnecting red vessels on a background of white structureless areas which were consistent with the findings described previously. Our findings are also in line with those reported by Ravindran *et al.*^[11]

The telangiectatic vessels seen on dermoscopy were not visible yet on naked eye examination. Hence, dermoscopy could be used as a tool to diagnose steroid atrophy in its incipient stages or as some authors have called it, “steroid pre-atrophy.”^[9]

CONCLUSION

This case highlights the ongoing abuse of topical corticosteroids in India, which forms just the tip of the iceberg among many other drugs. These formulations are available over the counter easily in India, leading to their abuse by patients. Cases like these underscore the need to regulate the dispensing practices of not only topical steroids but also all the drugs that are sold without the prescription of a registered medical practitioner. Our case also emphasizes the growing use of dermoscopy as a diagnostic tool and its indication in diagnosing steroid-induced atrophy in the early stages.

Declaration of patient consent

Patient's consent not required as patient's identity is not disclosed or compromised.

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Conflicts of interest

There are no conflicts of interest.

REFERENCES

1. Rathi SK, D'Souza P. Rational and ethical use of topical corticosteroids based on safety and efficacy. *Indian J Dermatol* 2012;57:251-9.
2. Buttgerit F, Burmester GR, Lipworth BJ. Optimised glucocorticoid therapy: The sharpening of an old spear. *Lancet* 2005;365:801-3.
3. Saraswat A, Lahiri K, Chatterjee M, Barua S, Coondoo A, Mittal A, *et al.* Topical corticosteroid abuse on the face: A prospective, multicenter study of dermatology outpatients. *Indian J Dermatol Venereol Leprol* 2011;77:160-6.
4. Coondoo A, Phiske M, Verma S, Lahiri K. Side-effects of topical steroids: A long overdue revisit. *Indian Dermatol Online J* 2014;5:416-25.
5. Kumar S, Goyal A, Gupta YK. Abuse of topical corticosteroids in India: Concerns and the way forward. *J Pharmacol Pharmacother* 2016;7:1-5.
6. Ambika H, Vinod CS, Yadalla H, Nithya R, Babu AR. Topical corticosteroids abuse on face: A prospective, study on outpatients of dermatology. *Our Dermatol Online* 2014;5:5-8.
7. Srivastava A, Choudhary S. Extensive striae due to topical corticosteroid abuse. *Indian J Pharmacol* 2022;54:63-4.
8. Balkrishnan R, Carrol CL, Camacho FT, Feldman SR. Electronic monitoring of medication adherence in skin disease: Results of a pilot study. *J Am Acad Dermatol* 2003;49:651-4.
9. Vázquez-López F, Marghoob AA. Dermoscopic assessment of long-term topical therapies with potent steroids in chronic psoriasis. *J Am Acad Dermatol* 2004;51:811-3.
10. Niculet E, Bobeica C, Tatu AL. Glucocorticoid-induced skin atrophy: The old and the new. *Clin Cosmet Investig Dermatol* 2020;13:1041-50.
11. Ravindran S, Prabhu S, Nayak SU. Topical steroid damaged skin: A clinico-epidemiological and dermatological study. *J Pak Assoc Dermatol* 2021;31:407-14.

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