Psoriatic Lesions Over Keloidal Plaques After Intralesional Triamcinolone

Dear editor,

The phenomenon of Koebnerization is distinctly known in psoriasis; however, the occurrence of this phenomenon over the keloidal plaques is rare.

A 37-year-old woman presented to us with a complaint of multiple keloidal lesions over the back for 26 years. No treatment was taken for these lesions until 2 years ago when she started receiving intralesional triamcinolone 40 mg/mL. Four sittings were taken at a gap of 3 weeks each. She also had scalp psoriasis for the last 10 years and took topical treatment for the same intermittently. There were no psoriatic lesions anywhere else until 2 years ago when she noticed red scaly lesions over the keloidal plaques 4 weeks after the first intralesional triamcinolone injection. On examination, multiple firm-to-hard, keloidal plaques of varying sizes ranging from as small as 3 × 3 cm to as large as 5 × 5 cm were present over the back. Superimposed on these lesions, there was the presence of erythematous scaly plaques on which the Grattage test and Auspitz sign were positive [Figure 1]. Dermoscopy of the psoriatic lesion revealed a light red background with a few red dotted vessels, patchy scale distribution, whereas dermoscopy from adjacent keloidal areas showed white patches denoting scarring with absent vascularization and minimal white scaling in a diffuse pattern [Figure 2]. Skin biopsy was taken from two sites; one from the psoriatic lesion (sample A) over the keloidal plaque and another from keloidal plaque (sample B). Histopathology from sample A revealed parakeratosis, regular acanthosis with neutrophilic exocytosis [Figure 3a]. Dermis showed a moderate level of mononuclear infiltrates in the perivascular location. An unencapsulated haphazardly arranged collagen dense focus is noted in the mid and deep dermis. Histopathology from sample B revealed mild hyperkeratosis and the dermis showed unencapsulated haphazardly arranged collagen fibers with irregular edges [Figure 3b]. The coexistence of psoriatic lesion over the keloid lesion has been rarely reported, only few previous reports elicit the occurrence of psoriasis over keloidal lesions.[1-3] This is probably the first case, in which this phenomenon was elicited in keloid post intralesional triamcinolone injection. Speculative pathogenetic factors of the Koebner phenomenon are genetic, immunological, vascular, dermal, enzymatic, inhibitory, neural, growth, and hormonal. In our case, probable reasons for psoriatic lesion post intralesional triamcinolone injection on keloid lesion can be frequent irritation and rubbing of the keloids; immunological alterations in keloids such as an increased transforming growth factor-b gene expression, interleukin-1, insulin-like growth factor-1, platelet-derived growth factor, and tumor necrosis factor; increase in tryptase levels following trauma, which produce insulin growth factor-1 (IGF-1), responsible for causing epidermal hyperplasia in psoriasis.[4,5]

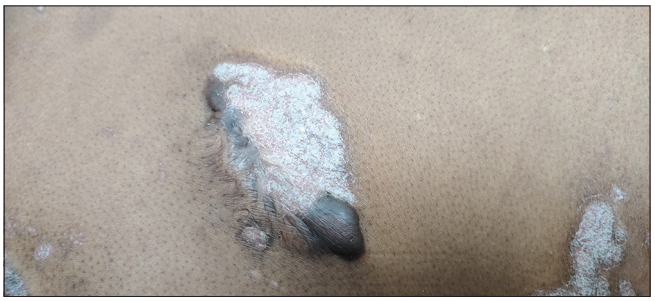

Figure 1: Erythematous, silvery-white scaly plaque present over keloidal lesions

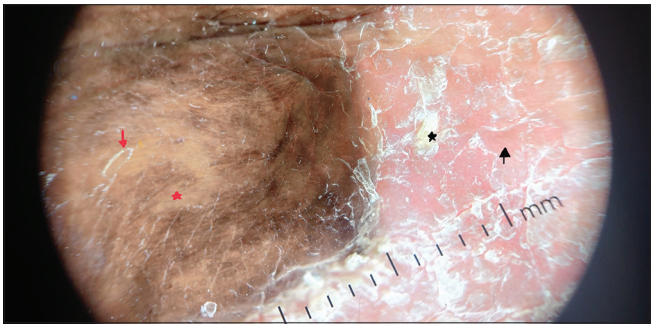

Figure 2: Dermoscopy of psoriasis plaque showing light red background (black arrow) with patchy scales (black star) and adjacent keloidal area with white patches denoting scarring (red star) and minimal white scales (red arrow) (Dermlite DL4, contact dermoscopy, 10 × polarized mode)

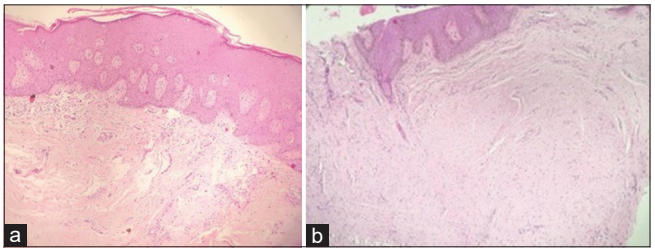

Figure 3: (a) Histopathological examination of psoriatic plaque shows parakeratosis, regular acanthosis with neutrophilic exocytosis. Dermis shows a moderate mononuclear infiltrate in the perivascular location and an unencapsulated haphazardly arranged collagen dense focus in the mid and deep dermis. (H&E stain, 40×). (b) Histopathological examination of the keloidal plaque shows mild hyperkeratosis, and dermis shows unencapsulated haphazardly arranged collagen fibers with irregular edges. (H&E stain, 40×)

Acknowledgments

We wish to extend our special thanks to Dr. Anita Nangia, Director Professor, Department of Pathology for helping us with the histopathology slides of this case.

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.

Jyoti Yadav, Rashmi Sarkar, Sonika Soni, Vibhu Mendiratta

Department of Dermatology, Lady Hardinge Medical College, New Delhi, India

Address for correspondence:
Dr. Rashmi Sarkar,
Department of Dermatology, Lady Hardinge Medical College, New Delhi, India.
E-mail: rashmisarkar@gmail.com

References

1. Binitha MP, Betsy A, Lekha T. Psoriasis occurring as a koebner phenomenon over keloids. Indian J Dermatol 2013;58:329.
2. Gupta S. Many faces of Koebner phenomenon in psoriasis. Indian J Dermatol Venereol Leprol 2002;68:222-4.
3. Handa S, Dogra S, Kaur I. Pustular psoriasis over keloids: Is it a Koebner phenomenon? Clin Exp Dermatol 2006;31:601-2.
4. Miura H, Sano S, Higashiyama M, Yoshikawa K, Itami S. Involvement of insulin-like growth factor-1 in psoriasis as a paracrine growth factor: Dermal fibroblasts play a regulatory role in developing psoriatic lesions. Arch Dermatol Res 2000;292:590-7.
5. Namazi MR. Possible molecular mechanisms to account for the involvement of tryptase in the pathogenesis of psoriasis. Autoimmunity 2005;38:449-52.

Access this article online

Website: www.idoj.in

Quick Response Code

DOI: 10.4103/idoj.idoj_570_21

How to cite this article: Yadav J, Sarkar R, Soni S, Mendiratta V. Psoriatic lesions over keloidal plaques after intralesional triamcinolone. Indian Dermatol Online J 2022;13:519-20.

Received: 08-Sep-2021. **Revised:** 10-Oct-2021.
Accepted: 04-Nov-2021. **Published:** 24-Jun-2022.