

Images/Instrument in Dermatology/Dermatosurgery

Prurigo nodularis-like pattern of *Parthenium* dermatitis

Rojita Akham¹, Surajbala Khuraijam¹

¹Department of Dermatology, Venereology and Leprosy, All India Institute of Medical Sciences, Rishikesh, Uttarakhand, India.



***Corresponding author:**

Rojita Akham,
 Department of Dermatology,
 Venereology and Leprosy,
 All India Institute of
 Medical Sciences, Rishikesh,
 Uttarakhand, India.

rojitaakham2512@gmail.com

Received : 17 August 2022
 Accepted : 29 August 2022
 Published : 07 September 2022

DOI
 10.25259/CSDM_86_2022

Quick Response Code:



A 34-year-old female presented with generalized, intensely pruritic papules and nodules of 20 years duration, with a history of exacerbation in the past 5 years. Detailed history revealed exposure to the *Parthenium* plant and personal history of atopy. Cutaneous examination revealed multiple papules and nodules over the dorsa of hands, extensors of the upper and lower extremities, and abdomen [Figure 1a and b]. The diagnoses of prurigo nodularis, prurigo nodularis-like pattern of *Parthenium* dermatitis, and hypertrophic lichen planus were kept in the differential.

Patch test done with an Indian Standard Series showed a blister formation over an erythematous base to the *Parthenium* allergen (15% extract in petrolatum) on day 3 [Figure 1c] and an



Figure 1: (a and b) Prurigo-like nodules on upper and lower extremities. (c) Patch test (Indian Standard Series) reading, 3+ at day 3. (d) Histopathology (H&E stain, ×40) showing compact hyperkeratosis, parakeratosis, and mild spongiosis with perivascular lymphocytic infiltrate.

This is an open-access article distributed under the terms of the Creative Commons Attribution-Non Commercial-Share Alike 4.0 License, which allows others to remix, transform, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

©2022 Published by Scientific Scholar on behalf of CosmoDerma

erythematous indurated plaque with a central hemorrhagic crust on day 5.

Skin biopsy revealed compact hyperkeratosis, parakeratosis, mild spongiosis, irregular acanthosis, and patchy perivascular dermal lymphocytic infiltrate which are consistent with chronic dermatitis [Figure 1d]. A diagnosis of prurigo nodularis-like pattern of *Parthenium* dermatitis was made. The patient was started on oral azathioprine 100 mg daily, antihistamines, and topical steroids and responded favorably. She was counseled to avoid exposure to the *Parthenium* plant and to use physical protection measures.

Parthenium dermatitis accounts for 40% of patients attending contact dermatitis clinics and is the most common cause of plant dermatitis in India.^[1] This allergic contact dermatitis has a trend of changing its clinical pattern over time. The common presentations of *Parthenium* dermatitis include airborne contact dermatitis pattern, chronic actinic dermatitis, mixed pattern, exfoliative, and widespread dermatitis.^[1] Prurigo nodularis-like *Parthenium* dermatitis is often difficult to diagnose due to sparing of typical sites of airborne contact dermatitis. Patch testing with plant allergen is a useful scientific diagnostic tool that unravels the causative allergen. The plant allergen can be extracted in different solvents, including water, acetone, alcohol, ether, acid, and alkali, and then used for patch testing. Parts of fresh, frozen, and dried plants can also be used for patch testing, but this

carries a significant risk of false-positive irritant reactions and occasionally a risk of test sensitization.^[1] We hereby stress the importance of detailed history and patch test while investigating atypical manifestations of any suspected allergic contact dermatitis, for example, in this case, a prurigo nodularis-like pattern of *Parthenium* dermatitis.

Declaration of patient consent

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

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

REFERENCE

1. Sharma VK, Verma P. *Parthenium* dermatitis in India: Past, present and future. Indian J Dermatol Venereol Leprol 2012;78:560-8.

How to cite this article: Akham R, Khurajam S. Prurigo nodularis-like pattern of *Parthenium* dermatitis. *CosmoDerma* 2022;2:80.