

Acral pityriasis rosea: A rare variant of pityriasis rosea

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Letter

Pityriasis rosea (PR) is a common, self-limited inflammatory skin condition, usually affects the trunk and proximal extremities. A variety of atypical manifestations of PR have been recognized ranging from the difference in the morphology, distribution, and course. Herein, the rare form of acral PR in an adult has been illustrated as the 29-year-old Thai female who presented with generalized erythematous papules and plaques with peripheral collarette scales on the trunk and extremities, prominently on the hands and feet (Figures 1-3). The face and mucous membranes were spared. The patient denied associated systemic symptoms such as fever. There was no history of genital ulceration. The provisional diagnosis of PR was initially made due to the presence of fine collarette scales, the oval morphology of the lesions, and the Christmas-tree distribution. Secondary syphilis, erythema annulare centrifugum and psoriasis were also considered as the differential diagnoses.

The rapid plasma reagin (RPR) and treponema pallidum particle agglutination (TPPA) assays were both negative. Blood test for anti-HIV was not collected.

Histopathology showed spongiotic dermatitis with lymphocytes. Superficial perivascular infiltration with lymphocytes and extravasation of red blood cells were observed without an evidence of plasma cell (Figure 4). Hyperkeratosis and parakeratosis were also noted. All histologic findings supported the diagnosis of PR. Despite the treatment with moderate potency topical corticosteroids and the four-week course of oral roxithromycin, the disease continued to progress. A short course of oral prednisolone (0.5 mg/kg/day) was added which finally led to a complete resolution. There was no recurrence on the 3-month followed-up period.

Acral, or palmoplantar, PR can affect patients of all ages but there have been more reports in adults. The morphology of acral PR varied from scaly plaques to vesicles, however, the latter were usually categorized as vesicular PR variant. Although acral PR had been defined as primary and secondary eruptions confined to the acral parts, the rash on the other locations, e.g. the trunk and distal extremities, usually coexist.¹ To date, there have been less than ten published cases of acral PR in English literature.¹⁻⁵ It is difficult to delineate the clinical pattern of acral PR due to an insufficient number of cases. In general, acral PR would be diagnosed when the palmoplantar areas were involved where the rash can either limited to the acral sites or extended beyond the palms or soles. The management of acral PR was identical to those of the classic disease. The course and prognosis were unaffected in this variant.

Criteria for diagnosis of PR were proposed by Chuh *et al.*¹ comprised three

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Figure 1. Typical erythematous papules with collarette scales on the palms.



Figure 2. The generalized eruption was evidenced on the entire legs with collarette scales on the palms.

major components as follows; the “essential”, “optional”, and “exclusional” clinical characteristics. The diagnosis of PR would be established by fulfilling all the essential features plus at least one of the optional features. In brief, the “essential” clinical presentation for PR must include scaly circular eruptions with two lesions at the minimum showing peripheral collarette scale plus at least one of these following “optional” features; (i) truncal and proximal extremities involvement with less than 10% of lesions on the distal limbs, (ii) most lesions distribute along the ribs, and (iii) the presence of a herald patch. Pityriasis rosea would be unlikely if any “exclusional” features present including multiple vesicular lesions, predominant palmoplantar distribution, and clinical or serological tests indicate secondary syphilis. These criteria seem to be

applicable for typical PR but not for other atypical forms since the exclusion criteria would ultimately rule out certain types of atypical PR such as acral and vesicular variants. It is thus crucial to revise the above diagnostic criteria to minimize the potential of the underdiagnosis of some atypical PR subsets.

In summary, acral PR accompanied by the typical PR eruptions distributed in a disseminated pattern was reported. The existed criteria may facilitate the diagnosis of classic PR but fail to diagnose acral PR. The strong clinical clue for acral PR is the presence of collarette scales within the periphery of typical PR lesions which could be observed either on the palmoplantar surfaces or other locations. Herald patch is also pathognomonic that can be generally observed in up to 80 % of PR cases while

palmoplantar herald patches were reported in a few patients.^{4,7} As the appearance of palmoplantar lesions may indicate secondary syphilis, serological tests should always be investigated in virtually all suspected cases.

References

1. Chuh AA. Diagnostic criteria for pityriasis rosea: a prospective case control study for assessment of validity. *JEADV* 2003;17:101-3.
2. Deng Y, Li H, Chen X. Palmoplantar pityriasis rosea: two case reports. *JEADV* 2007;21:406-7.
3. Bukhari I. Pityriasis rosea with palmoplantar plaque lesions. *Dermatol Online J* 2005;11.
4. Polat M, Yildirim Y, Makara A. Palmar herald patch in pityriasis rosea. *Australas J Dermatol* 2012;53:e64-5.
5. Robati RM, Toossi P. Plantar herald patch in pityriasis rosea. *Clin Exper Dermatol* 2009;34:269-70.
6. Gonzalez LM, Allen R, Janniger CK, Schwartz RA. Pityriasis rosea: an important papulosquamous disorder. *Int J Dermatol* 2005;44:757-64.
7. Ozyurek GD, Alan S, Cenesizoglu E. Evaluation of clinico-epidemiological and histopathological features of pityriasis rosea. *Postepy Dermatologii i Alergologii* 2014;31:216-21.



Figure 3. The rash distributed along cleavage lines of the back or a “Christmas tree” distribution.

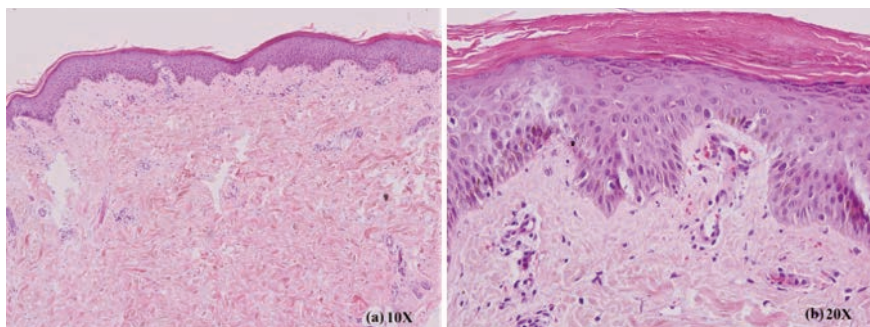


Figure 4. a) The section displayed mild acanthotic epidermis with hyperkeratosis and focal parakeratosis. There was superficial perivascular infiltration on the upper dermis. b) Lymphocytic infiltration and extravasation of red blood cells were evident. (Hematoxylin and eosin stain).