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Vesicular pityriasis rosea

A 37-YEAR-OLD MAN presented to the dermatology clinic with a 9-day history of disseminated pruritic rash on his trunk and extremities. The patient was previously healthy, denied the use of any medication, and affirmed that no family member had similar eruptive lesions.

Physical examination revealed erythematous papulosquamous eruptions primarily localized on the trunk and extremities (**Figure 1**). Individual lesions exhibited an oval shape and marginal scale attachment, with their long axes parallel to the lines of skin cleavage. Notably, a sizable oval scaly patch on the left chest was first noticed by the patient several days before the appearance of the disseminated lesions. Vesicles were observed on the anterior forearm surface (**Figure 1**) and the thighs. Lymphadenopathy or lesions on the mucous membranes were not observed.

Laboratory tests, including antinuclear antibody and antistreptolysin O titers, fluorescent treponemal antibody absorption test, and fungal microscopy, all yielded normal results. Skin biopsy of a vesicular lesion on the abdomen revealed acute dermatitis with epidermal hyperkeratosis accompanied by parakeratosis, intracorneal blister formation, spongiosis, and focal basal cell vacuolar degeneration. Direct immunofluorescence of the vesicular lesion was negative for immunoglobulin A, G, and M; complement component 3; and fibrinogen.

Vesicular pityriasis rosea was diagnosed based mainly on the clinical features of the rash, including erythematous papulosquamous lesions aligning with dermoid lines and a herald patch on the trunk, both typical of pityriasis rosea, and the presence of vesicular lesions. The results of the histopathologic examination were also consistent with pityriasis rosea, and laboratory testing helped exclude other possible diagnoses.

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Figure 1. Left, typical papulosquamous lesions of pityriasis rosea on the trunk. Right, vesicular lesions on the anterior forearm.

■ VESICULAR PITYRIASIS ROSEA

Our patient exhibited the characteristic features of typical pityriasis rosea, including erythematous, oval-shaped, marginally scaly plaques with their long axes parallel to the lines of skin cleavage and a herald patch on the left chest.¹ The presence of vesicles surrounding the lesions pointed to a diagnosis of vesicular pityriasis rosea, an atypical variant of pityriasis rosea.

Pityriasis rosea is a self-limited acute or subacute inflammatory dermatosis characterized by erythematous papulosquamous eruptions predominantly found on the trunk and proximal extremities.² The lesions typically resolve over a span of 2 to 10 weeks without treatment. Vesicular pityriasis rosea accounts for only

0.5% of reported cases.² This subtype is more frequently observed among children and young adults.

Glucocorticoids can be used for treatment, while dapsone and oral erythromycin have also been shown to be effective.^{2,3}

Differential diagnosis

The differential diagnosis includes tinea corporis, secondary syphilis, guttate psoriasis, and autoimmune bullous diseases.¹

Tinea corporis, a skin infection primarily caused by dermatophyte fungi, typically presents as a red circular rash with a slightly raised border and a clearer center, resembling a ring.⁴ There may be scaling or vesicles at the edges, and the lesions can be itchy or mildly irritated. The rash is usually localized in the infected area but can spread over time if not treated. A positive fungal microscopy examination is fundamental for diagnosis. In our patient, fungal microscopy examination was negative, ruling out tinea corporis.

Secondary syphilis diagnosis requires an etiologic examination. However, syphilis can be difficult to diagnose due to its diverse manifestations. The presence of nonpruritic red or reddish-brown papulosquamous eruptions on any part of the body, including the palms and soles, along with the presence of plasma cells on histopathologic examination, is indicative of secondary syphilis.⁵ Negative results on fluorescent treponemal antibody absorption testing ruled out secondary syphilis in our patient.

Guttate psoriasis is a relatively rare variant of psoriasis characterized by an abrupt onset of small, diffuse, salmon-colored papulosquamous papules with silver scales.⁵ Tiny points of blood are visible when the scales are rubbed or picked off. Guttate psoriasis exhibits a predilection for children and youth and is frequently associated with streptococcal infections. It has characteristic histologic features of psoriasis, including mild epidermal hyperplasia, focal spongiosis, disappearance of the granular layer, and migration of neutrophils into the epidermis to produce epidermal or subcorneal collections.^{5,6} Histopathologic examination in our patient revealed no evidence of guttate psoriasis or an acantholytic process.

Autoimmune bullous diseases such as pemphigus, bullous pemphigoid, and dermatitis herpetiformis are a group of rare skin disorders characterized by widespread erythema and blisters. They occur due to autoantibodies disrupting the junction between the dermis and epidermis.⁷ Diagnosis of these disorders involves comprehensive evaluations, including clinical features, histologic examination, and immunohistologic assessment. In our patient, autoimmune diseases were ruled out based on a normal result on antinuclear antibody testing, the absence of associated symptoms, and negative direct immunofluorescence studies of the biopsy sample.

DISCLOSURES

The authors report no relevant financial relationships which, in the context of their contributions, could be perceived as a potential conflict of interest.

REFERENCES

1. Urbina F, Das A, Sudy E. Clinical variants of pityriasis rosea. *World J Clin Cases* 2017; 5(6):203–211. doi:10.12998/wjcc.v5.i6.203
2. Miranda SB, Lupi O, Lucas E. Vesicular pityriasis rosea: response to erythromycin treatment. *J Eur Acad Dermatol Venereol* 2004; 18(5):622–625. doi:10.1111/j.1468-3083.2004.01021.x
3. Anderson CR. Dapsone treatment in a case of vesicular pityriasis rosea. *Lancet* 1971; 2(7722):493. doi:10.1016/s0140-6736(71)92662-6
4. Terragni L, Marelli MA, Oriani A, Cecca E. Tinea corporis bullosa. *Mycoses* 1993; 36(3–4):135–137. doi:10.1111/j.1439-0507.1993.tb00701.x

5. High WA, Hoang MP, Bergstresser PR. Psoriasis guttata with palmo-plantar involvement clinically mimicking secondary syphilis. *Cutis* 2005; 76(6):358–360. pmid:16438424
6. Brody I. Dermal and epidermal involvement in the evolution of acute eruptive guttate psoriasis vulgaris. *J Invest Dermatol* 1984; 82(5):465–470. doi:10.1111/1523-1747.ep12260965
7. Kutlubay Z, Sevim Keçici A, Çelik U, Mat MC. A survey of bullous diseases in a Turkish university hospital: clinicoepidemiological characteristics and follow-up. *Turk J Med Sci* 2021; 51(1):124–133. doi:10.3906/sag-2006-231

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