Rupioid Id Reaction With Peripheral Eosinophilia

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PRACTICE **POINTS**

- Consider a rupioid id reaction when a patient presents with lesions featuring scale that is dirty appearing and resembles an oyster shell.
- Recognize that exuberant id reactions can manifest with peripheral eosinophilia; its presence should not lead you to automatically rule out an id reaction in favor of other eosinophilic eruptions.
- Focus on uncovering the source of an id reaction (eg, contactants, infections, bites); resolving the primary insult is essential for rapid clearance of even dramatic rupioid eruptions.

To the Editor:

In dermatology, *rupioid* describes dirty-appearing scale. The term is derived from the Greek word *rhupos*, which translates to "dirty" or "filthy." This type of scale also is called *ostraceous*, owing to its resemblance to an oyster shell. Histopathologically, rupioid or ostraceous scale corresponds to epidermal hyperplasia and hyperkeratosis. Therefore, the presence of rupioid scale is believed to reflect an exuberant inflammatory response. Several dermatologic conditions have been associated with rupioid scale, including psoriasis, secondary syphilis, reactive arthritis, histoplasmosis, and Norwegian scabies.[1-4] Peripheral eosinophilia has been reported in eczematous dermatoses such as atopic dermatitis and contact dermatitis,[5,6] but our review of the literature did not find it described in the context of id reactions. We report the case of a patient who developed a rupioid id reaction with peripheral eosinophilia.

An otherwise healthy 40-year-old woman presented with a generalized pruritic eruption of 1 month's duration. Prior to onset, she was bitten by a bug on the left arm and covered the site with a bandage. She subsequently noticed an erythematous papulopustular rash corresponding to the shape of the bandage adhesive. Shortly thereafter, a generalized eruption developed, prompting the patient to present for evaluation 1 month later. A review of systems was negative for fevers, chills, headaches, vision changes, and joint symptoms. She denied having a history of atopy.

Physical examination revealed numerous pink papules and plaques with rupioid scale scattered over the trunk and extremities (Figure). The palms, soles, and mucous membranes were spared. Laboratory studies revealed peripheral eosinophilia (9% eosinophils [reference range, 1%-6%] and an absolute eosinophil count of 600/μL [reference range, 0-400/μL]). A 3-mm punch biopsy of a representative lesion revealed a superficial perivascular infiltrate of lymphocytes, histiocytes, and eosinophils along with epidermal hyperplasia, spongiosis, and mounds of parakeratosis. Clinicopathologic correlation led to the diagnosis of a rupioid id reaction secondary to an arthropod assault and/or a reaction to the bandage adhesive.

Treatment with topical corticosteroids was avoided at the patient's request. Instead, a ceramide-based emollient

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FIGURE. A and B, Rupioid id reaction secondary to an arthropod assault and/or a reaction to a bandage adhesive. Papules and plaques with rupioid scale were present on the back and left arm.

and oral antihistamines (fexofenadine 180 mg in the morning and cetirizine 10 mg in the evening) were recommended and resulted in resolution of the eruption with postinflammatory hyperpigmentation at 2-week follow-up. The patient was advised to avoid further exposure to bandage adhesives.

An id reaction, or autoeczematization, is a cutaneous immunologic response to antigen(s) released from an initial, often distant site of inflammation.[7,8] Clinically, it typically manifests as a pruritic, symmetrically distributed papulovesicular eruption. Although the pathogenesis of id reactions is uncertain, overactivation of T lymphocytes responding to the initial inflammatory insult has been implicated.[7] A variety of noninfectious (eg, stasis dermatitis, contact dermatitis) and infectious dermatoses (eg, fungal, bacterial, viral, parasitic) may trigger id reactions.[7,9-13] In this case, we believe an arthropod assault and/or reaction to the bandage adhesive was the primary insult, and the id reaction that ensued was so exuberant that it resulted not only in rupioid scale but also in peripheral eosinophilia—similar to how more severe forms of atopic dermatitis have been associated with peripheral eosinophilia.[5] As such presentations of id reactions not have been widely described in the literature, this report expands our understanding of this condition to include rupioid scale and peripheral eosinophilia.

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