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Letter to the Editor

Hemangioma-Like Lesions with an Anemic Halo: Eruptive Pseudoangiomatosis

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To the Editor,

A 25-year-old woman presented with a six-week history of skin lesions. Initially, numerous asymptomatic vascular lesions appeared on her upper extremities. Then, lower extremities were involved as well. Lesions had a fluctuating course with newly appearing and resolving lesions. Her medical and family history was unremarkable except for an acute gastroenteritis that occurred 2 weeks before onset of the symptoms. Dermatological examination revealed multiple, symmetrically distributed 2-4 mm blanchable erythematous, hemangioma-like papules with a pale halo located on the extremities (Fig. 1). There was no mucosal, hair or nail involvement. Lesions blanched completely at diascopy and refilled from center on release of pressure. Polarized dermoscopy showed multiple, red, pin-point dots within erythematous structureless areas. Purpuric globules and dots were absent ruling out erythrocyte extravasation and vasculitis.

Routine laboratory investigations were within normal limits. ANA and ANCA were negative. Viral serological tests for HIV, HBV, HCV, Epstein-Barr virus (EBV) and cytomegalovirus (CMV) were all negative. A 4 mm punch biopsy was obtained for histopathological examination and the hematoxylin and eosin staining revealed dilated blood vessel with plump endothelial cells surrounded by mild perivascular lymphocytic infiltrate in the mid and deep dermis (Fig. 2).

Considering the clinical characteristics of the lesions (acute onset, asymptomatic nature, hemangioma-like lesions but without lacunas, and spontaneous resolution), history of a possibly triggering viral infection (gastroenteritis), laboratory and histopathological features, the diagnosis of "eruptive pseudoangiomatosis (EP)" was made. A topical corticosteroid cream containing methylprednisolone aceponate was prescribed and all the lesions resolved within 10 days without any residual scarring or relapse.

EP is a rare exanthem characterized by blanchable, hemangioma-like lesions with perilesional halo that resolve spontaneously. It was first described in 1969 by Cherry et al. in four children after echovirus infection and it was first

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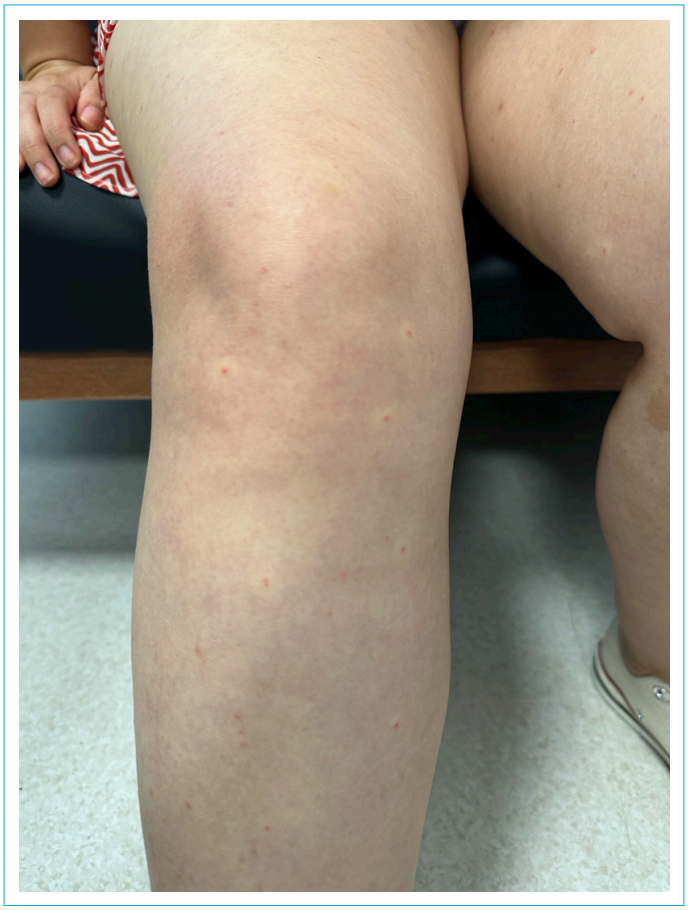

Figure 1. Multiple, symmetrically distributed 2-4 mm blanchable erythematous, hemangioma like papules with a pale halo.

named in 1993 by Prose et al.[1,2] Although it was initially described in children and considered a childhood rash for a long time, Navarro et al.[3] reported the first adult case with evidence of Epstein-Barr virus (EBV) infection in 2000. Since then adult cases have also been reported in the literature.

The exact pathogenesis of this entity is still not fully elucidated. Although viral etiologies are predominantly considered in pathogenesis, paraviral etiology has also been suggested. Typical dermatological findings of EP occurring after a prodromal period with evidence of viral infection such as echovirus, CMV, EBV, parvovirus B19, adenovirus and SARS-CoV-2 have been reported in the literature.[1-6] However, it has been shown that it may be associated with paraviral etiologies such as insect bites, vaccination (COVID-19 immunization) and immunosuppression.[7-11] The characteristics of exposed skin lesions after insect bites, especially mosquito bites, support that insect bites may induce EP.[7,8] In adult, and elderly patients, a stronger relationship has been demonstrated between EP and immunosuppression. González Saldana et al.[11] reported two cases of EP in an HIV-positive patient in the AIDS stage and in another patient with non-Hodgkin lymphoma.

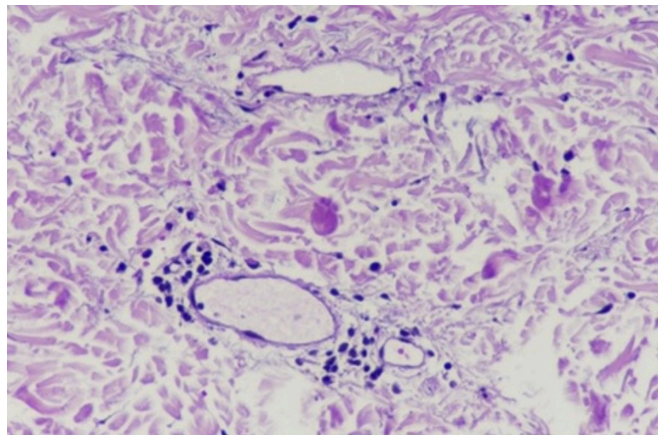

Figure 2. Dilated blood vessel with plump endothelial cells surrounded by mild perivascular lymphocytic infiltrate in the mid and deep dermis.

Despite diverse underlying etiologies, the clinical features are similar in the affected patients. EP is characterized by 2-4 mm, blanchable, erythematous, hemangioma-like papules with a pale halo that are usually distributed symmetrically in visible areas such as extremities and face.[12] The lesions are usually asymptomatic but 22% of patients can also describe pruritus.[13] Clinical features may vary between children and adults. The onset of lesions occurs following a prodromal period in pediatric patients, whereas prodromal symptoms are usually absent in the adult patients. In addition, the eruption lasted longer in adults than in children.[11] The rash resolves spontaneously without residual scarring in 2-18 days in children and more than one month in adults.[11,14] Histopathological examination shows dilated blood vessels with plump endothelial cells and mild-to-moderate perivascular lymphohistiocytic cell infiltration. Epidermis is usually normal and it's noteworthy that there is no vascular proliferation or leukocytoclasia, fibrinoid necrosis that support vasculitis.[12]

Viral exanthem, insect bite, ictus reaction, papular urticaria, hemangioma, leukocytoclastic vasculitis and punctate telangiectasia were considered in the differential diagnosis in our patient. Differential diagnosis of EP from "hemangioma-like lesions" includes leukocytoclastic vasculitis and punctate telangiectasia. Dermatological manifestations of leukocytoclastic vasculitis were petechiae and palpable purpura that were not blanchable. Also, histopathology reveals leukocytoclasia, fibrinoid necrosis in the vessel wall and/or extravasated erythrocytes.[15] Hemangioma and punctate telangiectasia are benign vascular lesions that are blanchable on pressure, but they do not resolve.[16] Based on clinical features and dermatological examination, leukocytoclastic vasculitis, hemangioma and punctate telan-

giectasia were ruled out. Differential diagnosis of EP from "erythematous lesions" includes insect bites, ictus reaction and papular urticaria. Insect bite is a pruritic erythematous papule after being bitten by various agents. Whereas ictus reaction is a rare reaction caused by insect bites. It is pruritic, erythematous papular reaction with a perilesional pale halo. Papular urticaria is an itchy rash characterized by recurrent lesions that disappear within 24 hours resulting from hypersensitivity reaction to bites of various types of insects and arthropods.[17] Histopathological examination shows typically a mixed infiltrate of lymphocytes, histiocytes and especially eosinophils. The category of erythematous lesions can also be ruled out by examining the clinical and histopathological features.

In conclusion, in dermatology practice, clinicians do not frequently encounter spontaneously resolving vascular lesions. We present this rare case of EP in order to increase awareness of clinicians about this rare entity and help them to make an accurate differential diagnosis for good clinical practice.

Disclosures

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