Idiopathic Eruptive Macular Pigmentation With Papillomatosis

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PRACTICE **POINTS**

- Idiopathic eruptive macular pigmentation with papillomatosis is a rare disorder that most frequently affects children and young adults.
- Idiopathic eruptive macular pigmentation with papillomatosis is characterized by asymptomatic, brownish, hyperpigmented macules involving the neck, trunk, arms, and legs.
- The disorder is important to consider in the differential diagnosis of asymptomatic pigmentary disorders to avoid unnecessary treatment because the disease is self-limiting and resolves over weeks to years.

To the Editor:

A 13-year-old white adolescent girl presented with asymptomatic discrete hyperpigmented papules on the chest, back, arms, and upper legs of 7 months' duration. The patient otherwise was in good health; her weight and height were on the 40th percentile on growth curves and she had no history of any medications. Treatments for the skin condition prescribed by outside dermatologists included minocycline 75 mg twice daily for 2 months, lactic acid lotion 12% daily, and ketoconazole 400 mg administered twice 1 week apart.

Physical examination revealed more than 50 scattered hyperpigmented papules on the chest, back, arms, and upper legs ranging in size from 2 to 3.5 cm (Figure 1). Stroking of lesions failed to elicit Darier sign. A potassium hydroxide preparation and fungal culture were negative for pathogenic fungal organisms. The plasma insulin level was within reference range. A punch biopsy from the abdomen was obtained and sent for histopathologic examination. Histopathology showed mild hyperkeratosis, subtle papillomatosis, and interanastomosing acanthosis comprising squamoid cells with mild basilar hyperpigmentation (Figure 2). Sparse superficial perivascular lymphocytic infiltrate and increased pigmentation was seen in the basal layer. The dermis showed a few scattered dermal melanophages. A periodic acid–Schiff with diastase stain was negative. Giemsa and Leder stains highlighted a normal number and distribution of mast cells. Based on the histologic findings, the patient was diagnosed with idiopathic eruptive macular pigmentation (IEMP).

Idiopathic eruptive macular pigmentation is a rare condition that was described in 1978 by Degos et al.[1] Sanz de Galdeano et al[2] established the following diagnostic criteria: (1) eruption of brownish black, nonconfluent, asymptomatic macules involving the trunk, neck, and proximal arms and legs in children or adolescents;

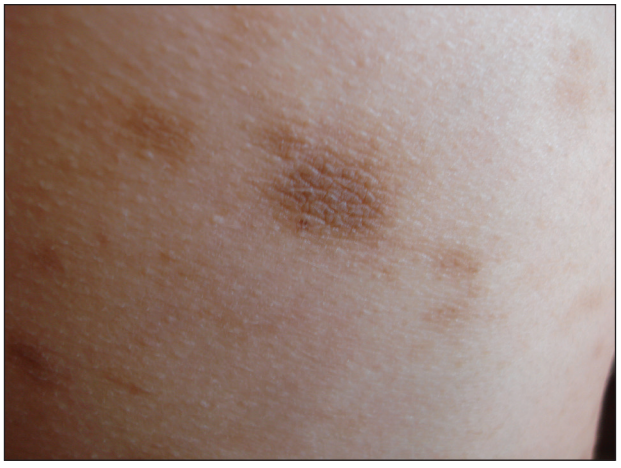

FIGURE 1. Idiopathic eruptive macular pigmentation with papillomatosis characterized by hyperpigmented papules on the chest.

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The authors report no conflict of interest.

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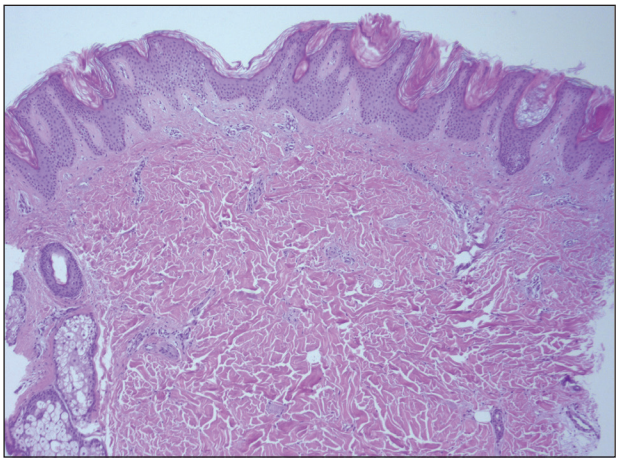

FIGURE 2. Idiopathic eruptive macular pigmentation with papillomatosis histopathology showed mild hyperkeratosis, subtle papillomatosis, and interanastomosing acanthosis comprising squamoid cells with mild basilar hyperpigmentation (H&E, original magnification ×4).

(2) absence of preceding inflammatory lesions; (3) no prior drug exposure; (4) basal cell layer hyperpigmentation of the epidermis and prominent dermal melanophages without visible basal layer damage or lichenoid inflammatory infiltrate; and (5) normal mast cell count.

Idiopathic eruptive macular pigmentation with papillomatosis (IEMPwP) is a variant of IEMP.[3] It is undecided if IEMP and IEMPwP are variants of the same entity or distinct conditions. Until a clear etiology of these entities is established, we prefer to separate them on purely morphologic grounds. Marcoux et al[4] labeled IEMPwP as a variant of acanthosis nigricans. Although morphologically the 2 conditions appear similar, our patient's plasma insulin level essentially ruled out acanthosis nigricans.

Idiopathic eruptive macular pigmentation is a rare condition with the majority of cases reported in the Asian population with some reports in white, Hispanic, and black individuals.[5] Idiopathic eruptive macular pigmentation with papillomatosis was reported by Joshi[3] in 2007 in 9 Indian children with the classic findings of IEMP along with a velvety rash that correlated with papillomatosis. Diagnosis of IEMPwP is important, as the disease generally is self-limited and resolves over the course of a few weeks to a few years.

REFERENCES

1. Degos R, Civatte J, Belaïch S. Idiopathic eruptive macular pigmentation (author's transl)[in French]. *Ann Dermatol Venereol*. 1978;105:177-182.
2. Sanz de Galdeano C, Léauté-Labrèze C, Bioulac-Sage P, et al. Idiopathic eruptive macular pigmentation: report of five patients. *Pediatr Dermatol*. 1996;13:274-277.
3. Joshi R. Idiopathic eruptive macular pigmentation with papillomatosis: report of nine cases. *Indian J Dermatol Venereol Leprol*. 2007;73:402-405.
4. Marcoux DA, Durán-McKinster C, Baselga E. Pigmentary abnormalities. In: Schachner LA, Hansen RC, eds. *Pediatric Dermatology.* Philadelphia, PA: Mosby; 2011:700-746.
5. Torres-Romero LF, Lisle A, Waxman L. Asymptomatic hyperpigmented macules and patches on the trunk. *Am J Dermatopathol*. 2015;37:546, 586.