



Perioral *Acanthosis nigricans*

A 16.5-year-old girl with a history of perioral hyperpigmented skin lesions presented for evaluation. Her lesions were first recognized 4 years earlier, and treated with topical cream. On examination, she was obese (body mass index: 31.18 kg/m², Z-score: 2.95), had symmetrical perioral hyperpigmented brownish hyperkeratotic lesions extending to her chin (Figure, A), and hyperpigmented lesions on her knuckles and neck. Her laboratory examinations revealed homeostasis model assessment-insulin resistance (Homa-IR): 6.17, high triglyceride, and low high-density lipoprotein cholesterol levels. Abdominal ultrasonography showed she had grade 2 hepatosteatosis. She thus fulfilled the metabolic syndrome criteria. The lesions were diagnosed to be *Acanthosis nigricans* associated with obesity and hyperinsulemia.¹ Metformin was started with topical isotretinoin/erythromycin gel along with weight loss recommendations. One month later, she had lost 7 kg, her Homa-IR had decreased to 2.37 and her perioral lesion completely disappeared (Figure, B).

Acanthosis nigricans is the most common dermatologic manifestations of obesity and insulin resistance. They are symmetric, velvety, hyperpigmented plaques that can be seen in almost any location but most commonly on the intertriginous areas of the axilla, groin, and posterior neck, the elbows, knuckles, and sometimes on face. It can be classified into benign (obesity related, hereditary, and endocrine forms) and malignant (associated with tumor) forms.²

Systemic therapies, oral retinoids (isotretinoin, acitretin), can be effective. Metformin and rosiglitazone, along with a low-calorie diet and increased physical activity, are useful approaches.³ ■

Bayram Ozhan, MD
Sebahat Yilmaz Agladioglu, MD
Selcuk Yuksel, MD
Department of Pediatrics

Berna Sanli, MD
Department of Dermatology
Pamukkale University
School of Medicine
Denizli, Turkey

References

1. Zimmet P, Alberti KG, Kaufman F, Tajima N, Silink M, Arslanian S, et al., for the IDF Consensus Group. The metabolic syndrome in children and adolescents—an IDF consensus report. *Pediatr Diabetes* 2007;8:299-306.
2. Napolitano M, Megna M, Monfrecola G. Insulin resistance and skin diseases. *Sci World J* 2015;2015:479354. <http://dx.doi.org/10.1155/2015/479354>.
3. Hermanns-Lê T, Scheen A, Piérard GE. *Acanthosis nigricans* associated with insulin resistance: pathophysiology and management. *Am J Clin Dermatol* 2004;5:199-203.



Figure. Perioral hyperpigmented brownish hyperkeratotic lesion, before and after therapy.