

## “My neck looks dirty!”

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A 17-year-old male presents with bilateral axillae and neck thickening and darkening of the skin (Figure 1). He is overweight, but otherwise healthy and on no medication.

### What’s your diagnosis?

Acanthosis nigricans (AN) is a relatively common asymptomatic skin finding characterized by velvety light to dark brown hyperpigmentation that most commonly affects the axillae, groin and neck. Skin tags are frequently found as well. Approximately 7% of children have this finding, and the majority of obese adults have AN. It is often associated with being overweight and having insulin resistance. It is more common in darker races, occurs at any age and both genders are similarly affected. AN can also be a familial trait, associated with diabetes or other endocrine disorders, or associated with the use of medications, such as estrogens, systemic corticosteroids and nicotinic acid.

Rarely, AN is associated with an underlying tumour. In these cases, AN occurs in irregular places, such as the lips, oral mucosa, hands (“tripe palms”) and genitalia and is unusually rapid and severe. Gastric carcinoma is the most common underlying malignancy and the prognosis is poor in these patients.

Histopathology is seldom necessary, but shows hyperkeratosis, papillomatosis and slight irregular acanthosis with minimal or no hyperpigmentation. For patients with adult onset of AN, perform a basic workup for underlying malignancy.



Figure 1. Acanthosis nigricans.

Patients should be screened for diabetes with a glycosylated hemoglobin level or glucose tolerance test and for insulin resistance with a plasma insulin level (high in those with insulin resistance).

Weight reduction can improve the condition, although other therapies can be tried with modest success to reduce irritation or improve cosmesis, including:

- topical tretinoin,
- 20% urea,
- alpha hydroxyacids and
- salicylic acid prescriptions.

In malignancy-associated AN, resection of the tumour results in gradual improvement of the skin.

CME

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