



# “Why is my neck discoloured?”

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A 50-year-old Sri Lankan female presents with increasing asymptomatic hyperpigmentation affecting her neck. She reports scrubbing the area with a loofah which seemed to help temporarily. She is overweight, but is otherwise in good health.

### 1. What is the most likely diagnosis?

- a) Hemochromatosis
- b) Allergic contact dermatitis
- c) Acanthosis nigricans
- d) Becker nevus
- e) Mycosis fungoides

### 2. Which etiologies have been associated with the development of this condition?

- a) Drug-induced
- b) Gastric adenocarcinoma
- c) Obesity
- d) Insulin resistance
- e) All of the above

### 3. What is a reasonable treatment option?

- a) Rule out underlying malignancy
- b) Screen for diabetes
- c) Screen for insulin resistance
- d) Topical keratolytics
- e) All of the above

Acanthosis nigricans (AN) is a result of epidermal keratinocyte and dermal fibroblast proliferation, typically as a result of insulin or insulin-like

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Figure 1. Discoloured neck.

growth factor stimulation. Approximately 7% of children have changes consistent with AN and more than half of obese adults have features. Individuals with darker skin are much more prone to this condition. These include African Americans/African Canadians, Hispanics and Native Americans.

Patients typically present with asymptomatic thickening and hyperpigmentation of the neck (this is the most common site in children), axillae, groin and inframammary regions.

Mild pruritus may occasionally be present. Skin tags are more commonly found in affected areas. In malignancy-associated AN, skin changes can precede, occur concurrently, or occur after malignancy diagnosis in equal proportions. The eight types of AN that have been described are obesity-associated (most common), syndromic (Type A and Type B), acral, familial, unilateral, drug-induced, malignant and mixed-type.

Management is based on correcting any underlying disease, such as hyperinsulinemia. Weight reduction alone can result in moderate improvement. Topical tretinoin, topical hydroquinone and topical steroids have shown some benefit, while oral retinoids and metformin have shown some benefit as systemic agents. 

Answers: 1-c; 2-e; 3-e