

Acanthosis Nigricans

Acanthosis nigricans is a skin disorder described by thick, velvety lesions that occur in flexural areas like the neck, groin and armpits. This disorder is associated with various endocrine disorders, along with insulin resistance and diabetes mellitus. It also has a link to malignancies, such as those of lung and GI etiology. Biopsy will show melanotic cells with hyperkeratosis, while treatment involves addressing the underlying disorder associated with these skin lesions.



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Associations

Endocrine Disorders

Endocrine glands

Acanthosis nigricans is a finding that is associated with various endocrine conditions, such as Cushing' syndrome, polycystic ovarian syndrome, Addison's disease, hypothyroidism and diabetes mellitus.

Diabetes Mellitus

Dyed-bead-pancreas

There is a strong link between diabetes mellitus type II and insulin resistance causing acanthosis nigricans in patients. Often, these lesions can occur in patients who do not know they are diabetic. Thus, screening tests should be done on the patient if these skin findings are present.

Obesity

Obese

Not all obese patients will have acanthosis nigricans, but this is a common finding amongst the obese population. Obese patients can display this skin disorder due to the high association of obesity and type II diabetes mellitus. Insulin resistance can lead to acanthosis nigricans, leading to this being a finding in obese patients.

Malignancy

Malignant-man

Patients with lung or gastrointestinal malignancies may display acanthosis nigricans. Patients with these skin changes should be given a thorough workup.

Presentation

Velvety Plaques

Velvet-robe with Plaques

The plaques seen in acanthosis nigricans are described as being thick with a "velvety" texture.

Dark, Thickened Flexural Areas

Darkened and Thick Flexural Areas

Patients present with dark, thickened flexural areas, typically in the armpits, groin and back of the neck. These skin changes usually appear slowly, and the skin may also have an odor or itch.

Diagnosis

Hyperkeratosis with Melanocytes

Hiker-carrot and Melon

Diagnosis of this disorder is made when hyperkeratosis with melanocytes is seen on skin biopsy. This step is sometimes unnecessary, and diagnosis can usually be made on clinical exam.

Treatment

Treat Underlying Disorder

[Treating Disorders Under the Table](#)

Treatment for acanthosis nigricans involves addressing other underlying disorders. When acanthosis nigricans is seen, patients should be screened for underlying disorders, including diabetes and malignancy.