

Alarming Sign- Acanthosis Nigricans

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Introduction

Around the world obesity have become a major challenge for chronic disease prevention and health, it is spreading like an epidemic. It is a kind of epidemic which gets fueled by the economic growth of the country, industrialization, globalization, westernization and sedentary life style adoption by the people because of enough development in machines which makes work of a man easier.¹ Obesity not only lead to physical appearance changes but it is also a contributing factor for morbidity and mortality, person who is obese gets many diseases and glucose intolerance is also one of them, obese person can develop diabetes because of it or even many more diseases, because of glucose intolerance person can also develop 'Acanthosis Nigricans'.

Acanthosis Nigricans is a dermatological condition most commonly seen in obese persons which can lead to darkening and thickening of skin along with irregular folds which are limited to specific areas of body. This condition is found to be associated with hyperinsulinemia or insulin resistance and obesity. Insulin resistance is a condition in which the body cells lacks the ability to use insulin, because of which pancreas have to work harder in order to produce more insulin and which leads to hyperinsulinemia in order to maintain blood sugar levels within normal limits. Studies suggest that 'Acanthosis Nigricans' is found to be a reliable dermatological marker for insulin resistance in people.² Various studies supported that most of the cases of acanthosis nigricans are associated with obesity and it can be used as a useful clinical marker to assess people with insulin resistance who are susceptible to get Type-2 diabetes mellitus in future. It should be detected on time so that any major morbidity can be prevented.³

It most commonly affects your armpits, groin and neck and make that area thick and velvety, it is an alarming sign as it can be a sign of coming diabetes mellitus type-2 or may a internal organ tumor of stomach and liver.⁴

Definition

Acanthosis nigricans is a clinical sign of an underlying disease which leads to darkening and thickening of areas of skin folds like neck, armpits and groin.

Causes-

1. Being very overweight
2. Type-2 diabetes mellitus
3. Hyperinsulinemia
4. Internal tumor of stomach or liver
5. Polycystic ovarian disease
6. Underactive thyroid function
7. In rare cases it can also be inherited from your parents, can be a genetic cause
8. Can also be seen in people with cushing syndrome
9. Use of certain medications like- Nicotinic acid, oral contraceptive pills, growth hormone therapy, insulin etc

10. This is also associated with some autoimmune disorders like- Hashimoto's thyroiditis, Sjogren's syndrome and SLE.

Symptoms-

1. Hyperpigmentation- area of skin folds of neck, armpits and groin becomes dark in color.
2. Hyperkeratosis- in this the skin becomes thick and velvety
3. Pruritis- itching in the affected area of skin
4. Roughness of skin
5. Malodourous smell

Treatment-

- Topical retinoids
- Topical vitamin D analogs
- Chemical peels
- Oral retinoids (isotretinoin and acitretin)
- Metformin and rosiglitazone
- combination of metformin with thiazolidiones
- Fish oil containing omega-3 fatty acids

Conclusion-

Although this sign comes with body image changes and people often feel embarrassed , but rather than only considering it a matter of cosmetic we should also have knowledge that it can be a alarming sign for some major underlying illness which we need to take care in early stages as it can lead to chronic illness as well and can be a contributing factor to major morbidity and mortality.

References-

1. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4859313/>
2. <https://pubmed.ncbi.nlm.nih.gov/14651545/>
3. <https://pubmed.ncbi.nlm.nih.gov/31560795/>
4. <https://www.mayoclinic.org/diseases-conditions/acanthosis-nigricans/symptoms-causes/syc-20368983>
5. <https://dermnetnz.org/topics/acanthosis-nigricans/>
6. <https://www.nhs.uk/conditions/acanthosis-nigricans/>
7. https://www.google.com/search?q=acanthosis+nigricans+causes&rlz=1C1CHBD_enIN956IN956&oq=acanthosis+nigricans+&aqs=chrome.69i59j0i131i433i512j69i57j0i512j0i131i433i512j69i60i2j69i61.9743j0j7&sourceid=chrome&ie=UTF-8
8. <https://www.ncbi.nlm.nih.gov/books/NBK431057/>
9. <https://www.slideshare.net/iyerbk/acanthosis-nigricans>
10. <https://www.medicalnewstoday.com/articles/324062#symptoms>
11. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6086114/>