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# Prevalence of Acanthosis Nigricans and Related Factors in Iranian Obese Children

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## Background

Obesity Is One Of Health Problems Worldwide. Acanthosis Nigricans Has Been Considered As A Symptom Of Hyperinsulinemia In Children.

We Designed This Study To Evaluate Clinical And Laboratory Findings In Iranian Obese Children With And Without Acanthosis Nigricans.

## Material & Method

Seventy One Obese Children Enrolled. Fasting Blood Sugar (FBS), Total Cholesterol, Triglycerides, Alanine Aminotransferase (ALT), Aspartate Aminotransferase (AST), Alkaline phosphatase (ALP), High-density Lipoprotein Cholesterol (HDL-C) And Low-density Lipoprotein Cholesterol (LDL-C), Insulin, TSH, And Free Thyroxine (Ft4), Calcium, Phosphorus And 25- Hydroxy vitamin D (25[OH]D) Were Measured With Routine Techniques.

Collected Data Compared Between Cases With And Without Acanthosis Nigricans.

## Result

Twenty Five Were Female (35.2%) And 46 (64.7%). In 20 Cases (28.2%) HOMA-IR Was Less Than 2.5 And In 51(71.8%) HOMA-IR Was More Than 2.5. Forty Eight Had Acanthosis Nigricans (67.6%). Mean BMI (24 In Without Acanthosis Vs 27,  $P=0.002$ ), Insulin (14 Vs 27,  $P<0.001$ ), Homa-ir (3.2 Vs 6.2,  $P<0.001$ ), TG (116 Vs 156), And AST(24 Vs 30,  $P=0.01$ ) Levels Were Significantly Higher In Cases With Acanthosis Nigricans.

Conclusion: It Is Better To Screen Obese Children With Acanthosis Nigricans For Predisposing Factors Of Diabetes And Pay Attention To Risk Factors Of This Disease.

## Keywords

Obesity, children, Acanthosis nigricans, BMI, insulin.

