Prevalence of Acanthosis Nigricans and Related Factors in Iranian Obese Children

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**Background**

Obesity is one of the 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.