

# Serum visfatin levels in Egyptian obese adolescents with metabolic syndrome

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## Abstract

Adipokines may play a role in the pathogenesis of the metabolic syndrome (MS) in children. Visfatin is an adipokine mainly produced by visceral fat, has not been fully elucidated. The relationships between visfatin and metabolic syndrome are inconsistent. The purpose of this study was to assess the relationship between serum visfatin levels and metabolic syndrome and metabolic components including serum lipids, blood pressure (BP) and anthropometric indices in Egyptian obese adolescents. The present study included 100 obese adolescents with MS, aged 17-18 years and 100 non-obese matched for sex and age healthy controls. All patients and controls were subjected to full medical history, clinical examination, anthropometric measurements, insulin resistance determined by homeostasis model assessment of insulin resistance (HOMA-IR), serum lipids and BP investigations. Serum visfatin was assessed by enzyme linked immunosorbent assay (ELISA). Pearson's correlation analysis was used to assess association between the studied parameters. The efficacy of visfatin in distinguishing MS versus controls was assessed by using logistic regression and receiver operating characteristic (ROC) analyses. Significantly higher visfatin level was observed in obese cases than controls. Significant positive correlations of visfatin concentrations with obesity indices, serum lipids, SBP and DBP levels were observed. Logistic regression showed that odds ratio (OR) for MS as predicted by serum visfatin was 1.16 (95% CI: 1.14–1.92, P=0.01) and the area under curve (AUC) was 0.78. Serum visfatin might be used as predictor for MS in obese adolescents.

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## Biography

Walaa Yousef is a pediatrician, affiliated from National Research Centre, Cairo, Egypt. His research interest mainly

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