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**The relationship between serum levels of IGF-1 and components of the metabolic syndrome in Saudi patients**

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**Background:** Metabolic syndrome is a clustering of abnormalities including altered glucose tolerance, visceral adiposity, hypertension, and dyslipidemia. Increasing evidence has suggested that IGF-1 may have a role in both glucose homeostasis and cardiovascular disease.

**Objective:** We studied the association between serum IGF-1 concentrations and different components of the metabolic syndrome in Saudi patients.

**Research Design & Method:** A total of 64 Saudi patients with metabolic syndrome (41 females and 23 males) were recruited and anthropometric, blood pressure, IGF-1 levels, and biochemical characteristics were collected.

**Results:** IGF-1 concentrations showed negative correlation with waist circumference in females ( $r=-0.30206$ ), Triacylglycerol in both males and females ( $r=-0.41779$  and  $-0.30436$  respectively), and fasting blood sugar in males ( $r=-0.69667$ ). On the other hand IGF-1 concentrations were positively correlated with HDL cholesterol levels in males ( $r=0.504247$ ). The results of this study also showed that both systolic and diastolic blood pressure in Saudi females were significantly lower than males.

**Conclusion:** In Saudi patients with metabolic syndrome, low levels of IGF-1 were associated with increased fasting blood sugar, triacylglycerol, and blood pressure, as well as reduced HDL cholesterol. These findings are consistent with an increased cardiovascular risk in such subjects, so more attention should be focused on persons with low IGF-1 levels.

**Biography**

Amal Baalash is a Medical Biochemistry Associate Professor at the Faculty of Medicine, King Fahad Medical City (KFMC), King Saud Bin Abdulaziz University for Health Sciences. She holds an MBBCh (1991) from Faculty of Medicine, Tanta University, Egypt, and a diploma in internal medicine (1995), from faculty of Medicine, Ain Shams University. Also she holds an MD, PhD degree in Medical Biochemistry (2001) from Faculty of Medicine, Tanta University; she is a consultant in laboratory medicine (Biochemistry) since 2007. She has published more than 22 papers in reputed journals and has been serving as reviewer for three journals.

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