Is Endothelial Dysfunction the Main Issuse in Prediabetic as Predictor for Cardiovascular Diseases

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BACKGROUND

The frequency of prediabetes is increasing as the prevalence of obesity rises worldwide. Hyperglycemia, insulin resistance, inflammation and metabolic derangements associated with concomitant obesity cause endothelial dysfunction in prediabetics, leading to increased risk of cardiovascular and renal disease.

OBJECTIVE

To get a general perspective on the complex relationship between cardiovascular diseases onset, and pre-doiabetes

METHODOLOGY

100 obese patients compared to 45 normal controls the study was conducted between June 2018 and April 2018. All subjects were submitted to history taking, clinical examination including wasit circumference, BMI, Hb A1c, Fasting blood glucose, lipid profile, carotid artery duplex, and Brachial artery flow media dilation (FMD)

RESULTS

Mean age of our patients was 30±0.3 years, cholesterol was 240±22.1mg/dl, triglycerides was 105±12.2 mg/dl, LDL was140.7±32.1 mg/dl, HDL was 38.45±9.5 mg/dl, and A1C mean 5.95±0.2

There was statistically significant difference in Carotid intimal media thickness between prediabetic and controls (P <0.01). However, there was no statistical significance difference between patient and control regarding FMD (p ;0.26)

CONCLUSION

screening for prediabetes is of utmost importance for prevention of cardiovascular morbidity as it is an incipient for premature atherosclerosis, endothelial dysfunction follow changes in CIMT, which highlights that screening of CVS in prediabetics should be done by CIMT and not by FMD

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