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Protective effect of *Garcinia indica* fruit rind (Kokum) against fructose and high fat diet induced abnormalities associated with the metabolic syndrome in rats

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The present study evaluates the protective effects of *Garcinia indica* fruit rind extract (GIE) in abnormalities associated with the metabolic syndrome (MetS) in rats. Rats administered with high fat diet (HFD) and fructose (20% w/v) in drinking water for 45 days to induce abnormalities associated with the MetS. Rats received GIE (400 and 800 mg/kg, po), the standard drug gemfibrozil (60 mg/kg, po), aerobic exercise (AE), and combination of GIE 800 mg/kg and AE (GIEAE) daily for 45 days. All treatment animals showed a significant reduction in food intake, body weight, body mass index (BMI), and abdominal circumference (AC). A significant decrease in blood glucose and insulin levels decreased insulin resistance, and improved glucose tolerance was observed in the treatment animals when compared with HFD and fructose fed animals. All treatment significantly altered lipid profile and attenuated the levels of uric acid, C-reactive protein, TNF-α, and marker enzyme (AST, LDH and CK-MB) in serum and malondialdehyde in heart and restored the depleted levels of glutathione and antioxidant enzymes (superoxide dismutase, catalase, glutathione peroxidase and glutathione reductase) and significant elevation was observed in adiponectin levels. The best mitigation was shown by GIEAE treatment indicating that regular exercise along with adequate consumption of antioxidant and polyphenol rich kokum in diet can help control MetS.

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Study of the relationship between abdominal obesity and microalbuminuria in elderly

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Background: Obesity, both directly and indirectly, increases the risk for variety of disease conditions including diabetes, hypertension, liver disease and certain cancers, which in turn decrease the overall lifespan in both men and women. Proteinuria was identified as a significant predictor of end-stage renal disease (ESRD) in a mass screening of volunteers and reported as a risk factor for cardiovascular or total mortality. Though the cardiovascular risks of obesity are widely acknowledged, less often identified is the relationship between obesity and renal function.

Aim: The aim of this work was to study the relationship between abdominal obesity and microalbuminuria (MA) in elderly subjects.

Methods: A cross sectional study was conducted on 200 elderly subjects, aged ≥60 years. Subjects were recruited from both Geriatrics and Gerontology Department and Internal Medicine at Ain Shams University Hospital, Egypt. All patients had done anthropometric measurements including weight, height, body mass index, waist circumference, hip circumference, waist hip ratio and also assessment of blood pressure and albumin/creatinine ratio in urine.

Results: Mean age of participants was 74.96±5.603 years. Mean waist circumference in whole sample was measured 96.78±16.85, mean hip circumference was 106.31±19.24, mean waist hip ratio was measured 0.91±0.09 and mean body mass index was 27.83±9.8. All of waist circumference, waist hip ratio, systolic blood pressure, hypertension, diabetes mellitus, ischemic heart disease, and renal disease were significantly related to microalbuminuria (MA). Also, fasting blood sugar, serum triglycerides and renal functions were related to MA, meanwhile on multivariate analysis of abdominal obesity as measured by waist hip ratio was the strongest variable correlated with MA in elderly subjects in the whole sample.

Conclusion: Abdominal obesity is strongly associated with microalbuminuria in Egyptian elderly

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