

Conclusions: The data suggest that EAT as ectopic visceral fat depot may affect on diastolic function and LV remodeling. Increased EAT thickness is strongly associated with LV diastolic dysfunction.

BRACHIAL-ANKLE PULSE WAVE VELOCITY IS INVERSELY ASSOCIATED WITH OBESITY IN A HEALTHY CHINESE POPULATION

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Objective: Obesity is generally considered undesirable on account of its association with metabolic syndrome and other risk factors for cardiovascular disease. However, obese subjects paradoxically appear to have better outcome following certain interventions (eg vascular interventions in heart failure) compared to non-obese subjects, suggesting a vascular protective effect of obesity (obesity paradox). This study aimed to quantify the association between indices of obesity and arterial stiffness as measured by brachial-ankle pulse wave velocity (baPWV) in a healthy Chinese population.

Design and method: Normal individuals (n=858) attending a health assessment clinic for cardiovascular disease screening at Ruijin Hospital North, Shanghai, China, between April 2017 and June 2018, had measurements of baPWV (Omron, BP-203RPEIII VP-1000) and brachial systolic (SP), diastolic (DP), mean (MP) and pulse pressure (PP). Subjects were divided into 3 groups according to their Body Mass Index (BMI, kg/m²): BMI less than 24, normal; 24-28, overweight; greater than 28, obese (using Chinese guidelines).

Results: All brachial pressures were significantly higher as BMI increased. baPWV increased significantly when the normal group was compared with overweight or obese groups (p<0.001). However, no differences were apparent between the overweight and obese group, with baPWV being lower in the obese group with higher BMI. Using baPWV as the independent continuous variable in multiple linear regression, age, MP and heart rate were all positively associated with baPWV, whereas BMI was negatively associated with baPWV after adjusting for confounding factors ($\beta=-0.104$, p<0.001). A negative linear relationship between BMI class and baPWV was only apparent for males less than 50 years (p=0.01) and females of age above 50 years (p<0.01).

Conclusions: baPWV, as a measure of arterial stiffness, is higher for similar SP values in the normal individuals when compared to those in overweight and obese groups, consistent with the "obesity paradox". The disparate effects of BMI on baPWV are likely due to sex differences that affect arterial stiffness in older overweight and obese individuals.

OBESITY: A MAJOR PUBLIC HEALTH HAZARD AND LEADING CAUSE OF METABOLIC DISEASES

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Objective: Obesity has become a major public health hazard and its prevalence continues to rise in Pakistan faster than ever. Obesity is major risk factor for many cardiovascular diseases. High cholesterol is a key factor for the development of type-II diabetes mellitus, dyslipidaemia, chronic kidney disease, and non-alcoholic fatty and liver disease. There is a linkage between serum cholesterol and triglyceride levels and atherosclerotic cardiovascular disease in type I and type II of hyperglycaemia. The relationship between obesity and type-II diabetes mellitus is multifaceted and closely intertwined with other co-morbidities present in obesity

Design and method: An interventional study was designed for a period of six months among 300 patients selected via purposive sampling with 95% confidence interval using slovin's formula. All the interventions were performed as per standard guidelines later the same tests were carried out to assess the outcomes. Pre and post interventional Proforma/data analysis sheet were filled by the investigator and then the outcomes were compared.

Results: Majority (25.5%) of the patients who participated in the study were in the age group 60-96 which shows an increase in obesity occurrence with advanced age. About 48% patients have had BMI more than 30 and about 29.5% have had BMI range of 25-29.9. most of the patients about 35.5% didn't check their blood glucose level before intervention and 121(60.5%) patients have had high cholesterol level and 79 patients with high cholesterol had glucose level above 126 mg/dl.

Conclusions: The study findings revealed that Patients' attitude (treatment, diet intake, sleeping and exercise habits) mean scores, pre-counselling and post-

counselling for patients were significantly different and had improved after our interventions. Post interventions results revealed that the patients upgraded their practice by intermittently checking their blood glucose level, control smoking habit and maintain their life styles.

OBESITY AND ELEVATED LEVELS OF VON WILLEBRAND FACTOR IN PATIENTS WITH HYPERTENSION AND EARLY CORONARY ATHEROSCLEROSIS

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Objective: Obesity is one of the additional risk factors for early development of atherosclerosis and cardiovascular complications in patients with hypertension. Von Willebrand factor (vWF) is a plasma glycoprotein which plays an important role in the thrombogenesis. On the other hand it is considered as a marker of the endothelial dysfunction. The objective of our study was to assess the level of vWF in patients with hypertension and early manifestations of coronary atherosclerosis depending on the presence of obesity.

Design and method: 79 middle-age (49,88 ± 7,77) patients with hypertension and established coronary atherosclerosis (71 men and 8 women) were involved into study. According to the calculating body mass index (BMI), all subjects were divided into 2 groups: 22 obese people (BMI above 30 kg/m²) and 57 non-obese patients. In all patients we analyzed family history, smoking status, history of diabetes. The plasma lipid profile and vWF level were estimated using EIA kit (Usn Life Science Inc., Cloud-Clone Corp., USA).

Results: Both groups did not differ in the family history of cardiovascular disease, smoking status and diabetes. Though all patients received statins triglycerides levels were significantly higher in obese patients [95%CI: 1.50; 2.57] compared with patients in the other group [95% CI: 1.29; 1.70] (p<0.05). Almost all but one obese patient had high levels of vWF [95% CI: 53.87; 72.38]. Among patients with a BMI below 30 kg/m², normal values of vWF were detected in 21 patients [95% CI: 41.38; 52.76]. The groups significantly differed in the level of vWF, both when calculating the odds ratio (OR) using the Pearson chi-square criterion [OR: 5.6; p=0.0035] and when comparing samples according to the Student's t-criterion (p<0.005).

Conclusions: Results of the study suggest enhanced endothelial dysfunction as one of the possible links between obesity and increased risk of cardiovascular complications in patients with hypertension.

INCIDENCE OF OBESITY AND ACCOMPANYING RISK FACTORS IN URBAN AREAS OF SINDH, PAKISTAN

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Objective: To analyze the occurrence of obesity and its connected risk factors among urban population.

Design and method: This observational study was conducted for a period of about six months from April 2019 to September 2019 in urban areas of sindh province. Data was collected from 400 patients in a suitably designed form which included demographic details of the patients, their biochemical and physical examinations.

Results: According to the results, 56.8% patients were found to be obese. Females being single, married, widow and eating more meat were generally suffering from obesity. The percentage of three types of obesity was as: General obesity only (3.0%), central obesity only (34.2%) and combined obesity (19.6%). It was further found that general obesity was generally associated with hypertension, diabetes and high levels of triglycerides and on the other hand combined obesity and central obesity only were found to be associated with high total cholesterol, low HDL cholesterol and high LDL cholesterol.

Conclusions: This study concluded that there was more incidence of obesity in the population of urban areas of Sindh, Pakistan

COMPOUND 21 IMPROVES VASCULAR FUNCTION IN THE THORACIC AORTA FROM OBESE MICE: IMPLICATION OF AT2, MAS AND B2 RECEPTORS

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