

examination, electrocardiogram, ultrasound “Doppler” examination, plain X-ray and laboratory estimation of serum levels of: fasting and post prandial glucose, urea, creatinine, uric acid, lipid profile, calcium (total and ionized) and inorganic phosphate, quantitative C-reactive protein (CRP), intact parathyroid and matrix carboxy glutamic acid protein (MGP) in addition to estimation of blood glycated hemoglobin.

Results: Doppler ultrasound showed increased values of the carotid intima media thickness in the mixed group followed by the ischemic and then the diabetic group and also detected vascular calcification in the patients group. MGP level was significantly higher in both the ischemic and the mixed group than in the control groups. In addition, diabetic patients with poor glycemic control showed significantly higher values of MGP when compared to diabetic patients with good glycemic control and the control group.

Conclusion: The significant increase of MGP level in the ischemic and mixed groups than the control group reflects a compensatory mechanism to overcome the calcification process. In addition, its significant increase in patients with elevated HBA_{1c} denotes that poor glycemic control is a very strong, independent predictor of vascular calcification.

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Matrix metalloproteinase-9 (MMP9) and high sensitivity C – reactive protein (hs-CRP) in coronary artery ectasia

W. Ammar^a, M. Kappary^a, Y. Baghdady^a, M. Shehata^b

^aDepartment of Cardiology, Cairo University, Egypt, ^bDepartment of Clinical Pathology, Cairo University, Egypt.

Objective: The specific causative mechanisms of abnormal luminal dilatation in coronary artery ectasia (CAE) are essentially unknown. Destruction of extracellular matrix may be responsible for the ectasia formation. Thus, we investigated the role of matrix metalloproteinases (MMP9), and inflammatory marker (high-sensitive C-reactive protein) in CAE patients.

Methods: This study consisted of 30 consecutive CAE patients, 30 obstructive coronary artery disease (CAD) patients, and 20 controls with normal coronary arteries undergoing cardiac catheterization. Plasma levels of MMP-9, and hs-CRP were measured.

Results: Hs-CRP level was significantly higher in the CAE group than both in CAD and control groups (2.3 ± 0.5 , 1.19 ± 0.54 , 0.8 ± 0.3 mg/l, respectively, both $p < 0.001$), while, MMP-9 level was significantly higher in both CAE group and CAD than control groups (27.71 ± 4.7 , 25.2 ± 4.1 , 18.6 ± 3.3 ng/ml, respectively, both $p < 0.001$). In subgroup analyses, MMP-9 level was significantly higher in CAE patients with multivessel involvement compared with those with single-vessel ectasia (29.4 ± 3.1 vs. 25.2 ± 5.5 ng/ml, $P = 0.01$), while hs CRP level was comparable in both groups (2.3 ± 0.52 vs. 2.4 ± 0.45 ng/ml, $P = 0.82$).

Conclusion: Our results suggest that the increased levels of MMP-9, hs-CRP may be responsible for ectasia formation in patients with CAE and plasma level of MMP-9 is correlated with the severity of CAE.

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Prevalence of metabolic syndrome among adults in Suez Canal area

Fathi A H Maklady, Hanan M Kamal, Azza Z El-Eraky, Omar H Hassouna

Cardiology Department, Suez Canal University, Egypt.

Introduction: The metabolic syndrome is a clustering of cardiovascular risk factors, specifically, hypertension, diabetes, dyslipidemia and obesity is increasingly being recognized as an important factor in the pathophysiology of atherosclerosis and as a target of therapy.

Objective: The aim of this work was to screen the prevalence of metabolic syndrome in Suez Canal area among adults.

Subjects and methods: This study was conducted as a cross-sectional study. 145 subjects Inhabitants of Suez Canal area were included into this study. Detailed medical history with complete clinical examination and laboratory analysis were performed to screen the metabolic syndrome (MS).

Results: 42.1% of the studied population had metabolic syndrome. 35.2% of the studied subjects were hypertensive and 33.8% of them were diabetic. 64.1% of the studied subjects had a family history of diabetes and 61.4% of them had a family history of obesity. There were significantly higher mean of age, weight, BMI, waist circumference, SBP, DBP, triglycerides and FBS among subjects with MS than subjects without MS ($p < 0.05$), while there was significantly lower mean of HDL among subjects with MS than subjects without MS ($p = 0.004$). **Conclusion:** The prevalence of Metabolic Syndrome of the studied population is 42.1%. 11% of studied population fulfilled five criteria of metabolic syndrome. The majority of the studied subjects had abdominal obesity (80.7%); obesity is more common in females than males. Obesity is the major driver of MS.

Recommendation: Initiate, encourage and maintain intensive life style modifications. Accurate and detailed assessments of the metabolic syndrome in Egypt serve as base-line national data. Screening for MS should be done as a national project in Egypt.

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Mitral balloon valvotomy in pregnant women: Long-term follow-up

Mohamed Eid Fawzy.

Background and aim of the study: The study aim was to examine the long-term outcome (nine years) of mitral balloon valvotomy in pregnant patients with severe mitral stenosis.

Methods: Twenty-three patients with severe, symptomatic (NYHA class III/IV) mitral stenosis underwent mitral balloon valvotomy using an Inoue balloon technique during the second trimester of their pregnancy; mean follow up was 5.1 ± 2.8 year (range: 1–9 years).

Results: The procedure was successful in all patients. Immediately after valvotomy, the Doppler-derived mitral valve area increased from 0.90 ± 0.18 to 1.97 ± 0.36 cm² ($p < 0.0001$), and the transmitral mean gradient decreased from 15.7 ± 4.7 to 5.5 ± 1.6 mmHg ($p < 0.0001$). Four patients had mild worsening of mitral regurgitation, and six developed insignificant interatrial communication immediately after valvotomy. There was no other morbidity or mortality. Patients showed a significant improvement in mean NYHA class. Twenty-two patients had normal deliveries; one cesarean section in