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ABSTRACTS

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without stenting is well established technique for coronary revascularization. The study designed to detect cardiac injury during the technique by measuring postprocedural serum cardiac troponin I (CTNI) and MB isoenzyme of creatine kinase (CK-MB).

Methods: The serum level of CTNI and the activity of CK-MB were measured by standard methods in 100 patients undergoing elective PTCA, before and 12 hours and 24 hours after the procedure. The mean patients age was 64 ± 12 years.

Results: The frequency of abnormal CK-MB increase after the coronary intervention was 18.7% but that of CTNI elevation was markedly higher than that of CK-MB (50.4% vs 18.7%) ($p < 0.01$). Fifty six percent of the patients underwent coronary stenting. The frequency of abnormal increases of the both parameters in the stenting group were higher than those of PTCA group; 53.2% vs 31.9% and 17.3% vs 25.4% in the cases of CTNI and CK-MB respectively ($p < 0.001$ in the both cases). The CTNI increase was significantly correlated with the number of diseased vessels ($p < 0.05$).

Conclusions: It was concluded that minor cardiac injury following PTCA increase the serum levels of CTNI and the activities of CK-MB. CTNI is more sensitive than CK-MB in detection of the injury.

Funding: The incidence of CTNI release is significantly higher in patients undergoing stenting.

Tu-P7:87 PARENTAL EARLINESS OF CHD AND PARENTAL HISTORY OF SMOKING AS DETERMINANTS OF CAROTID IMT IN THE PROGENY

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Objective: To assess whether earliness of CHD (< 60 year of age) is a determinant of carotid intima media thickness (IMT) in the progeny; and whether the parental history of smoking may act as a confounder in the estimation of atherosclerosis heritability by carotid IMT measurements

Method: 116 offspring of patients with premature CHD (P-CHD) and 42 offspring of patients with not premature CHD (NP-CHD) were assessed clinically and with carotid B-mode ultrasound

Results: The age at CHD onset was 50 ± 6 y in parents with P-CHD and 64 ± 3 y in parents with NP-CHD. These groups had similar prevalence of hypertension, NIDDM and dyslipidemia. History of cigarette smoking was positive in 74% of parents with P-CHD and in 45% of parents with NP-CHD ($p < 0.001$). The offspring were basically healthy young subjects (age 33 ± 5.8 ; females 51%, never smokers 61%, normal weight 74%; normotensive 89%, LDL-C ≤ 130 mg/dl 66%). As expected, IMT was significantly lower in females and directly related to age. Progeny of P-CHD and NP-CHD had similar BP, BMI, TC, LDL-C, HDL-C and TG but the former were younger (28.5 ± 5.4 vs. 32.6 ± 2.3 y, $p < 0.0001$). After data adjustment for sex, age, and smoking habits, Max IMT in offspring of P-CHD subjects was significantly higher than in offspring of NP-CHD (0.94 ± 0.19 vs. 0.86 ± 0.18 , $p = 0.048$). No differences in IMT measures were found when the progeny of CHD patients with or without history of smoking were compared

Conclusions: Parental earliness of CHD is a determinant of carotid Max IMT in the progeny whereas parental history of smoking is not

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Tu-P7:88 FERRITIN/FOLATE INDEX AS AN EARLY PREDICTOR OF ATHEROSCLEROSIS IN PATIENTS WITH PRE-DIABETES

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Objectives: The early phases of diabetes development is associated with oxidative stress and atherosclerosis. Recent studies had shown that high ferritin and low folate levels have been related with atherosclerosis development in type 2 diabetes. The aim of this study is to evaluate these two parameters to find out their influence on development of atherosclerosis in early phases of diabetes (pre-diabetes).

Methods: This study was done over random sample of 52 patients: 17 male (34%) and 34 females (66%). They were separated in two groups: group N-patients with normoglycaemia and group D-patients with prediabetes (45%).

Results: 52 patients were examined; mean age of group N=63, 42 ± 10.9 years; group D=64, 54 ± 8.9 years. Values of HbA1C were in

group N= $4.67\% \pm 0.3$; in group D= $4.96\% \pm 0.4$; ferritin in group N=74, $1\text{mg/mL} \pm 18.2$; in group D=134, $1\text{mg/mL} \pm 16.2$. The levels of folate were in group N=10, $9\text{mg/mL} \pm 6.2$; in group D=8, $1\text{mg/mL} \pm 3.2$. The results indicated statistically higher index ferritin/folate ($p < 0.008$) in group D-patients with prediabetes.

Conclusions: Index ferritin/folate can suggest a high probability for atherosclerosis development in early phases of diabetes (pre-diabetes).

Funding: Index ferritin/folate is simple screening test in routine clinical practice for determination of possible atherosclerosis development in risk patients.

Tu-P7:89 PLASMA CONCENTRATION OF BRAIN NATRIURETIC PEPTIDE AS INDICATOR OF ATHEROGENESIS AND CARDIAC EVENTS IN PATIENTS ON HEMODIALYSIS

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Introduction: High mortality rates of cardiovascular events in patients on hemodialysis incited early detection of factors causing cardiovascular events.

BNP secreted from the cardiac ventricle in plasma and is one of the most important indicators of LV dysfunction.

Materials and Methods: Our study included 242 patients with chronic renal insufficiency undergoing hemodialysis. The patients were divided into three groups:

N=242

Cardiopathic patients		Diabetics	Other patients on HD
115		40	87
Males	Females	Mean age of males	Mean age of females
130	112	56 ± 15 x	61 ± 14 x

All patients were dialyzed with polysulfone membrane three times per week for four hours. BNP was determined before dialysis by middle of the week. Statistical analysis was performed by Kruskal-Wallis method and also Mann-Whitney. Determination of BNP in plasma was based on microparticle enzyme immunoassay (MEIA) technique. Echo. examination revealed HLIV in group I.

Results: Concentration of BNP was significantly higher in cardiopathic patients compared to diabetic patients $p \leq 0.05$; compared to other dialyzed patients $p \leq 0.0001$ which is statistically significant.

BNP

Cardiopathic patients	Diabetics	Other
1568 ± 177.28	966 ± 937	433 ± 317

$p < 0.01$ Cardiopathic patients vs. Diabetics, $p < 0.001$ Diabetics vs. Other.

Conclusion: Our results suggest that BNP is an important diagnostic marker and strategically important factor in detecting cardiac dysfunction among dialyzed patients, especially left ventricle dysfunction, an important factor of mortality in patients with end stage renal disease. Early diagnostics is extremely important in preventing cardiac dysfunction and its potential consequences where BNP can serve as a screening marker of systolic-diastolic LV dysfunction in patients on hemodialysis.

Tu-P7:90 EFFECT OF DOBUTAMINE STRESS ECHOCARDIOGRAM ON MYOCARDIAL PERFORMANCE INDEX IN CORONARY ARTERY DISEASE AND IN SYNDROME X

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Background: This study evaluated the effect of left ventricular (LV) myocardial ischaemia on LV myocardial performance index (MPI) during Dobutamine stress echocardiogram (DobS) in patients(pts) with coronary artery disease(CAD) and in syndrome X having normal ejection fraction.

Methods: Twenty six (14 males, 12 females, aged 53 ± 7 years) pts with CAD and 19 (8 males, 11 females, aged 49 ± 11 years) pts with syndrome X underwent incremental Dob S from 5 to 40 mcg/kg/min followed by Atropine if required. Myocardial performance index was calculated as the sum of the Doppler-derived isovolumic contraction and relaxation time divided by the ejection time. All medications had stopped during the DobS.