(NT-proBNP) protein was higher in patients with than in those without AF (6.23 ± 0.62 vs 4.72 ± 0.33, p = 0.012, n = 176). We also performed an exploratory analysis only in patients without signs of coronary artery disease on CTCA (AF=27, SR=80). In this subgroup, NT-proBNP (6.478 ± 0.8442 vs 4.554 ± 0.4122, p = 0.023*), BNP (1.111 ± 0.083 vs 0.9713 ± 0.029, p = 0.0175*), Stem Cell Factor (SCF, 162.8 ± 7.860 vs 140.4 ± 5.127 p = 0.0097**) and VEGF-D (47.44 ± 2.708 vs 41.38 ± 1.694 p = 0.0389*) were higher in the 27 patients with AF.

Conclusion While NT-proBNP is mostly known as a marker for heart failure, NT-proBNP appears as a potential blood marker for AF in patients without history of stroke, hypertension, diabetes or heart failure. Further validation of these initial, hypothesis-generating results seems warranted.

218 THE RELATIONSHIP BETWEEN CAROTID ARTERY INTIMAL-MEDIAL THICKNESS AND LEFT VENTRICULAR FUNCTION BY SPECKLE TRACKING ECHOCARDIOGRAPHY IN PATIENTS WITH CORONARY ARTERY DISEASE

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Background and aim of the work Since cardiovascular diseases are associated with high mortality and generally undiagnosed before the onset of clinical findings, there is a need for a reliable tool for early diagnosis. Carotid intima-media thickness (CIMT) is a non-invasive marker of coronary artery disease (CAD) and is widely used in practice as an inexpensive, reliable method. Left ventricular (LV) function can be accurately assessed by 2D speckle-tracking strain echocardiography (2D-STE). In our study, we aimed to investigate the relationship of CIMT and LV function assessed by 2D-STE in patients with stable (CAD) and the ability of 2D-STE and CIMT to predict significant CAD.

Methods Cross sectional study included 40 patients with history suspected stable angina pectoris, normal LV ejection fraction. All patients were examined by 2D-STE, carotid ultraound, and coronary angiography (CA). 2D-STE was performed in the 3 apical projections. Peak regional longitudinal systolic strain was measured in 17 myocardial segments and averaged to provide global longitudinal peak systolic strain (GLS). LVGLS results were compared with CA findings in a receiver operating curve (ROC) to determine the cut-off for normal and abnormal strain values. The calculated optimal strain value was compared to mean CIMT measurements. The patients were divided into two groups according to the result of the CA: group 1 (29 patients) with significant coronary lesion > 70%, and group 2 (11 patients) having at least one lesion more than 50% within the main branches of the coronary arteries.

Results GLS was significantly lower in patients with CAD+ (group 1) compared to patients without CAD- (group 2) [−11.86 ± 2.89% versus −18.65 ± 0.79%] P < 0.001. ROC curve between GLS and CA showed cut-off value for LVGLS was less than -15.6% for prediction of significant CAD with AUC = 0878; 95% CI 0.78–0.96 p 0.00. The diagnostic performance of GLS for detecting severity of CAD was [sensitivity 93.1%, specificity 81.8% and accuracy 90%]. The mean CIMT was 1.49 ± 0.35 mm in group 1, vs 0.75 ± 0.3 mm in group (2) (p = 0.000). ROC curve between mean CIMT and CA showed cutoff value for mean CIMT was > 1.1 mm for prediction of significant CAD with AUC= 0.871 (95% CI 0.79–0.97, p 0.00. There was a significant, nearly linear correlation between IMT and GLS and advancing CAD (p, 0.00), as there was incremental significant increase in CIMT and decrease of GLS with increasing number of coronary vessels involved. Further analyses showed that GLS was highly significant negatively correlated with mean CIMT.

Conclusion GLS assessed by 2DSTE at rest was predictor of significant CAD; So 2DSE seems capable of identifying high-risk patients. Increased carotid IMT values were associated with decreased LV function assessed by 2D strain measurements and the presence and severity of CAD. So these findings support the use of carotid IMT measurements as marker of subclinical LV dysfunction and to predict risk and severity of coronary heart disease.

219 HIGHLY SELECTIVE TROPONIN T (HSTNT) AND HEART-TYPE FATTY ACID-BINDING PROTEIN (H-FABP) AS MARKERS OF TYPE 4A MYOCARDIAL INFARCTION AND ADVERSE EVENTS IN ELECTIVE PERCUTANEOUS CORONARY INTERVENTION (PCI)

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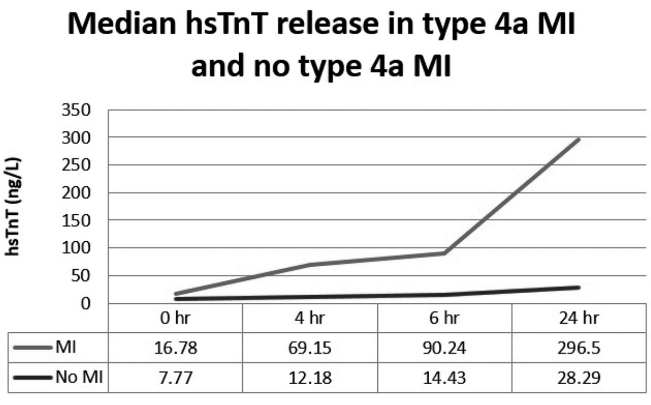
Introduction Heart-type Fatty Acid-Binding Protein (H-FABP) may be useful for early diagnosis of ACS1,2 and has been associated with increased cardiovascular events. Type 4a procedural myocardial infarction (MI) may occur after percutaneous coronary intervention (PCI).3 Little is known about the use of early biomarkers as predictors of cardiovascular events following elective PCI.

Methods We prospectively evaluated highly sensitive troponin T (hsTnT), H-FABP, troponin I (TnI), creatine kinase MB type (CKMB), myoglobin, glycogen phosphorylase BB (GPBB) and carbonic anhydrase III (CAIII) at 0, 4, 6 and 24 h following elective PCI. Baseline demographic and cardiac risk factors were recorded. The primary endpoint was type 4a MI, diagnosed as a rise of >5 × 99th upper reference limit (URL) of 14 ng/L (i.e. rise of >70 ng/L) at 6 h if hsTnT was normal at baseline or > 20% from 0 to 6 hrs if hsTnT was >14 ng/L at baseline.3 Patients were followed up at 1 year to assess for



Abstract 219 Figure 1 hsTnT release between type 4a MI (n = 37) and no type 4a MI (n = 172)