

3D left atrial volume (LAV) and left ventricular (LV) dyssynchrony in patients of acute ST-elevation myocardial infarction (STEMI) who underwent primary Percutaneous intervention (PCI).

**Background:** Various biochemical (eg. NT-proBNP) and echocardiographic parameters (eg. LV dyssynchrony and Left atrial volume) of patients with acute coronary syndrome (ACS) have been associated with response to PCI and predict the short and long-term prognosis.

**Methods:** This prospective study consisted of 142 patients with a first STEMI who underwent primary PCI were enrolled. Baseline echocardiographic data was collected at admission and at 6 months follow-up. Left ventricular dyssynchrony was measured by tissue Doppler imaging (TDI) and LAV by real time 3D-echocardiography, plasma NT-proBNP levels estimated between 72-96 hours of admission.

**Results:** During study period 3 patients expired and 4 patients developed congestive heart failure. Baseline NT-proBNP and LV dyssynchrony correlated with LV size and LV ejection fraction (LVEF) at baseline and during follow up. Patients with higher NT-proBNP levels and severe LV dyssynchrony showed significant increase in LV size with decrease in LVEF during follow-up. Baseline Left atrial volume index (LAVI) showed significant correlation with LV size and no association with LVEF at baseline and during follow-up.

**Conclusions:** Higher levels of NT-proBNP and severe LV dyssynchrony can predict patients with increase in LV size, worsening of LV systolic and diastolic function during follow-up. Patients with higher NT-proBNP levels at baseline developed CHF during follow-up. Base line LAVI has no prognostic value in predicting follow up LV size and function. Left ventricular dyssynchrony was measured by tissue Doppler imaging (TDI) and LAV by real time 3D-echocardiography, plasma NT-proBNP levels estimated between 72-96hours of admission.

### Role of ankle brachial index (ABI) diabetes hypertension and waist hip ratio as a predictor of severity of coronary artery disease by SYNTAX score

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**Background:** Coronary artery disease is one of the leading causes of morbidity and mortality in India. Now a days there is increasing incidence and prevalence of associated risk factors like Diabetes Mellitus(DM), hypertension (HTN), smoking and waist/hip (W/H) ratio and hence the severity and complexity of the coronary lesion. In the setting of above coronary risk factors there is high burden of the atherosclerosis in the peripheral arteries too, which is an index of coronary atherosclerotic burden too and considered coronary artery disease equivalence. Hence the index of peripheral artery disease ankle Brachial Index (ABI) is studied with coronary artery disease angiographic severity by SYNTAX score.

**Methods:** Patients with coronary artery disease STEMI, UA /NSTEMI were studied. Chronic stable angina, dilated cardiomyopathy, ischemic cardiomyopathy and chronic kidney disease patients with coronary artery disease patients were excluded from the study. The suitable defined patients are screened for diabetes and hypertension then ankle brachial index, W/H, and

syntax score of coronary angiographic lesions (by computer assisted syntax score calculator) are calculated, and analyzed the data for its correlation.

**Results:** Analysis of 211 patients of ACS revealed the following data. The mean age of presentation was  $54.6 \pm 9.98$  yrs. Among them 81% (n=171) were males and 19% (n=40) were females with male: female ratio 4:1. with regard to risk factors Diabetes, HTN and smoking were present in 35.5%(n=75), 62.1%(n=131) 52.2%(n=108) respectively. Mild, intermediate and high syntax scores of these patients compared to their counterparts was found to be significantly higher (p=.0001). when compared to single vessel disease, double and triple vessel disease found to be higher, which is statistically significant (p=.0001).

With regard to clinical parameters Ankle Brachial Index (ABI) <0.9 was found to be statistically significant in correlation with severity of syntax score and also number of vessels involved (p=0.0001). On analysis for the significant correlation between Waist hip ratio (W/H ratio) and severity of CAD, was not proven (chi square test, p=0.22). Out of the clinical parameters ABI is an effective predictor of not only with regards to peripheral arterial disease but also to the severity of coronary artery disease by syntax score.

**Conclusions:** The early diagnosis of CAD can be done by evaluation of diabetics, hypertensives and smokers. SYNTAX score gives an effective and Quantitative severity coronary artery disease burden clinically ABI is an easy and effective bed side tool, can be a substitute for the syntax score in the prediction of severity of CAD.

### Clinical predictors of successful thrombolysis with streptokinase and possible circadian periodicity in Acute Myocardial Infarction

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**Aim:** To determine the successful revascularisation rate following thrombolysis with streptokinase (SK) in Acute Myocardial Infarction (AMI) patients using ECG criteria and its association with various independent variables and outcome parameters and to assess possible diurnal fluctuations in the efficacy of thrombolysis with streptokinase and its circadian periodicity.

**Methods:** 50 consecutive AMI patients treated with SK were studied retrospectively in a tertiary care hospital during the period of January 2014 to June 2014. Success or failure of thrombolysis was determined according to accepted conventional clinical and ECG criteria. In this study successful thrombolysis with SK was defined as more than 50% reduction in ST elevation after 90 minutes of thrombolysis in the worst infarct lead, complete relief of chest pain and evidence of reperfusion arrhythmias. 24 hour day was divided into 8 three-hour interval from midnight to correlate for any circadian periodicity.

**Results:** Out of the 50 patients studied, 36 patients (72%) had successful thrombolysis, 14 patients (28%) had failed thrombolysis. Among the 36 who had successful thrombolysis, 27 patients (75%) fall in the time period between 12.00 hrs-21.00 hrs while most of the failed thrombolysis cases fall in the time period between 21.00 hrs - 24.00 hrs. Mean age group of successful thrombolysis were quite younger than those who failed. Inferior Wall with or without Posterior Wall MI, smokers ,