Background: Since cardiovascular diseases are associated with high mortality and generally, there is a need for a reliable tool for early diagnosis. Ankle brachial index (ABI) is a non-invasive marker of coronary artery disease (CAD) and is an inexpensive, reliable, and reproducible method. The current study aims to determine the relation between ankle–brachial index (ABI) and angiographic findings and major cardiovascular risk factors in patients with suspected coronary artery diseases (CAD).

Methods: In this prospective observational study, patients with suspected CAD were studied. Characteristics of studied subjects including atherosclerotic risk factors such as diabetes mellitus, hypertension, hyperlipidemia and smoking were obtained. ABI was measured in all studied patients. ABI ≤ 0.9 (ABI+) was considered as peripheral vessel disease and ABI >0.9 (ABI-) was considered as normal. Then, all studied patients underwent coronary artery angiography. The results of the angiographic findings were compared in ABI+ and ABI- groups.

Results: In this study, 100 patients were investigated. ABI ≤ 0.9 was seen in 20 patients (20%). The prevalence of ABI+ among men and women was 26% and 7%, respectively (P = 0.01). The prevalence of atherosclerotic risk factors was significantly higher in ABI+ patients than in ABI- ones (P < 0.05). ABI+ patients had more significant stenosis than ABI- ones.

The mean of occlusion was significantly higher in ABI+ patients with left main artery (LMA), right coronary artery (RCA), left anterior descending artery (LAD), and left circumflex artery (LCX) involvements (P < 0.05).

Conclusions: The findings of this study indicated that ABI could be a useful method in assessing both the atherosclerotic risk factors and the degree of coronary involvements in suspected patients.

Thrombolysis success rate beyond 90 minutes

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Background: The aim of the study was to assess the thrombolysis success rate beyond 90 minutes. Conventionally we assess the success rate at 90 minutes after thrombolysis. In our study we assessed the success rate at 120 minutes and at 180 minutes.

Methods and Results: 200 STEMI patients were enrolled. About 65% are anterior wall MI, remaining are Inferior wall MI. Median delay was 4.5 hours on average. All are thrombolysed with streptokinase after ruling out contraindication for thrombolysis. Success rate at 90 minutes were 42%, at 120 minutes were additional 18% and at 120 minutes were additional 11% patients with successful thrombolysis.

Clinical and angiographic profile of ACS patients and their short-term outcomes

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Background: Spectrum of ACS patients is variable across geographical areas and also in various institutes in same area.

Methods: ACS patients were evaluated for presenting clinical features, risk factor profile, in-hospital course and 6-month outcome.

Results: 516 ACS patients were enrolled, 30.8% STEMI and 69.2% NSTMI/UA. 65.1% were male and 34.9% female. Median age was 56 years. STEMI 53 yrs and NSTMI/UA 59 yrs. 52.5% patients were smoker, 63.5% in STEMI & 47.6% in NSTMI/UA group. 36.6% patients were diabetic & 35.6% were hypertensive. 41.3% were Dyslipidaemic 33.3% in STEMI and 44.8% in NSTMI/UA group. Peripheral vascular disease was found in 7% patients. 6% patients had family history of CAD. 15.3% and 10.4% were post PTCA & post CABG respectively.

1.4% patients presented with cardiac arrest (STEMI 3.1% & NSTMI/UA 0.5%). 3.6% patients developed cardiogenic shock (STEMI-7.5% & NSTMI/UA-1.9%), P-value <0.001. 4.4% patients developed atrial fibrillation (STEMI-5.6% & NSTMI/UA-13.6%). AV block developed in 5.3% patients (STEMI-9.4% & NSTMI/UA-3.3%). 4.3% patients had VT. Major hemorrhage occurred in 1.7% patients (STEMI- 4.4% & NSTMI-0.5%). CVA occurred in 1.7% patients (STEMI 1.8%, NSTMI/UA 0.5%). Median hospital stay was 5 days.

81.2% patients underwent coronary angiography. 38.9%, 26.8% & 24.4% patients had SVD, DVD & TVD respectively, 4.8% had LMCA disease. In STEMI group more patients had SVD 45.7% as compare to NSTMI/UA group 29%, p-value <0.001. In STEMI group 19.3% & 3.8% and in NSTMI/UA group 26.8% & 24.4% patients had DVD and TVD respectively. In-hospital death rate was 4.84%. 8.1% in STEMI & 3.3% in NSTMI/UA. Cause of death was cardiogenic shock 48%, LVF 28%, mechanical complication 8%, Arrhythmia 4%, and bleeding 4%. 6-month mortality was 6.3%, STEMI 8.9% and NSTMI/UA 5.1%.

Conclusions: ACS occurs at relatively young age in Indians. Smoking and Dyslipidaemia were most prevalent risk factors. In STEMI patients SVD is more frequent.

To validate the GRACE risk score in Indian ACS patients

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Background: Due to Geographic and racial variability of acute coronary syndrome patients, risk scores need validation for particular population.

Methods: In 516 ACS patients GRACE risk score for in-hospital and 6-month mortality was calculated according to the Eagle’s original model. Index of discrimination was used to assess the performance of the GRACE score. Calibration tool was used to assess how closely the predicted event rate approximates the observed event rate.