Results: Average period between previous CT and CAG/PCI in ACS was 871±617 days. Presence of hypertension (81%), dyslipidemia (67%) and smoking (67%) was very high. In previous CT image, 21 lesions (96%) were under 70% diameter stenosis (0%-3%, 1.50%-11, 51-70%-7) and very low attenuated plaque which minimum CT density was under 0HU was observed in 6 lesions. In ACS phase CT image, all lesions had 90% or 99% stenosis, very low attenuated plaque was observed in 4 of 9 lesions (44%) and non-descent CT score was observed in all lesions of 0HU. Calcium proliferation was observed in 5 lesions (56%). Distal embolism during PCI for ACS was observed in 2 lesions (22%).

Conclusion: We could observed 21 CT image which underwent before ACS onset and 9 CT image in just onset. The CT image before ACS had no special findings but CT image in ACS onset tend to have low attenuated plaque and calcium proliferation.

Other (Unclassified)

(TCTAP A-191 to TCTAP A-204)

TCTAP A-191

Intravenous Hydration Protocol Based on Left Ventricular End Diastolic Pressure to Prevent Contrast Induced Nephropathy

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Background: Contrast Induced Nephropathy (CIN) remains a major problem because of the use of iodinated contrast media in heart catheterization is increasing. Incidence of CIN among high-risk patients is up to 50%. Intravenous hydration with normal saline before and after cardiac catheterization is the most effective methods to prevent this problem, but the hydration rate, duration and total hydration amount is still a question. By using Left Ventricular End Diastolic Pressure (LVEDP) data, we could adjust the hydration according to the needs of each patient.

Methods: A total of 101 high-risk patients (estimated Glomerular Filtration Rate by Cockcroft-Gault ≤60mL/min/1.73m2) who undergo elective heart catheterization writing model consisted of age, diabetes mellitus, hypertension, current smoking, family history of coronary heart disease, myocardial infarction, stroke, and coronary revascularization. The C-index and Akaike Information Criterion in the train cohort were used to develop the best-fitting prediction model. In the validation cohort, to compare the model performances, the predicted versus the observed 5-year CVD event rates were compared by using the C-index and Nam and D statistic. Methods (standard and LVEDP based) by consecutive sampling methods. CIN is defined by absolute rise of ≥0.5 mg/dL or 25% increase of serum creatinine from baseline within 3 days after procedures.

Results: There were total of 5 patients who experienced CIN, 3 (5.7%) patients from LVEDP hydration method and 2 (4.2%) patients from standard hydration method. Statistically, the incidence of CIN between two groups was not significant with p=0.731. After a multivariate regression analysis, the odd ratio of LVEDP hydration method is 3.6 (95% confidence interval of 0.4 - 31.3).

Conclusion: There is no statistically significant difference incidence of CIN between LVEDP hydration method and standard hydration methods, but LVEDP hydration method seems to increase the risk of CIN.

TCTAP A-192

Model for Assessing Cardiovascular Risk in an Asian Population

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Background: The profile and prevalence of risk factors in cardiovascular disease were different between Western and Asian population. However, a model for predicting cardiovascular disease (CVD) in Asian populations is limited.

Methods: In total, 57,393 consecutive asymptomatic individuals aged 30 to 80 years without a prior history of cardiovascular disease who voluntarily underwent a general health examination, between January 2007 and June 2011, were enrolled. Subjects were randomly divided into the train (n=45,914) and validation (n=11,479) cohorts. Thirty-one possible risk factors were assessed. The cardiovascular event was a composite of cardiovascular death, myocardial infarction, stroke, and coronary revascularization. The C-index and Akaike Information Criterion in the train cohort were used to develop the best-fitting prediction model. In the validation cohort, to compare the model performances, the predicted versus the observed 5-year CVD event rates were compared by using the C-index and Nam and D’Agostino X² statistics.

Results: Over a median follow-up period of 3.1 (interquartile range, 1.9–4.3) years, 757 (1.3%) subjects had cardiovascular events. Possible scenario models for cardiovascular events were gradually developed and compared. In the train cohort, the best-fitting model consisted of age, diabetes mellitus, hypertension, current smoking, family history of coronary heart disease, white blood cell, creatinine, glycated hemoglobin, atrial fibrillation, blood pressure, and cholesterol. The C-index was 0.783 and the Akaike Information Criterion value was 11,911. When this model was tested in the validation cohort, it performed well in terms of discrimination and calibration abilities: its C-index was 0.802 and its Nam and D’Agostino X² statistic was 0.473.

Conclusion: A risk model based on traditional clinical and biological markers was developed. It has a feasible model performance in predicting cardiovascular events in an asymptomatic Asian population.

TCTAP A-193

Our CRT (Cardiac Resynchronization Therapy) Experience: Is Enough Being Done to BLOC Heart Failure in India?

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Background: Heart failure in India has reached epidemic proportions. Large multi-center observational studies must be initiated to quantify the disease burden and to identify the etiology of heart failure in our country.

Methods: We describe our retrospective analysis of the demographic data, clinical symptoms status, the ECG and the Teходatomic parameters of 60 patients with SHF with wide QRS of both ischemic and non-ischemic etiology pre-and post- CRT device implantation to assess the midterm and long term results from October 2007 till October 2013.

A total of 60 patients in the mean age group of 62± 12 years (youngest patient – 39 years, oldest patient – 86 years) with 95% of them in NYHA Class IV and 5% in NYHA Class III were taken up for CRT implantation during the period from October 2007 till October 2013.

Results: Out of these 60 patients – 29 suffered from essential hypertension and 21 from Diabetes Mellitus Type 2. 10 patients had a past history of CABG and 15 of PTCA. 6 patients were on pacemaker for complete heart block.

The etiology of heart failure was ischemic cardiomyopathy in 53 patients, dilated cardiomyopathy in 45% patients and severe aortic regurgitation in 2% of the patients.

ECHO showed a left bundle branch block pattern (LBBB) in 51, a right bundle branch block in 1, an interventricular conduction delay in 2, complete heart block in 3 and atrioventricular block in 3 patients. QRS duration was 0.14±0.06 seconds.

Mean Ejection Fraction was 22±6 %. Regional wall motion abnormality (RMWA) in 22 patients with 10 having single territory RWMA and 12 having multiple territory RWMA.

LVID (D) 62±14 mm
LVSD (S) 55±10 mm
Mitral regurgitation was present in 58 patients (mild in 21, moderate in 25, severe in 12), tricuspid regurgitation in 40 with varying degree of pulmonary arterial hypertension and aortic regurgitation in 3 patients.

CRT – P was implanted in 39 patients and CRT – D in 21.

Complications seen –

• Failure to get adequate LV lead placement 5 (All had surgical lead placement on same day)
• Coronary Sinus dissection Nil
• Pacemaker site Haematoma 1
• Pneumothorax 3
• Phrenic nerve stimulation 4
• Response to current modification 2

Conclusion: Follow-up Range from 7 days – 42 months. Mean Follow up of 14±8 months. Immediate clinical improvement seen in 32 patients, QRS duration decreased in 32 and increase in mean arterial pressure in 14 patients. 36 patients were responders, 7 non-responders, 8 died on follow-up. Cause of death: Recurrent LVF, CCF, Septicemia in 2 patients, sudden cardiac death (?) arrhythmia in 4, PTE, Hypoplastic anemia? Drug induced in 1 and hyperkalemia in 1 patient.

CRT is helpful in treating symptomatic SHF patients on OMT. However it is an expensive treatment modality and hence, not feasible for most self-paying patients in India. Therefore, trials of relevance to the clinical and socioeconomic conditions in India are needed.

Incorporating effective, comprehensive (primordial through tertiary) prevention of heart failure will provide the best opportunity to curb its projected rise.

TCTAP A-194

Clinical Outcomes of Bare Metal Stents in Patients with Acute Coronary Syndrome in Rural Health Center- A Single Center Follow up

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Background: The Safety profile of Bare Metal Stents (BMS) and Drug eluting stents (DES) in patients with Acute Coronary Syndrome (ACS) is still debatable. There are lot of controversies regarding late stent thrombosis with DES compared to BMS especially in patients with diabetes and patients with Left Anterior coronary artery (LAD) stenosis. Our study investigated the patency and long term results of BMS in a rural health care center in Pondicherry India.

Methods: A total of 75 diabetic patients with different Coronary artery involvement were analyzed over a mean period of 2 years (1.5 to 3 years) who presented to us with ACS and underwent subsequent Percutaneous Coronary Intervention (PCI) with BMS.

Results: The mean age of presentation was 50 years for men and 55 years for females. All patients underwent PCI with BMS. 34% of the cases had Proximal LAD stenosis,