19% of the cases had Mid LAD stenosis, 25% had Left Circumflex Artery (LCX) stenosis and 22% had Right Coronary Artery (RCA) proximal stenosis. 74% of the patients had 3mm diameter stents, 20% had 2.75mm and 6% had 2.5mm. The length varied from 12 mm to 28 mm. The mean follow up was for 2 years. Four patients (5.3%) had symptoms suggestive of restenosis out of which one patient (1.3%) died within 6 weeks duration due to drug default. The remaining 3 patients (4 %) had symptoms suggestive of restenosis became better with optimization of drugs. None of them required restudy or repeat revascularization during follow up. Repeat angiogram couldn't be done due to financial constrains. All other patients were asymptomatic.
Conclusion: The safety profile of BMS is not as inferior as it is thought. Most of the PCI with BMS were done for Proximal LAD stenosis. The Stent size, proper deployment, adherence to drugs, modification of risk factors reduces the chance of restenosis in BMS. This study emphasis that BMS is as still a good choice in Rural Health Care centers in India where there are financial constrains and no uniform insurance policy.

TCTAP A-195

The Impact of Multi-vessel Spasm on 3-year Clinical Outcomes Compared with Single Vessel Spasm as Assessed by Intracoronary Acetylcholine Provocation Test

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Background: Coronary artery spasm (CAS) is known to be a major cause of myocardial ischemia. Multi-vessel spasm (MVS) is likely to induce more severe and prolonged myocardial ischemia than single vessel spasm (SVS). The aim of this study is to evaluate the impact of MVS vs. SVS as assessed by the intracoronary acetylcholine (Ach) provocation test on 3 years clinical outcomes.
Methods: A total of 2,998 consecutive patients (pts) without significant coronary artery disease who underwent an acetylcholine (Ach) provocation test from Nov 2004 to Oct 2010 were enrolled. Among them, a total of 1,609 pts were finally diagnosed as Ach positive test and were divided into two groups; MVS group (n=555pts) and SVS group (n=1054 pts). To adjust potential confounders, propensity score matched (PSM) analysis was performed using the logistic regression model (C-statics: 0.81). After PSM, total of 1,068 pts (534 pairs) were enrolled for this analysis.
Results: After PSM, the baseline characteristics were balanced between the two groups. During the ACh test, the response rate to lower ACh doses that induce CAS was higher in MVS group. However, there were no difference of cumulative clinical outcomes including mortality, de Novo percutaneous coronary intervention (PCI), cerebrovascular disease (CVD), and repeated coronary artery angiography (CAG) due to recurrent chest pain up to 3 years (Table 1). Multivariate analysis showed that MVS was not a predictor of repeated CAG due to recurrent chest pain (OR:1.4, 95% CI: 0.9-2.2, p-value=0.189) and major adverse cardiac and cerebrovascular events (MACCE) including mortality, PCI, CVD, and repeated CAG due to recurrent chest pain (OR:1.3, 95% CI: 0.2-6.0, p-value=0.705).
Conclusion: MVS was associated with higher response rate to lower Ach doses, showing more vulnerable spastic response. However, MVS was not a predictor of repeated CAG due to recurrent chest pain and MACE as compared with SVS.

Variable, N (%)	MVS (n=534)	SVS (N=534)	p-value
Mortality	1 (0.1)	2 (0.3)	ns
Cardiac death	1 (0.1)	1 (0.1)	ns
De Novo PCI	2 (0.3)	0 (0.0)	0.500
Myocardial infarction (MI)	1 (0.1)	1 (0.1)	ns
Cerebrovascular accidents (CVA)	1 (0.1)	0 (0.0)	ns
Repeat CAG	43 (8.0)	32 (5.9)	0.188
MACE (Mortality, PCI, MI)	4 (0.7)	3 (0.5)	ns
MACCE (Mortality, PCI, MI, CVA, Repeat CAG)	45 (8.4)	34 (6.3)	0.198

TCTAP A-196

Impact of Low Dose Atorvastatin on Development of New-onset Diabetes Mellitus in Asian Population: Five-year Clinical Outcomes

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Background: High dose atrovastatin is known to be associated with new onset diabetes mellitus (DM) in patients (pts). We investigated the impact of low dose (10mg or 20mg) atorvastatin on the development of new-onset DM based on five-year clinical outcomes in Asian patients.
Methods: We investigated a total of 3,566 consecutive patients (pts) who did not have DM from January 2004 to September 2009. To adjust potential confounders, a propensity score matched (PSM) analysis was performed using the logistic regression model. The primary end-point was the cumulative incidence of new-onset DM which was defined as having a fasting blood glucose ≥126 or HbA1c ≥6.5%. and assessed to determine the impact of low dose atrovastatin (10mg or 20mg).
Results: Mean follow-up duration was 976±278 days in all-pt group, and 993±240 days in PSM group. After PSM (C-statistics: 0.851), a total 818 pts were enrolled for analysis. Adjusted with cox-regression analysis showed that low dose atorvastatin was an independent predictor of new-onset DM (OR=1.99, 95%CI 1.00– 3.98, p=0.050, figure A). After PSM analysis, total 98 pts (atorvastatin 10mg, 49 and 20mg, 40) were analyzed (C-statistics: 0.715). There was no difference in the cumulative incidence of new-onset DM between the two groups (figure B).
Conclusion: Low dose atorvastatin therapy was associated with the cumulative incidence of new-onset DM, however, there was no difference between atrovastatin 10mg and 20mg in Asian population.

Figure A. Cox regression curve showed that low dose atorvastatin therapy is associated with the cumulative incidence of NODM.

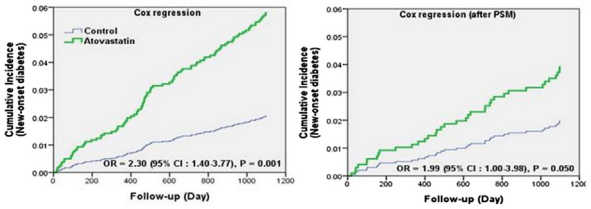
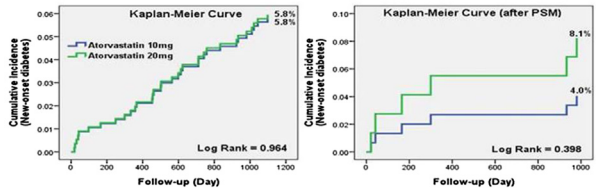


Figure B. Cox regression curve showd that there was no difference in the cumulative incidences of new-onset diabetes mellitus between atrovastatin 10mg and 20mg.



TCTAP A-197

Risk Factors, Biomarkers, and Echocardiographic Parameters According to Coronary Artery Calcium Scoring (Agatstone) Measured by 64-Channel Multidetector Computed Tomography

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Background: Coronary artery calcium scoring (CACS) has been known to be a predictor of cardiovascular events. However, there is very little information regarding the relationship among laboratory biomarkers, echocardiographic parameters, and CACS.
Methods: We investigated clinical characteristics, laboratory biomarkers and echocardiographic parameters of the 1230 patients (pts) underwent echocardiography and 64-channel multidetector compute tomography (MDCT) from 2007 to 2011. CACS was measured by Agatston score. Biomarker and echocardiographic parameters were compared between the CACS=0 group (n=428) and CACS>0 group (n=802).
Results: Diabetes mellitus, hypertension, and hs-CRP>2.0 mg/dl were more frequent in CACS>0 group. Uric acid, hs-CRP, LVMI, and E/E' were higher, whereas hemoglobin, eGFR, calcium, phosphate, LVEF, and HDL-cholesterol were lower in CACS>0 group as compared with CACS=0 group. In multivariate analysis adjusted by gender, age, diabetes, hypertension, smoking history, and GFR, we found that HDL-cholesterol level was lower in the CACS>0 group, whereas LVMI, and E/E' were higher in the CACS>0 group (table).
Conclusion: In our study, we found lower HDL-cholesterol, higher LVMI and E/E' were associated with CACS.

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