Background: It has been known that SYNTAX (Synergy between Percutaneous Coronary Intervention (PCI) with TAXUS and Cardiac Surgery) score (SS) could predicting major adverse cardiac events (MACEs). The accuracy of QCA in predicting the presence of significant LMCA bifurcation lesions, which defined as a minimum luminal area (MLA) <6 mm² of LMCA, or MLA <4 mm² for proximal LAD and proximal LCX by intravascular ultrasound (IVUS). 2D and 3D QCA were compared in their measurements of minimum luminal diameter, percent diameter stenosis, minimum luminal area, and percent area stenosis and in their prediction of IVUS cut-off values.

Results: In total 44 LMBs were interrogated in 44 patients undergoing elective percutaneous coronary intervention. Of all measurements of lesion severity obtained by 3D QCA, MLA best correlated with IVUS cut-off values of three vessel segments (LMCA: R = 0.96, R < 0.0001; LAD: R = 0.53, R = 0.0002; LCX: R = 0.66, R < 0.0001, respectively). 2D QCA measurements, MLD and MLA correlated best with IVUS cut-off values (LMCA: R = 0.81, R < 0.0001; LAD: R = 0.54, R = 0.0001; LCX: R = 0.58, R < 0.0001, respectively). Overall, the C statistics tended to be slightly higher for 3D- and 2D-QCA measurements in LMCA compared with ostial LAD and LCX, and there were nonsignificant predictive power of percent diameter stenosis and percent area stenosis on 3D QCA for LCX IVUS MLA <4 mm² percent diameter stenosis: area under curve 0.55, cutoff 23%, sensitivity 88%, specificity 37%, p=0.6186; percent area stenosis: area under curve 0.56, cutoff 41%, sensitivity 83%, specificity 38%, p=0.5184, respectively.

Conclusion: The accuracy of QCA in predicting the presence of significant LMCA lesions is limited. Where IVUS is not available or contraindicated, 3D-QCA may assist in the evaluation of intermediate LMAs with MLA. Among 2D- and 3D-QCA, absolute parameters such as MLAD and MLA are more accurate than percent parameters.

TCTAP A-047
Stent Patency in Bangladeshi Patient Population- A Prospective Cohort Study of 577 Patients for a Period of 3.4yrs
Apollo Hospitals, Dhaka, Bangladesh
Background: Coronary artery disease (CAD) is one of the leading causes of death in Bangladeshi population. Now a days, many of these patients are treated with PCI with stent deployment. However, long term data on the development of In-stent re-stenosis (ISR) in these patient is not well addressed. Therefore, the aim of our present study was to assess long-term outcome of stent patency or the development of ISR of various types of single vessel territory.

Methods: Patients were selected retrospectively from a prospective cohort of total 577 patients, who underwent coronary angiogram at our hospital for further evaluation of their previous PTCA site in the 3-36 months preceding the study for the quantifying period of 2006-2012. Among them, male: female were 474: 103. Average age was Male: 56; Female: 59. Average study period was 3.4 ±2.5 yrs.

Results: Among the studied population, our result shows that 82.1% (474) were male and 17.9% (103) were female. Female were more obese than male BMI (27 vs 26). Among the CAD risk factors; Dyslipidemia 84.2 % (486), HTN 77.1% (445), DM 61.7% (356), FH 21.7% (125), Hypothyroidism 1.2 % (7) and smoking 27.2% (129) were all male smoker. Total 864 stent were deployed in 785 vessels. Common stented territories were in LAD 366 (46.6%), LCX 183 (23.3%) and RCA 236 (30.1%). Stent used were BMS 105 (30.8%), DES 236 (69.2%), DES were classified as bare metal stent (BMS) and drug-eluting stent (DES). Territory wise total number of deployed stent in LAD 366 (45.8%), LCX 196(22.7%) and RCA 272(31.5%). Re-look Coronary Angiogram (CAG) revealed that the patency of stents in BMS 210(56.5%) and DES 308 (73.5%) treated vessel. Significant ISR (ISR>60%) developed in BMS 97(26.1%) and DES 74(17.6%)

Conclusion: In this prospective cohort of 577 patients for an average period of 3.4 yrs, we are able to show that DES has better patency with reduced ISR than BMS, in Bangladeshi patient population.