Background: It has been known that SYNTAX (Synergy between Percutaneous Coronary Intervention (PCI) with TAXUS and Cardiac Surgery) score (SS) could provide prognostic information in patients underwent unprotected left main (LM) PCI. However, little is known about the prognostic value of N-terminal pro-B type natriuretic peptide (NT-proBNP) in these patients. The aim of this study is to assess (1) the association between SS and NT-proBNP and (2) prognostic value of NT-proBNP predicting major adverse cardiac events (MACEs).

Methods: Between June 2006 and December 2012, 283 patients (209 men; mean age = 64.7±10.7 year-old) underwent unprotected LM PCI were analyzed in this study. The mean follow-up duration was 870±744 days.

Results: Log-transformed NT-proBNP levels was significantly higher in patients with higher SS (p for trend = 0.014) and complex LM disease (p for trend = 0.001). During the follow-up, 62 (21.9%) MACEs and 20 (7.1%) deaths occurred. Log NT-proBNP level was significantly higher in patient with MACES (6.50±2.26 versus 5.57±1.51, p = 0.003). A multivariate analysis revealed that DM as a strong independent predictor of stroke (HR = 3.09; 95% CI 1.52-6.29, p = 0.001). Between Jan 2004 and Dec 2010, 1,528 consecutive pts underwent LM PCI on long-term ischemic outcomes. We sought to compare the impact of the presence of DM at baseline among pts of stroke, TVR and TLR at 6-year follow-up.

Conclusion: In patients underwent unprotected LM PCI, NT-proBNP was associated with SS and was an independent prognostic factors for clinical outcome, particularly in high-risk patients.

Impact of Diabetes Status on Long-term (6 Years) Outcomes After Percutaneous Coronary Intervention of Left Main Disease: Result from a Real World Experience of 1,538 Consecutive Patients

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Methods: Data from all consecutive patients from a single center were prospectively collected. Pts were stratiﬁed according to the presence or absence of DM at baseline. Coronary angiograms were analyzed by an independent angiographic core laboratory and all events adjudicated by an independent clinical events committee. Adverse ischemic outcomes were compared between the 2 groups up to 6-year follow-up.

Results: Between Jan 2004 and Dec 2010, 1,528 consecutive pts underwent LM PCI. DM was present in 369 (24.1%) Pts with DM were more likely to have increased weight, prior MI, hypertension, dyslipidemia and prior stroke. Angiographically, DM pts presented more frequently with 3-vessel-disease, 1,1,1 medina bifurcation and higher baseline SYNTAX score. Despite having more lesions treated and more stents implanted, DM pts had higher residual SYNTAX score after revascularization. One-year dual antiplatelet therapy compliance rates were high among the complete cohort (95.3%) and similar between both groups. At 6-year follow-up, no differences were seen in rates of all-cause death (6.0% vs. 4.7%, p = 0.36) and definite/probable stent thrombosis (ST; 1.6% vs. 1.7%, p = 0.90) between groups. However, DM pts had a higher rate of target lesion revascularization (TLR; 8.4% vs. 4.4%, p = 0.005), target vessel revascularization (TVR; 13.6% vs. 8.1%, p = 0.003), and stroke (4.9% vs. 1.3%, p = 0.002). By multivariate analysis, DM was identified as a strong independent predictor of stroke (HR = 3.09; 95% CI 1.52-6.29, p = 0.002), TLR (HR = 2.10; 95% CI 1.30-3.38, p=0.002) and TVR (HR = 1.66; 95% CI 1.15-2.39, p = 0.006).

Conclusion: Among this large series of consecutive pts undergoing LM PCI, DM was not associated with an increase in death or ST, but was independently predictive of stroke, TLR at 6-year follow-up.