MYOCARDIAL ISCHEMIA AND INFARCTION

SYNTAX SCORE AND TYPE OF STENT CAN PREDICT THE MID TERM OUTCOME AFTER PRIMARY PERCUTANEOUS CORONARY INTERVENTION IN ACUTE ST-ELEVATION MYOCARDIAL INFARCTION

ACC Poster Contributions
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Background: Percutaneous coronary intervention (PCI) has been shown to be the best reperfusion therapy for acute myocardial infarction with ST-elevation (STEMI). Limited data are available regarding the safety of drug-eluting stents (DES) in the setting of STEMI. Moreover, the predictive value of the SYNTAX score in the mid-term follow-up has not been investigated. We assessed the role of DES and the SYNTAX score in the outcome of patients with STEMI treated with primary PCI.

Methods: We included all the patients who presented or were referred to our hospital with STEMI and underwent primary PCI over a 24-month period from August 2008 to August 2010. Patients' clinical and angiographic data were retrospectively collected and patients were followed up by phone interview. Technical details of the primary PCI, including the type of stents implanted and Syntax score were recorded. Target lesion failure (TLF) was defined as the composite of cardiac death, myocardial infarction (unless documented to arise from a non-treated coronary artery) and clinically driven repeat revascularization of the treated target lesion.

Results: Two hundred fifty two patients, 155 male and 97 women, with a mean age of 61.88±12.94 yrs underwent primary PCI during this period. Two of the patients died during hospitalization due to cardiogenic shock. The culprit lesion of the remaining 250 patients was treated either with DES (79.6%), or with BMS (20.4%). Everolimus was implanted in 192 patients (76.8%) and zotarolimus in 7 patients (2.12%). During a mean follow up of 13.01±6.32 months, no death and no acute thrombosis was recorded. Two patients experienced subacute thrombosis during hospitalization and were treated successfully with PCI. Multivariate analysis showed that patients treated with BMS were more prone to have TLF compared to those treated with DES, (11.62% vs 1.03%, p<0.001). Patients with Syntax score above 10 had increased risk for TLF compared to those with Syntax score below 10 (83.33% vs 4.09%, p<0.001).

Conclusion: The type of stent used in the primary percutaneous coronary intervention as well as the syntax score, can predict the mid-term outcome of the patients regarding the need for repeat revascularization.