STAGED PERCUTANEOUS CORONARY INTERVENTION IN THE SYNTAX STUDY: THREE-YEAR OUTCOMES

i2 Poster Contributions
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Background: The SYNTAX trial compared percutaneous coronary intervention (PCI) with TAXUS Express stents to coronary bypass graft surgery for the treatment of de novo 3 vessel and/or left main coronary disease. Staged PCI procedures occurred in 14% of PCI randomized patients. We have analyzed patient characteristics and 3 year outcomes after a staged PCI strategy compared to single session PCI.

Methods: SYNTAX is a prospective, multinational, randomized clinical trial with nested registries. A total of 1,800 patients were randomized (PCI N=903, CABG N=897) at 85 US and European sites. Staged procedures were allowed within 72h or, if renal insufficiency or contrast-induced nephropathy occurred, within 14d (mean 9.8 ± 18.1d post index procedure). Staged procedures were adjudicated by a Clinical Events Committee and differentiated from repeat interventions on initially targeted lesions.

Results: A total of 125 PCI (14%) patients underwent staged PCI. These patients had greater disease severity and/or required a more complex procedure compared to PCI patients treated with a single procedure. Most often, staged revascularization was employed due to excessive contrast volume, long fluoroscopic time or was planned in advance, for example, due to the medical status of the patient. MACCE was significantly increased in staged PCI patients compared to non-staged patients (37% vs 27%, P=0.01) as was the composite of death/stroke/myocardial infarction (22% vs 13%, P=0.008). Repeat revascularization was the greatest contributor to MACCE in patients with and without staged procedures (26.3% and 18.6%) and was significantly increased after a staged index procedure (P=0.02). The incidence of postprocedure stent thrombosis was also increased after staged procedures (8.1% vs 3.5%, P=0.01). Further analysis including a multivariate predictor analysis will be available at the time of the presentation.

Conclusions: There is a significantly higher incidence of major cardiac events in patients undergoing staged PCI over the first 3 years of follow-up. However, the patients who received staged procedures had more comorbidities and more diffuse disease compared to the patients without staged procedures.