BACKGROUND: Primary angioplasty is the best reperfusion treatment in ST-elevated myocardial infarction. The prevalence of very elderly patients (>75 years) undergoing primary angioplasty is progressively increasing as population is ageing. The benefit of the new generation drug-eluting stents over bare metal stents in terms of safety and efficacy is unknown for this important subgroup of patients in this setting.

METHODS: Retrospective consecutive registry conducted in 31 centers of patients >75 years with ST elevation myocardial infarction undergoing primary angioplasty.

RESULTS: A total of 3,126 pts have been included, 2,132 (68.2%) treated with BMS and 994 (31.8%) treated with new generation DES. After exclusion of patients presenting with cardiogenic shock or requiring cardiac surgery for mechanical complications (14%) a propensity score matching was performed yielding two comparable groups of 580 patients each with well-balanced baseline clinical and angiographic characteristics. Outcomes at 12 months were: cardiac death and MI 10.2% with BMS and 5.2% with DES (P=0.01), TLR was 3.8% with BMS and 1.5% with DES (P=0.04), definite or probable thrombosis 4.3% with BMS and 2.4% with DES (P=0.06), definite thrombosis 3.7% with BMS and 1.3% with DES (P=0.03) and bleeding BARC >2.0.7% with BMS and 1.2% with DES (P=0.3).

CONCLUSIONS: In this registry of patients over 75 years undergoing primary angioplasty, most were treated with BMS. After propensity score matching clinical outcomes were significantly better in those treated with new DES without significant increase in severe bleeding events in follow up.

CATEGORIES CORONARY: Stents: Drug-Eluting

KEYWORDS: Acute myocardial infarction, drug-eluting stent, elderly

TCT-559

Simple Versus Complex Stenting in Unprotected Left Bifurcation

Coronary Intervention: A Comprehensive Meta-analysis

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BACKGROUND: Percutaneous intervention of distal bifurcation unprotected left main coronary arteries (UPLMCA) are technically demanding with less favorable outcomes. The optimal treatment strategy to improve long-term outcomes is uncertain.

METHODS: Studies comparing simple approach (provisional stenting) versus complex stenting (elective two stent technique) were considered for inclusion. A search strategy using Medline, Embase, Cochrane database and the proceedings of the international meetings were included. Information about study design, inclusion criteria and sample size characteristics were extracted. Meta-analysis of pooled event rates was compared between these two stenting approaches.

RESULTS: 16 studies including 5978 patients who were treated with simple versus complex bifurcation stenting for UPLMCA bifurcations were analyzed. There were no differences in the rates of myocardial infarction (OR 0.81, CI 0.51-0.42), stent thrombosis (OR 0.8, CI 0.2-1.7), target vessel revascularization (OR 0.4, CI 0.6-2.7) or mortality (OR 0.92, CI 0.3-2.8) between simple versus complex stenting approaches at 1 year. However, at 5 years of follow-up there was a significant difference in the rates of target vessel revascularization (OR 0.4, CI 0.3-0.7, P=0.001) favoring the simple approach. There was no difference in the mortality (OR 0.75, CI 0.75-1.0), stent thrombosis (OR 0.83, 0.32-2.1) or myocardial infarction (OR 1.16, CI 0.71-1.7) using either approach at 5 years of follow-up.

CONCLUSIONS: Percutaneous intervention for UPLMCA should favor a simple approach over complex approach to optimize long-term outcomes.

CATEGORIES CORONARY: Stents: Drug-Eluting

KEYWORDS: Left main bifurcation, left main coronary artery, PCI - Percutaneous Coronary Intervention

TCT-559

Long-term Clinical and Angiographic Impact of Stent Fracture on Second Generation Drug-eluting Stent Implantation: Comparison between Xience Everolimus- and Nobori Biolimus-eluting Stents

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BACKGROUND: Stent fracture (SF) after drug-eluting stent implantation has been reported to be associated with in-stent restenosis (ISR),