TOP TEN

CORONARY-Chronic Total Occlusion

CRT-138

Native Coronary Artery Patency Following Coronary Artery Bypass Surgery

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Background: In contrast to the large body of information regarding graft patency, data regarding atherosclerosis progression and vessel patency in surgically bypassed native coronary arteries are less clear. We aimed to determine native coronary artery patency one year after CABG, and to identify clinical and angiographic predictors for developing a chronic total occlusion (CTO).
Methods: Included in our study were 388 patients who underwent 1-year follow-up angiography as part of the multi-centre Radial Artery Patency Study (RAPS). Angiograms were reviewed for native coronary artery patency in an independent blinded manner.
Results: In the pre-operative angiogram, CTO of at least one native coronary vessel was demonstrated in 240 (61.9%) patients having 305 occluded vessels. At 1 year post CABG, at least 1 *new* native coronary artery CTO occurred in 169 (43.6%) patients. In 7.5% of patients, the native artery and the graft supplying that territory were both occluded. A new CTO was almost five times more likely to occur in coronary vessels with a pre-operative proximal stenosis >90% compared to vessels with proximal stenosis <90% (45.5% versus 9.5% respectively, p<0.001). Patients with a new CTO had significantly more baseline CCS class 4 angina, and higher creatinine levels compared to patients without a new CTO. A new CTO was less likely to occur in the LAD (18.4%), supplied by the LITA. When comparing radial artery and SVGs, neither the type of graft nor graft patency had any association with native coronary artery occlusion.
Conclusions: CTO of surgically bypassed coronary arteries 1 year following CABG is extremely common, suggesting accelerated progression of atherosclerosis in these vessels.

CORONARY-Coronary

CRT-152

Nine-Month Primary Endpoint Results of the Omega Study: Clinical Outcomes After Implantation of a Modern Platinum Chromium Bare Metal Stent

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Background: Bare metal stents (BMS) have similar rates of death and myocardial infarction (MI) to drug-eluting stents (DES). DES lower rates of repeat revascularization compared to BMS, but may have higher rates of late and very late stent thrombosis (ST). This is potentially due to impaired endothelialization which requires longer dual anti-platelet therapy (DAPT) compared with BMS.
Methods: The OMEGA study is a prospective, multicenter, single-arm study enrolling 328 patients at 37 investigative sites in the US and EU. Patients received the OMEGA stent (also known as REBEL; a bare platinum chromium Element stent) for the treatment of *de novo* native coronary artery lesions (≤28 mm long; diameter ≥2.25 mm to ≤4.50 mm). The primary endpoint was 9-month target lesion failure (TLF: cardiac death, target vessel-related MI, target lesion revascularization [TLR]) compared to a prespecified performance goal (PG) based on prior generation BMS. All major cardiac events were independently adjudicated. DAPT was required for a minimum of 1 month post procedure.
Results: In the OMEGA study, the mean age was 65; 17% had diabetes mellitus. Approximately 29% had previous PCI, 5% had previous CABG (Table). The primary endpoint was met; the 9 month TLF rate was 11.5% and the upper 1-sided 95% confidence bound of 14.84% was less than the prespecified PG of 21.2% (p<0.0001). Event rates were low including a ST rate of 0.6% at 9 months (Table). Through 9 months, the MI rate was 3.7% (12/326); all of the MIs were non-Q wave MIs most occurring within 1 day of the procedure (10/12).
Conclusion: Nine-month outcomes of OMEGA show a low rate of TLF, revascularization and ST events. This supports safety and efficacy of the novel, platinum chromium OMEGA/REBEL BMS for the treatment of coronary artery disease.

Baseline Clinical Characteristics			
Male, %	67.7% (222/328)	Stable Angina, %	49.7% (163/328)
Age, years	65.46±11.23 (328)	Unstable Angina, %	31.1% (102/328)
Diabetes*, %	17.4% (57/328)	Hyperlipidemia*, %	70.8% (230/324)
Smoking (ever), %	66.1% (211/319)	Hypertension*, %	75.0% (243/324)
History of Bleeding Disorder, %	2.5% (8/326)	Prior MI, %	29.0% (94/324)
History of TIA or CVA, %	7.7% (25/326)	Prior PCI, %	28.8% (94/326)
History of PVD, %	6.4% (21/326)	Prior CABG, %	4.6% (15/327)
Baseline Lesion Characteristics			
RVD, mm	2.77±0.53 (327)	% DS	67.41±11.34 (327)
MLD, mm	0.90±0.38 (327)	Lesion Length (mm)	12.49±5.15 (327)
9-Month Outcomes (Intent-to-treat)			
TLF	11.4% (37/324)	TVR	8.6% (28/326)
Cardiac Death	1.2% (4/326)	TLR	7.4% (24/326)
MI**	3.7% (12/326)	Stent Thrombosis (ARC ST; Definite/Probable)	0.6% (2/320)

TIA: Transient Ischemic Attack; CVA: Cerebrovascular Accident; PVD: peripheral vascular disease; RVD: Reference Vessel Diameter; MLD: Minimum Lumen Diameter; %DS: Percent Diameter Stenosis; PCI: Percutaneous Coronary Intervention; CABG: Coronary Artery Bypass Graft surgery; TLF: cardiac death, myocardial infarction (MI) related to the target vessel, and target lesion revascularization (TLR); *Requiring medication; **All were non-Q-Wave MI defined as elevation of post-procedure CK-MB levels to >3.0 times ULN without new Q-waves.