Six months and One Year Clinical Outcomes After Implantation of Prokinetic BMS in Patients with Acute Coronary Syndrome

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Background: Stent composition, design and coating are paramount in determining clinical outcomes. The Prokinetic CoCr stent has 0.0024" thin struts, a double helix design and silicon carbide coating. We hypothesized that this stents` characteristics would be translated into favorable clinical results in high risk patients.
Aims: To evaluate the Prokinetic bare metal stent implanted in patients presenting with acute coronary syndrome.
Methods: We retrospectively studied all patients with acute coronary syndrome who underwent PCI and implanted with a Prokinetic stent between 30.10.2005 and 30.12.2007. Excluded were patients presented with cardiogenic shock, underwent PCI to LM, or had additional stents implanted other than Prokinetic. Six months follow up information was obtained by phone.
Results: Total of 143 Prokinetic stents were implanted in 119 patients (age 64±12.9 years, 78.2% men). Risk factors included hypertension (52.9%), diabetes (29.4%), hypercholesterolemia (68.1%), smoking (33.6%), and positive family history (26.9%). Thirty one percent of patients had unstable angina, 36% had non ST elevation myocardial infarction (NSTEMI) and 32% had ST elevation myocardial infarction (STEMI). Fifty eight percent of the lesions were categorized as B2 and 28% as C type. Stent length was 16.3±6.1 (8-45) and stent diameter was 2.8±0.5 (2-5) mm.
Procedural success was achieved in 99.3 % of lesions. Clinical success was achieved in 97.5% of 119 patients (2 patients had slow, and 1 patient had no coronary flow). Major adverse cardiac events (MACE) rate was 8.5% and 11.1% for 6 months and one year follow-up, respectively. The incidence of cardiac death, MI and TLR at 180 days was 1.9%, 3.4% and 4.3% respectively – exceptionally low figures in this group of patients. The incidence of cardiac death, MI and TLR at one year follow-up was 3.2%, 4.3%, 5.2% respectively.
Conclusions: The clinical outcomes at 6 and 12 months after Prokinetic stent implantation are excellent and may be attributable to its unique combination of composition, design and coating.