

Coronary Bifurcation Lesion – Predictors for Stent Thrombosis

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Background: Coronary bifurcation lesions angioplasty are still related to a higher incidence of periprocedural complications, need for reinterventions, stent thrombosis, and adverse clinical events.

Objective: To identify factors associated with increased risk for stent thrombosis in patients with coronary bifurcation lesion undergoing PCI.

Methods: 505 patients underwent bifurcation lesions angioplasty between 2001 and november 2007 of them 77% male, 16 patients were presented with stent thrombosis.

We analyzed the patient's clinical data and procedural parameter regarding the lesion location, the use of one or two stents, type of stent , final kissing balloon and pts outcomes at one year.

Results: Mean age 63±12 years, 156(31%) diabetic mellitus, 74% had acute coronary syndrome on presentation. Lesion location: 79(55%) LAD/Diagonal artery, 31(6%) in the distal Left Main artery. Multi-vessel disease was present in 339(71%) patients. BMS and DES were use in these patients with 23% Drug Eluting Stent . clinical presentation myocardial infarction was presented in 43 pts (8.5%) one pts developed ST , ACS pts was the presentation of 371(73%) of which 8 pts had ST . Two stents were implanted in 207(41%) of cases, DES at main branch(MB) 290(54.4%)and DES side branch (SB) in 104(20%). Bifurcation lesions Final kissing balloon were preformed in 47%. Anti GP IIb/IIIa GP drug used in 326(65%). At one year follow-up, 16 patients (3.2%) had angiographic stent thrombosis. Most cases of ST were seen at first month 14 pts(2.8%)-While 6(1.2%) pts had ST during hospitalization two pts had late ST. Factors correlated with stent thrombosis included: HTN and lesion length. The use of drug eluting stent in the main branch and final kissing balloon were correlate with lower risks for stent thrombosis (ST)

CONCLUSIONS Our results suggest that:1- DES implantation in bifurcation lesion do not increase the hazard of stent thrombosis compared to BMS. 2-Bifurcation stenting, when performed in patients with AMI/ACS, were not associated with an increased risk for ST. 3-final kissing balloon dilatation decreases ST risk.