

Drug Eluting Stenting of Bifurcation Lesions: A Systematic Approach Towards Stenting

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Background: Recent studies suggest that, independent of stenting strategy; excellent clinical and angiographic results were obtained with percutaneous treatment of de novo coronary artery bifurcation lesions with drug-eluting stents [DES]. A systematic coronary stenting approach for bifurcation lesion using DES is needed. A strategy of using two DES may be preferred if the side branch is of adequate size and heavily diseased, while in other cases a 'simpler' approach of stenting the main vessel only, with optional (provisional) stenting of the side branch may be appropriate.

Objective: The strategy of systematic coronary stenting in bifurcation lesions was evaluated in a large single-center observational study during a two-year inclusion period.

Methods & Results: The study included 293 patients with a mean age of 63±12 years, 77% male, and 76% with acute coronary syndromes. The LAD/diagonal bifurcation was involved in 62% of cases. Anti GP 2b/3a drugs were used in 65% of cases. In 58% of cases sirolimus-eluting stents [Cypher] were used. Initial two stents strategy was used in 97 pts [33%], while in 196 pts the strategy was stenting of the main branch with provisional stenting of the side branch, of whom 7 crossed to side branch stenting also due to procedural indications [dissection or unsatisfactory angiographic results].

| | Six months [n=293] | One year [n=273] | Two years [n=178] |
|---------------------------|--------------------|------------------|-------------------|
| Death | 3-1% | 8-2.9% | 11-6.2% |
| MI | 11-3.8% | 12-4.4% | 14-7.7% |
| Definite Stent thrombosis | 3-1% | 3-1.1% | 3-1.7% |
| TVR | 14-4.8% | 20-7.3% | 27-14.5% |
| CABG | 9-3.1% | 10-3.6% | 12-6.6% |
| MACE | 25-8.5% | 37-13.6% | 48-25.5% |

Conclusions: Our results would indicate that a systematic approach towards PCI in bifurcation lesions with careful attention to procedural technique and using DES is associated with favorable long-term clinical results.