

randomized trials while a certain practice at variance with conclusions from randomized trials may be explained by more optimal conventional PTCA made possible by the stent option.

1032-81 Stent Use in Internal Mammary Graft Angioplasty - A 4-Year Experience

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Background: Internal mammary artery grafts have increasingly been used in the treatment of coronary artery disease. Although IMA graft angioplasty has become routine in most catheterization centers, documentation and efficacy of stents in IMA graft stenoses has not been reported.

Methods: IMA graft angioplasty was performed in 145 pts at our institution between January 1994 and May 1997. Stents were deployed in 28 (19.3%). Of these, 5 had previous angioplasty at the same site. The decision to deploy a stent was made by the operator before dilatation of the vessel in 15 pts (53%); only 2 stents (14.2%) were placed due to unsatisfactory results of the balloon angioplasty and 1 (3.7%) stent was needed due to complications of balloon angioplasty. Indication for stent placement was not apparent in 8 pts. Lesion location within the IMA was known in 118 pts. Only 10 (36%) were deployed in an anastomotic site even though such stenoses accounted for 72% of all treated lesions. However, mean age of the graft in the two populations was similar. Immediate and long-term outcome (6 months to 3 years) in these pts is shown below. No stent pt died, had acute myocardial infarction or emergent CABG due to the procedure. The 2 deaths in the stent group occurred within one month from the procedure. Both had severe coronary disease. One was in cardiogenic shock and had redo CABG one week later.

| | n | Angio success % | Late MI % | Late CABG | Repeat PTCA | Late death |
|----------|----|-----------------|-----------|-----------|-------------|------------|
| No-stent | 89 | 82 | 8.1 | 0 | 27.5 | 4 (3.9%) |
| Stent | 24 | 96.4 | 7.4 | 1 | 28.6 | 2 (9.5%) |

Conclusion: Stent use in IMA graft angioplasty in properly selected pts is safe and efficacious.

1032-82 Procedural Results and Late Clinical Outcomes Following Multivessel Coronary Stenting

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Background: Conventional PTCA in multivessel coronary disease has been limited by higher rate of restenosis and recurrent angina compared to single-vessel coronary interventions.

Methods: We evaluated procedural success, major in-hospital complications, repeat revascularization and clinical outcomes @ (1 year) in 2,377 consecutive patients (3,552 native coronary lesions) who underwent one-time procedure of multivessel (94% with two vessels stenting) vs. single-vessel stenting. Repeat revascularization is reported @ 1 year per-patient and includes all target lesion and target vessel revascularizations for single and multiple vessel disease.

Results: (Table)

| # Vessels (# Patients) | Single (1958) | Multi (419) | P |
|--------------------------------|---------------|-------------|----------------|
| Procedure success (%) | 97.1 | 96.2 | 0.36 |
| Hospital death/MI/CABG (%) | 0.6/0.7/1.6 | 0.5/0.9/0.5 | 0.31/0.65/0.08 |
| Repeat revascularization (%) | 20.0 | 21.6 | 0.56 |
| Death/MI (1 yr) (%) | 1.5/1.3 | 0.7/0 | 0.20/0.02 |
| Event-free survival (1 yr) (%) | 75.9 | 77.9 | 0.81 |

Conclusions: Unlike previous PTCA experiences, multivessel coronary stenting does not confer incremental procedural complications or repeat revascularization risk compared with single vessel treatment. Thus, stenting may be the preferred therapeutic strategy in patients with multivessel coronary disease.

1032-83 Risk for Procedural Failure of Coronary Stent Placement

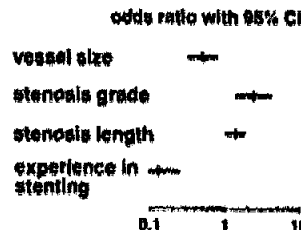
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Background: The utilization of coronary stents has been growing continuously with broadening indications. Although stent placement is technically more difficult than standard PTCA, it may be achieved with high success

rates. However, a comprehensive analysis of the risk of procedural failure or associated adverse events is not available.

Methods: We analyzed all 2694 stenting procedures in the last 5 years performed at our institution (>95% hand-mounted slotted-tube stents).

Results: Procedural success (placement at target position with <30% residual stenosis) was achieved in 3750 of 3815 lesions (98.2%). Failure was associated with high complication rates: death, 8.2% compared to 0.9% after success (odds ratio, 10.5, 95%-confidence interval (CI), 3.0-29.3), death or myocardial infarction (MI), 14.8 vs. 2.0% (OR 8.4, CI, 3.6-18.3), death, MI or target lesion revascularization (PTCA or CABG), 42.6 vs. 3.6% (OR, 19.9; CI, 11.0-35.3). The results of multiple logistic regression analysis are shown on the left; the most significant factor was the institutional experience in stent placement technique; 15 additional factors entered into the analysis were not significant, including target vessel, ACC/AHA lesion characteristics or stents placed in acute MI.



Conclusions: The rate of procedural success is high. After failure however, a high rate of adverse cardiac events is observed. The data on risk factors underscore the need for optimization of technical equipment as well as operational skills.

1032-84 Coronary Stenting With Different Indications

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The purpose of this study was to determine medium-term clinical and angiographic results in patients having coronary stent deployment for various indications. The literature shows diversified results with different clinical indications. We analyzed the results of coronary stent implantation for the following indications: elective therapy, for restenosis after angioplasty (Rest), for a suboptimal result after angioplasty (Subopt R), for acute or threatened vessel closure (A&TC), and after successful recanalization of a chronic total occlusion (CTO). The intravascular ultrasound and high pressure final balloon inflations were used in majority of cases. Clinical follow-up was available at 22 ± 16 months.

Results:

| Indications: | Elective | Rest | Subopt R | A&TC | CTO |
|-------------------|----------|------|----------|------|-----|
| #pts | 1026 | 205 | 232 | 181 | 262 |
| Success % | 99 | 96 | 99 | 93 | 96 |
| Multiple stents | 31% | 28% | 30% | 52% | 50% |
| Stent per patient | 1.7 | 1.5 | 1.5 | 3.2* | 2.0 |
| Complications | 5% | 6% | 7% | 16% | 6% |
| SST | 1.8% | 1.7% | 1.4% | 1.1% | 1% |
| Restenosis | 25% | 26% | 25% | 37% | 33% |
| TLR | 16% | 16% | 18% | 20% | 21% |
| MACE | 35% | 31% | 38% | 50% | 38% |

* p < 0.01 comp. to the lowest value; SST = subacute stent thrombosis

Conclusions: The use of coronary stents is safe and yields similar acute results with different indications, except for the A&TC. The restenosis rate remains the major problem, in particular when stents are implanted for acute or threatened closure or following reopening a CTO. At two years MACE occurred in more than 1/3 of the patients independently of the stent indication.

1032-85 Risk Factor Analysis for Stent Occlusion Within the First Month After Successful Coronary Stent Placement

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Background: Technical refinements and improvements in the post-procedural antithrombotic regimen have reduced the rate of stent occlusion (OCCL). Still, the rate of OCCL may vary substantially, depending on differences in patient and lesion characteristics. We analyzed the risk of OCCL for all 2833 successful stenting procedures performed within the last 5 years.