major neurologic complication. GCS on days 2 and 3 were not predictive of mortality in contrast to GCS at day 4 (OR for mortality of a GCS of 5 or less, 5.25; 95% CI, 2.5 to 5.2; P = 0.003). Other predictive factors were: 1) a long time interval from OHCA to return of spontaneous circulation (OR for mortality of 1.3 per minute of delay; 95% CI, 1.2 to 1.5; P = 0.003) 2) absence of the need for inotropic drugs during transportation to the hospital (OR for survival, 3.5; 95% CI 1.2 to 12.9; P = 0.03) 3) successful PTCA (OR for survival, 5.3; 95% CI, 1.1 to 12; P = 0.004).

Conclusion: A low GCS score at admission does not indicate a hopeless prognosis. Therefore decisions about emergency procedures such as coronary angiography and PTCA should be taken regardless of the patient's neurological status at admission.

1032 Stents: Indications and Procedural Considerations

Monday, March 30, 1998, Noon–2:00 p.m.
Georgia World Congress Center, West Exhibit Hall Level
Presentation Hour: Noon–1:00 p.m.

1032-77 Stent Versus Optimal Balloon Angioplasty in Restenotic Lesions: Is there a Difference?

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Recent studies suggest that intracoronary stenting (ST) may significantly improve long-term clinical outcomes in restenotic lesions. From 1/95 to 7/97, we compared 609 patients (mean age 64; 36.3% female) who underwent target lesion revascularization (TLR) by percutaneous intervention: optimal balloon angioplasty (PTCA, N = 466) or ST (N = 143). High-risk (TIMI criteria) subsets included: age >70 years: 35%; diabetes: 28.4%; prior MI: 47.2%; prior CABG: 24.2%; multivessel disease: 17.6%; EF <0.40: 20%; cardiogenic shock: 9.9%. The LAD was the target vessel in 42%; 12% were in vein grafts; 49.8% were ostial/proximal lesions. Stented vessels were ≥3.0 mm; STs were deployed using high pressure inflations. All patients received aspirin ± ticlopidine following the procedure.

Results: Procedural success rates were comparable (PTCA: 95.9%; ST 97.9%; *P* = 0.19). Urgent CABG rate was 0.4% with PTCA and 1.4% with ST (*P* = 0.3), with 1 (0.2%) death in the PTCA group (*P* = 0.3). Mean hospital stay for all patients was 2.4 days. There was no subacute ST thrombosis.

	Follow-up (95%, mean 7.74 ± 4.48 mos)				
	Re-MI/Isch	Re-PTCA	CABG	Death	Event-free
PTCA	1 (0.2%)	39 (8.4%)	20 (4.3%)	5 (1.1%)	82.6%
ST	Nil	8 (5.6%)	1 (0.7%)	1 (0.7%)	90.9%
P value	0.92	0.03*	0.06	0.64	0.04*

Conclusions: (1) In-hospital outcomes are similar in restenotic lesions treated with PTCA or ST, even in the presence of demographic and anatomic high-risk variables. (2) At 1-year follow-up, TLR-PTCA rates are *significantly* lower and event-free survival is *significantly* better in the stent group than in patients treated with optimal PTCA. (3) Our data suggests that routine stenting of restenotic lesions should be considered, as long-term outcomes appear superior to even optimal balloon angioplasty.

1032-78 Evidence of Equivalent Clinical Outcome After Ideal Angioplasty Results With or Without Stent Use

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Clinical outcomes are known to be improved with use of coronary stents. To assess whether clinical outcomes are improved similarly when "stent-like" results (≤20% residual stenosis) are achieved without stent use, we characterized pts treated with stents who had residual stenosis of <20% by visual assessment (Gr 1). Two pt cohorts were matched with these pts:Gr 2 (ideal PTCA results) = pts with residual stenosis of ≤20% without stent use; Gr3 (typical PTCA result) = pts with residual stenosis of 21–30% without stent use. Pts were matched for gender, age, recent MI and mutivessel disease. A total of 132 pts were identified (44 in each group) for whom follow-up data were available for one year after treatment. Unmatched characteristics were similar between groups except Gr 1 had more congestive heart failure (11.4%, 2.3% and 6.8% for Grs 1, 2 and 3, p = 0.05) and fewer cigarette smokers (9.1%, 20.5%, 29.5%, p = 0.01). At one year, there were 2 deaths in Grs 1 and 3, 1 death in Gr 2. The incidence of death, MI, severe angina was the same for Grs 1 and 2 but greater for Gr 3 (log-rank test p = 0.022). Freedom from death, MI, severe angina, repeat PTCA or CABG was 68% for Grs 1 and 2 and 50% for Gr 3 at 1 year (p = 0.12).

Conclusions: Important clinical adverse event rates appear similar following PTCA with or without stent use providing a residual stenosis of ≤20% is achieved. These data suggest that *elective* coronary stent use may be unnecessary in pts with ideal PTCA results.

1032-79 Differences in Vessel Wall Passivation Between PTCA and Stent

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Platelets (PLT) and neutrophils (PMN) are involved in platelet-thrombus formation after PTCA and stenting. We have shown that between 1 and 24 hours significant PMN adhesion and PLT deposition occur with stenting. However, limited data is available comparing vessel wall passivation to PLT and PMN after PTCA and stenting. In this study, we evaluated the *in vivo* vessel wall reactivity in a porcine coronary artery model.

Methods: Animals (n = 16) were pretreated with ASA and given heparin to achieve an ACT >300 seconds. PTCA and stent implantation were performed in each coronary artery (RCA, LAD, LCx). Autologous PLT and PMN, radiolabeled with ^{51}Cr and ^{111}In respectively, were reinjected before the procedure in groups 1 and 2 or 23 hours post-procedure in group 3. Animals were euthanized 1 h Gr 1) or 24 h (Gr 2 and 3) after the procedure. The hearts were perfusion-fixed *in vivo*. The stented and dilated arterial segments were harvested for gamma counting.

Results:

	PTCA (n)	STENT (n)	P
PLT X 10^3/cm^2			
Gr 1 (1 hour)	3.15 ± 0.62 (15)	1.34 ± 0.53 (10)	0.11
Gr 2 (24 hours)	0.7 ± 0.44* (7)	4.36 ± 0.51** (10)	0.001
Gr 3 (24th hour)	0.43 ± 0.09** (14)	0.61 ± 0.08 (7)	0.215
PMN X 10^5/cm^2			
Gr 1 (1 hour)	4.46 ± 1.02 (15)	5.89 ± 1.05 (10)	0.356
Gr 2 (24 hours)	71.27 ± 33.36** (7)	268.55 ± 70.37** (10)	0.04
Gr 3 (24th hour)	0.69 ± 0.17** (14)	2.25 ± 0.44** (7)	0.001

All values means ± SEM; t-test analysis; * p = 0.06 vs 1 h, ** p < 0.05 vs 1 h.

Conclusions: Vessel wall passivation to PLT occurs within 24 hours after stenting and PTCA. However, compare to PTCA, stented vessels appear to remain significantly more attractive to PMN. Until physiological wall passivation occurs, PLT-PMN activation and adhesion may have important clinical implications after PTCA and stenting.

1032-80 Indications for Intracoronary Stent Placement: The European View Point

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Background and Purpose: In Europe, written, official guidelines on indications for stent placement are not available. We therefore sought to appreciate the opinion of the European interventional cardiologist on these indications.

Methods: In April 1997, a questionnaire was sent to the members of the Working Group on Coronary Circulation of the European Society of Cardiology who had interventional cardiology as a main activity. A total of 165 questionnaires was analyzed.

Results: For the treatment of acute or threatened closure, 42% considered a type C dissection (or more) as an indication, 22% any form of dissection while 15% required an impaired TIMI flow as a formal indication for stenting. A suboptimal result after PTCA considered as a stent indication was defined as a residual stenosis of ≤50% by 25% and of ≤30% by 66%. 45% found physiological measurements during intervention for this indication useful, 55% not. For primary restenosis prevention, only 2% stented unconditionally Benestent-STRESS like lesions, 44% leave stent-like balloon results alone and 73% think that other stents (than the Palmaz-Schatz) may be used for this indication. 30% unconditionally stent restenotic lesions, 64% only in case of suboptimal PTCA results. Amongst other indications, 86% stent chronic total occlusions and 79% vein graft lesions. 59% consider that stents should be used liberally during primary PTCA for acute myocardial infarction and 64% use stents for aorto-coronary ostial lesions. Heparin coating causes most controversy: 40% consider it useful, 44% not and 16% has no opinion. The strongest contraindication for stenting is vessel size <2 mm for 55%. Answers vary considerably amongst countries.

Conclusions: European interventional cardiologists have integrated current literature on stenting in their daily practice. The most appreciated indication (threatened closure and suboptmal PTCA results) is not supported by

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