

**819-4 Results of Coronary Stenting in Patients Aged 75 Years or Older**

J. DeGregorio, L. Finzi, Y. Kobayashi, B. Reimers, L. DiFrancosco, C. DiMario, A. Colombo. *Centro Cuore Columbus, Milan, Italy*

To assess the effects of coronary stent implantation in the elderly, the results of coronary stenting performed in 137 consecutive patients aged  $\geq 75$  years were compared to the results obtained in a consecutive cohort of 2551 younger patients. Procedural success was defined as any patient who had revascularization resulting in  $< 30\%$  residual stenosis without death, MI, or emergency CABG. All patients were treated with antiplatelet therapy; none received oral anticoagulation. Follow-up quantitative angiography was obtained after 6 months or earlier when clinically indicated.

Results are as follows:

	$\geq 75$ y	$< 75$ y		$\geq 75$ y	$< 75$ y
Mean age	78 $\pm$ 0	69 $\pm$ 3	CompRevas%	31	50
Risk factors*	37.1	44.4	Success %	90	93
LVEF%	54	50	Acute thromb %	0.7	0.5
Unstabl ang <sup>a</sup>	47	20	SubAc thromb <sup>b</sup>	2.3	0.0
3 vasa dz <sup>c</sup>	40	24	MI %	2.9	1.7
Calcif. leas <sup>d</sup>	30	13	EmerCABG <sup>e</sup>	3.7	1.4
Net diam (mm)	3.1 $\pm$ 0.6	3.1 $\pm$ 0.5	Hosp Death <sup>f</sup>	2.2	0.1
Les. l. ang (mm)	11.4 $\pm$ 0	11.1 $\pm$ 7	Bleed Comp <sup>g</sup>	2.2	1.6
MVS <sup>h</sup>	27	44	FUMLD <sup>i</sup>	2 $\pm$ 0.9	2 $\pm$ 0.8
Stents/lesion <sup>a</sup>	1.3	1.4	Restenosis <sup>j</sup>	47	28
MLD (mm) <sup>k</sup>	3.2 $\pm$ 0.5	3.1 $\pm$ 0.5	Focal rest <sup>l</sup>	54	58
Bell. size (mm)	3.6	3.7	Diffuse rest <sup>m</sup>	46	44
MIP (atm)	16.0	16.1	TLR <sup>n</sup>	20	10

\* P < 0.05; MVS multi-vessel stenting; MLD minimal lumen diameter; MIP maximal inflation pressure; TLR target lesion revascularization.

Conclusions: Despite improvements in stent technology and post procedural management, short term complications (death and CABG) and cardiac events during follow-up are higher in older patients. Further improvements are necessary to optimize the results in this high risk group.

**819-5 Coronary Stenting in Elderly Patients: Clinical and Angiographic Implications**

F. Alfonso, L. Azcona, R. Hernandez, A. Fernandez-Ortiz, J. Goicolea, J. Escaned, C. Bahuelos, C. Macaya. *San Carlos University Hospital, Madrid, Spain*

Background: Coronary stenting (ST) is currently being used in many patients (P) during coronary angioplasty (PTCA). However, the clinical and angiographic implications of ST in elderly P, an important subgroup of P undergoing PTCA, remain unknown.

Methods: Accordingly, the results of ST in 262 consecutive P  $\geq 65$  years (449 lesions with ST (Group I) (mean age 71  $\pm$  5 years) were compared with those obtained in 412 consecutive P < 65 years (689 lesions with ST) (Group II) (mean age 53  $\pm$  8 years).

Results: More P in Group I were female (25% vs 10%, p < 0.001), had hypertension (49% vs 42%, p < 0.05) and diabetes (25% vs 16%, p < 0.01). In addition, more P in Group I presented with unstable angina (77% vs 70%, p < 0.05), had a prior history of by-pass surgery (13% vs 5%, p < 0.001) or congestive heart failure (6% vs 2%, p < 0.01). Lesion distribution within the coronary tree was similar in both groups except for a higher number of lesions on vein grafts (9% vs 3%, p < 0.01) in Group I. Adverse lesion characteristics including calcified (18% vs 12%, p < 0.05), eccentric (90% vs 81%, p < 0.001), or B2-C lesions (73% vs 68%, p < 0.05) were more frequent in Group I. Complete revascularization was more frequently achieved in Group II (66% vs 53%, p < 0.05). Procedural success was similar in both groups (93% in Group I vs 95% in Group II, NS), but major complications (6.9% vs 3.8%, p < 0.05), including hospital mortality (4.8% vs 1.5%, p < 0.01), were higher in Group I. Vascular complications were also more frequent (5% vs 2%, p < 0.05) in Group I. On actuarial analysis event-free survival (death, myocardial infarction or repeat revascularization) at 12 months was similar (Mantel-Cox) in both groups (81% Group II vs 80% Group I, NS).

Conclusion: ST constitutes an attractive strategy for coronary interventions in the elderly. Although the adverse clinical and anatomic characteristics of these P determine a higher initial risk, the mid-term clinical outcome of P with successful procedures is similar to that obtained in younger P.

**819-6 Long Term Survival After Coronary Artery Bypass Grafting: A Coronary Artery Surgery Study (CASS) Registry Study**

W.O. Myers, E.H. Blackstone, K. Davis. *Marshfield Clinic, Marshfield, WI, University of Alabama, Birmingham, AL, USA*

Objectives: To show the force of clinical, anatomic and demographic traits on late survival of Coronary Artery Surgery Study (CASS) patients following coronary bypass (CABG) and introduce Hazard Function analysis to CASS survival data.

Methods: Patients were reached by mail survey with 94% response. By National Death Index, vital status was obtained in 99.7% (n = 8221) with a mean follow-up of 15 years. Cox proportional hazard and Blackstone Hazard Function regressions were used to assess effects of preoperative traits.

Results: Ninety percent of patients were alive at 5, 74% at 10 and 56% at 15 years. Of those age 65 and age 75 at operation, 74% and 59% were living at 10 years and 54% and 33% at 15 years (now age 80), survival exceeding the matched U.S. population. Hazard Function falls rapidly after CABG to 9 to 12 months, then rises, doubling by 15 years. Young patients, below age 35, had lower late survival. The time-segmented Cox model (divided at time suggested by the Hazard Function) identified traits showing predictive power early, throughout, and late. Female sex, small body surface, ischemic symptoms, and emergency status affected survival early. Heavier weight, infarct(s), diuretics, diabetes, smoking, left main and LAD stenosis, and use of vein grafts only, increased hazard late only.

Conclusions: There are still lessons from the CASS database. CABG in the elderly is supported by the long follow-up of our patients age 75 at operation. Time-segmented Cox analysis and Hazard Function analysis separate baseline variables into those which predict early mortality and those which predict long survival.

**820 New Understandings of Anticoagulation During Unstable Angina**

Monday, March 30, 1998, 2:00 p.m.-3:30 p.m.  
Georgia World Congress Center, Lecture Hall 2

**820-1 Heparin Dosing and Outcome in Acute Coronary Syndromes: The GUSTO-IIb Experience**

I.C. Gilchrist, C.B. Granger, T.D. Thompson, R.M. Califf. *Pennsylvania State University, Hershey, PA; The Duke Clinical Research Institute, Durham, NC, USA*

Background: Despite understanding several of the factors that determine heparin consumption, its dosing varies greatly among patients with acute coronary syndromes. Whether this is associated with patient outcome remains poorly understood.

Methods: Baseline demographics, 12-hour aPTT, weight-indexed heparin rate and 30-day outcome (death or reinfarction) were analyzed in 5335 patients treated with heparin in the GUSTO-IIb trial. Probability of outcome was determined based on the heparin rate and adjusted based on baseline characteristics, subgroup (ST elevated/depressed MI, or unstable angina), and aPTT results.

Results: Unadjusted relationship between weight-indexed heparin rate and 30-day outcomes are displayed in the table. A nadir of mortality was noted at 14 U/kg/h of heparin with increased mortality at higher and lower dosages. Adjusting for subgroup strengthens these effects. However, after adjustment for differences in baseline characteristics and the 12-hour aPTT, there appears to be no significant, independent weight-indexed heparin effect.

30-day Outcomes	$\chi^2$	P
Mortality	9.3	0.054
Reinfarction	0.26	0.610
Death or reinfarction	7.58	0.056

Conclusions: Heparin consumption is associated with outcome in acute coronary syndromes, but this effect appears to depend on baseline patient characteristics and aPTT levels.

MONDAY ORAL