

### Survival after Coronary Catheterization and Intervention in Nonagenarian Patients

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**Background:** The benefit and safety of an invasive strategy in very elderly pts with angina pectoris referred for coronary angiography is unclear.

**Methods:** We retrospectively searched the Lady Davis Carmel Medical Center cardiac catheterization database and identified 70 pts aged  $\geq 90$  yrs undergoing cardiac catheterization and/or coronary intervention during a 10 year period (1999-2009). Clinical characteristics and survival were analyzed.

**Results:** Mean pt age was  $92 \pm 2$  (range 90-98) yrs, 15 (22%) were female, 14 (20%) were diabetic and logistic Euroscore was  $26 \pm 18\%$  (range 7-79). Sixty-six (94%) had ACS, 22 (31%) had ST-elevation MI, 7 (10%) were in cardiogenic shock, intra-aortic balloon was inserted in 6 (9%), 4 (6%) required mechanical ventilation and 2 patients arrived at the catheterization laboratory in critical condition but died prior to catheterization. The remaining 4 (6%) underwent elective procedures for stable angina. Twenty-seven (40%) had triple-vessel disease and 15 (22%) had left main stenosis  $>50\%$ . Forty-nine pts (70%) received revascularization: 46 (66%) PCI, 3 (4%) coronary bypass surgery and 1 pt who underwent both procedures. Over 10 years of follow-up [median  $579 \pm 781$  days (range 0-2973)] 44 pts (63%) died. Total 1-week mortality was 10% and 1-month mortality was 14%. Pts surviving early period of risk had meaningful mid-term survival (graph).

**Conclusion:** In this retrospective single-center registry a strategy of aggressive coronary revascularization in a population of high-risk nonagenarian pts was feasible and associated with relatively low early mortality and meaningful mid-term survival. Advanced age in itself should not preclude catheterization and intervention in selected patients when these procedures are clinically indicated.

