DETERMINANTS OF MORTALITY WHEN PRIMARY LV FAILURE COMPLICATES ACUTE MYOCARDIAL INFARCTION

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SHOCK Trial Centers (26) register all patients with *suspected* cardiogenic shock (CS). 129 patients have been randomized in the trial; data from an additional 167 patients with shock due to primary LV failure who did not meet required clinical and/or hemodynamic criteria for CS were analyzed. The mean age of these ineligible patients (107 M and 60 F) was 67 $\pm$ 12 yrs, with anterior MI in 58%. Prior h/o: MI (38%), diabetes (35%), hypertension (47%), renal disease (7%), CHF (18%), CABG (6%), PTCA (6%), smoking (44%). CS developed 6.3 hrs after MI (median; range 0-138 hrs) and peak CPK was 11-fold increased on average. Mean H.R. 99 $\pm$ 25, SBP 91 $\pm$ 18, DBP 56 $\pm$ 15 (including pts on support). In-hospital mortality was 114/167 (68%). Univariate correlates of survival are younger age, male gender, non-anterior MI, no prior hypertension or diabetes, no ventilator use, higher CI, lower PCWP, transfer to tertiary care facility, and utilization of IABP, thrombolysis, coronary angio (n=89), PTCA (n=56), CABG (n=20) (all $p<0.05$). The multivariate model for survival included left heart cath, CABG, transfer to a tertiary care facility, no ventilator use, no history of diabetes, and younger age. Because most of these variables reflect severity of disease, a subset of 63 patients with complete data including PCWP and cardiac index, i.e. CI 2.1 $\pm$ 0.8 L/min/M^2, PCWP 24 $\pm$ 9 mmHg, was examined. The resulting multivariate model for mortality (N=63) included 4 variables ($p<0.05$): history of hypertension (odds ratio (OR) = 5.2), diabetes (OR=11.4), age (OR=2.2 per 10 yr. increase), and PCWP (OR=1.5 per 2 mmHg increase). Associated medical conditions, age and hemodynamic characteristics are major determinants of outcome when primary LV failure complicates AMI, independent of therapeutic modalities.