CHARACTERISTICS AND LONG-TERM OUTCOMES OF ELDERLY PATIENTS WITH ACUTE MYOCARDIAL INFARCTION COMPlicated BY CARDIOGENIC SHOCK UNDERGOING PERCUTANEOUS CORONARY INTERVENTIONS.

Session Title: DES I and Acute Coronary Syndromes
Abstract Category: PCI - Acute MI
Presentation Number: 2501-446

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Background: Cardiogenic shock (CS) is an important complication of acute myocardial infarction (AMI), with a very high mortality if managed medically. Significant improvement in survival was showed in the SHOCK Trial in patients (pts) assigned to invasive strategy and immediate revascularization. However these improvements were not clearly extended to elderly pts (≥75 years old).

Methods: From March 2003 to October 2008 we collected data about consecutive pts with ST-segment elevation MI (STEMI) and Non-STEMI with CS who underwent percutaneous coronary intervention (PCI), and analyzed clinical and procedural characteristics, in hospital and long-term outcomes and the differences between two age-groups: pts <75 years old (younger group) and ≥75 years old (older group).

Results: PCI was performed in 157 pts with AMI complicated by CS (12% of all AMI-PCI). Among these 58 pts (36.9%) were ≥75 years old, 54 (34.4%) were females, 35 (22.3%) were diabetics, 137 (87.3%) with STEMI, 106 (67.5%) with multivessel disease. Stent was implanted in 82.8% of cases (14.6% drug-eluting stents). Procedural success was 87%. Mean age was 69±12 years (62±9 years in younger and 81±5 years in older group, p<0.0001). The incidence of female gender was significantly higher in older group (50% vs 25.2%, p = 0.005). Use of glycoprotein IIb-IIIa inhibitors was significantly higher in younger group (82.8% vs 51.7% p<0.0001). In-hospital events were 62 (39.4%): 57 deaths (36.3%), 4 (2.5%) target vessel failure (TVF), 1 non fatal stroke (0.6%). At median follow up of 34 months (range 5-69), there were 87 events (55.4%): 73 deaths (46.5%), 13 TVF (8.3%). In-hospital and long-term mortality was significantly higher in older group (55.2% vs 25.2%, p<0.0001 and 62.1% vs 37.3%, p = 0.005 respectively). At multivariate analysis the variables independently related to the risk of mortality were age ≥75 years (hazard ratio 1.72, 95% CI 1.23-2.42, p=0.0018) and PCI failure (hazard ratio 3.09, 95% CI 1.81-5.27, p<0.0001).

Conclusions: PCI in elderly pts with AMI complicated by CS, can be performed with an acceptable risk, inferior, in any case, than that reported in most previous studies.