Abstract: **P512**

**Prognosis impact of myocardial revascularization in elderly patients with acute coronary syndrome and left ventricular systolic dysfunction**

**Authors:**
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**Topic(s):**
Acute Coronary Syndromes – Epidemiology, Prognosis, Outcome

**Citation:**

Background: Myocardial revascularization (MR) has improved the outcomes in patients with acute coronary syndrome (ACS) over medical treatment (MT), however its benefit remains controversial in elderly patients which are systematically excluded from randomized trials due to their poor prognosis.

Purpose: To investigate the benefit of MR in a cohort of elderly patients who were admitted to hospital due to ACS and had left ventricular systolic dysfunction and multivessel disease.

Methods: Retrospective, observational study of a cohort of patients 80 years or older who underwent coronary angiography due to unstable angina (UA), non-ST elevation myocardial infarction (NSTEMI) or ST elevation myocardial infarction (STEMI). Only patients with left main artery (LMA) or three vessels coronary artery disease and left ventricular ejection fraction (LVEF) of 35% or less were included. The primary endpoint was death for any cause since the therapeutic decision was taken.

Results: 75 patients were included (male 81.3%; mean age 82.8 ± 2.56; UA 22.7%; NSTEMI 37.3%; STEMI 40%). 25 patients (33.3%) were allocated to MT and 50 (66.7%) underwent MR (40 percutaneous and 10 surgical). Baseline characteristics are shown in table 1. There were no significant differences in LVEF in both groups although there was a higher prevalence of LMA disease, chronic kidney disease (CKD) and infarction (STEMI and NSTEMI) in the medical group. During a 4 year follow up 43 patients died, 21 (84%) in the medical group and 22 (46.8%) in the invasive group. Survival curves are shown in figure 1. A long-rank test was applied to appraise differences between curves with significant result (log-rank 5.88, p=0.015). A Cox-proportional regression model was performed to evaluate the influence of treatment on the mortality of the patients, including as confounders LVEF and the presence of LMA disease, CKD and infarction (HR: 0.52, 95% CI 0.27-0.99; p=0.047).

Conclusion: In elderly patients with multivessel disease and severe systolic dysfunction, myocardial revascularization reduces the risk of death in the mid-term follow up over medical treatment alone.

<table>
<thead>
<tr>
<th></th>
<th>Medical treatment (n=25)</th>
<th>Myocardial revascularization (n=50)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>82 (80-84)</td>
<td>82 (81-85)</td>
<td>0.577</td>
</tr>
<tr>
<td>Diabetes mellitus</td>
<td>52 (%)</td>
<td>44 (%)</td>
<td>0.513</td>
</tr>
<tr>
<td>CKD</td>
<td>28 (%)</td>
<td>12 (%)</td>
<td>0.109</td>
</tr>
<tr>
<td>LVEF</td>
<td>28 (20-30)</td>
<td>30 (25-35)</td>
<td>0.085</td>
</tr>
<tr>
<td>Infarction (STEMI/NSTEMI)</td>
<td>64 (%)</td>
<td>84 (%)</td>
<td>0.051</td>
</tr>
<tr>
<td>LMA disease</td>
<td>54.2 (%)</td>
<td>34 (%)</td>
<td>0.098</td>
</tr>
</tbody>
</table>
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