25.6±18.3 months) started at hospital admission and was interrupted in the case of cardiac and non-cardiac death.

**Results:** Group A patients were older (67.4±12.1 vs 63.1±12.2 years, P<0.0001), with higher BNP (22.3±0.6 vs 20.5±0.5 ng/L, P<0.0001) and Troponin (48.2±77.3 vs 35.9±56.3 ng/mL) levels and lower ejection fraction (43.6±10.2 vs 45.6±8.9, P<0.001). Cumulative survival was significantly reduced in group A patients (log-Rank test, P<0.001). At multivariate regression analysis ITA treatment <2.06 ng/L resulted the strongest predictor of all cause death (HR 2.74, P<0.01).

**Conclusions:** ITA dosage is a simple blood test that is often performed at hospital admission and a predictor of mortality, it allows the identification of high risk STEMI patients, that might benefit from a strict surveillance and more aggressive medical therapy.

**P2219 | BENCH**

Acute effects of catheter-based renal sympathetic denervation on hemodynamics after acute myocardial infarction in pigs


**Purpose:** Previous studies have shown that surgical renal sympathetic denervation (RSD) may have potential benefit for left ventricular remodeling after acute myocardial infarction (AMI). However, there often exists an unstable hemodynamic status in the early stage of AMI, which may be further deteriorated by RSD. So we investigated the acute effects of catheter-based renal sympathetic denervation (CRSD) on hemodynamics after AMI in pigs to evaluate the safety of this application.

**Methods:** 12 Chinese mini-pigs underwent balloon occlusion of the left anterior descending coronary artery followed by reperfusion, and then received bilateral CRSD or sham-denervation. Hemodynamics was monitored at baseline, 1.5 h after reperfusion and 30 min after CRSD/sham-denervation.

**Results:** Ischemia increased heart rate (84±14 vs 107±22, p=0.004) and mean arterial pressure (127±13 vs 107±22, p=0.019), with a decreased cardiac output (2.8±0.4 vs 2.1±0.9, p<0.018). There were no significant differences between CRSD and sham groups in hemodynamics at baseline or after reperfusion. Meanwhile, no significant changes were observed in hemodynamics before and after CRSD/sham-denervation in both groups (table).

**Table 1. Hemodynamic data**

<table>
<thead>
<tr>
<th>HR (beats/min)</th>
<th>before</th>
<th>after</th>
<th>P value</th>
<th>HR (beats/min)</th>
<th>before</th>
<th>after</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMI (mmHg)</td>
<td>100±16</td>
<td>104±15</td>
<td>0.489</td>
<td>110±15</td>
<td>106±18</td>
<td>0.379</td>
<td></td>
</tr>
<tr>
<td>LVSP (mmHg)</td>
<td>130±34</td>
<td>123±24</td>
<td>0.597</td>
<td>133±24</td>
<td>133±24</td>
<td>0.545</td>
<td></td>
</tr>
<tr>
<td>LVEDP (mmHg)</td>
<td>120±43</td>
<td>123±24</td>
<td>0.597</td>
<td>133±24</td>
<td>133±24</td>
<td>0.545</td>
<td></td>
</tr>
<tr>
<td>MAP (mmHg)</td>
<td>120±43</td>
<td>123±24</td>
<td>0.597</td>
<td>133±24</td>
<td>133±24</td>
<td>0.545</td>
<td></td>
</tr>
<tr>
<td>MAP (mmHg)</td>
<td>120±43</td>
<td>123±24</td>
<td>0.597</td>
<td>133±24</td>
<td>133±24</td>
<td>0.545</td>
<td></td>
</tr>
<tr>
<td>CF (L/min)</td>
<td>2.2±0.5</td>
<td>2.2±0.5</td>
<td>0.962</td>
<td>2.2±0.5</td>
<td>2.2±0.5</td>
<td>0.962</td>
<td></td>
</tr>
</tbody>
</table>

**Conclusions:** Our study found no procedural complications following CRSD, and surgical RSD and CRSD will not affect hemodynamics during the acute phase of AMI in large animal model. If confirmed in humans, overactivity of sympathetic nervous system evoked by AMI may become a potential target of the CRSD-related sympathoinhibition.

**P2220 | BEDSIDE**

Cardiac protective effect of adjunctive trimetazidine therapy in primary angioplasty for acute ST-segment elevation myocardial infarction

H.S. Kim1, M.J. Geum1, O.K. Kim1, K.H. Park2, S.H. Kim3, S.Y. Lim3, S.H. Jo4, S.J. Han1, S.A. Kim1, W.J. Park1, H.H. Full31, H.A. Honly University Sacred Heart Hospital, Anyang, Korea, Republic of Korea; Republic of Korea, University Ansan Ansan Ansan, Ansan, Ansan, Korea, Republic of Korea

**Background:** Trimetazidine (TMZ) has been used as an anti-ischemic agent in the treatment of stable angina. In acute ST-segment elevation myocardial infarction (STEMI), it may be expected to improve reperfusion through prevention of no-reflow and ischemia–reperfusion injury. However, cytoprotective effect of trimetazidine on reducing infarct size has been seldom evaluated by imaging modalities in randomized studies.

**Methods:** A total of 192 patients undergoing primary angioplasty for STEMI were randomly assigned to receive or not a 60 mg oral loading dose of TMZ before angioplasty; subcutaneous 30 mg thrice a day for 6 months after the procedure. Primary end-point was echocardiographic infarct size by longitudinal (LS) and circumferential strain (CS) at 1 month. Secondary end points were enzymatic infarct size by peak creatine kinase level, ST-segment resolution and LS and CS at 6 months.

**Results:** The baseline clinical, angiographic, and echocardiographic characteristics were similar between 2 groups (TMZ group, n=95; no TMZ group, n=97) except symptom to the hospital time (median 120 min vs 60 min, p=0.038). At 1 month, LS during ejection period was -15.0±3.5 vs. -15.6±3.1, respectively, in the TMZ vs. non-TMZ group (p=0.370). Also similar between the 2 groups were post-stroke LS (-15.3±3.2 vs. -15.9±2.8, p=0.300) and CS (-16.8±5.5 vs. -17.5±5.1, p=0.578). There were no significant differences in peak creatine kinase levels (2.29±7.14 vs 2.15±0.17, p=0.20), ST-segment resolution, primary ST-segment loss (16.3±3.9 vs. -16.6±3.7, p=0.515) and CS (-18.6±5.4 vs. -18.2±5.0, p=0.702) values at 6 months between 2 groups.

**Conclusions:** The administration of TMZ to STEMI patients before and after primary angioplasty is less likely to improve reperfusion of the downstream zone of infarcted myocardium.

**P2221 | BEDSIDE**

Young age of menarche as a risk factor in women with STEMI

A.M. Otten1, J.T. Drost1, A. Klooosterma1, J.P. Oltvanger1, A.H.E.M. Maas1, A. IJlst1, A. Kluitkenn, Dept. of Cardiology, Ziekenhuis, Netherlands; Radboud University Nijmegen Medical Centre, Department of Cardiology, Nijmegen, Netherlands

**Purpose:** Population based studies observed an increased risk of ischemic heart diseases in women with early age of menarche. The causative mechanisms of this finding are not well understood. Possibly, women with early age of menarche have manifestations of ischemic heart disease at a younger age. We assessed...