**TCT-366**

**Impact of gender on adverse cardiac events in patients with large anterior myocardial infarction: Results from the INFUSE-AMI trial**

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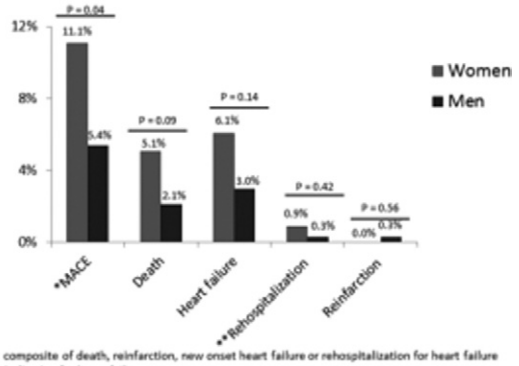
**Background:** Women have less favorable outcomes compared with men after ST-segment elevation myocardial infarction (STEMI) for as yet unclear reasons.
**Methods:** The INFUSE-AMI trial randomized patients with STEMI due to proximal or mid LAD occlusion to intracoronary bolus abciximab (ClearWay RX catheter) vs. no abciximab, and to thrombus aspiration (Export) vs. no aspiration. We compared infarct size as % of LV mass assessed by magnetic resonance imaging at 30-days, angiographic and electrocardiographic markers of reperfusion and 30-day major adverse cardiovascular events (MACE) according to gender.
**Results:** Among 452 patients, women (118, 26.1%) were older, and had a higher prevalence of hypertension, hyperlipidemia and diabetes. They were more likely to undergo PCI ≥3 hours after the onset of symptoms (47.5% vs. 25.1 %, p<0.0001). There were no significant differences among men and women in post-procedure TIMI 3 flow, 89.8% vs. 91.9%; myocardial blush grade 3, 67.8% vs. 70.0%; complete ST resolution, 56.9% vs. 50.3% and infarct size, median [IQR] % total LV mass, 17.0% [6.8-24.8] vs. 17.3% [9.5-23.5]. Unadjusted MACE at 30 days was higher in women (Fig) but after adjustment for confounders, female gender was not significantly associated with increased MACE (HR 1.59, 95% CI 0.75-3.33, p=0.23).

Figure 1: Frequency of adverse cardiac events by gender




* MACE = composite of death, reinfarction, new onset heart failure or rehospitalization for heart failure
** Rehospitalization for heart failure

**Conclusions:** In INFUSE-AMI, women compared to men with anterior MI had longer times from presentation to PCI and higher unadjusted MACE rates which were attributable to baseline differences in risk factors and delayed treatment times, but not to different infarct size.

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**Gender impact on patients treated with drug-eluting stents – 3 year follow-up data**

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**Background:** Earlier data suggested a higher risk of procedure related complications and worse clinical outcomes after percutaneous coronary intervention (PCI) in female as compared to male patients. However, these results still need confirmation due to the lower representation of women in clinical trials and improved devices and techniques. We aim to investigate procedure characteristics and clinical outcomes after PCI using drug-eluting stent with biodegradable polymer in female versus male patients in a real world setting.
**Methods:** Among 3,067 consecutive patients enrolled in the NOBORI 2 study, and treated with Nobori drug eluting stent (DES), 676 were female. Primary endpoint was target lesion failure (TLF) defined as a composite of cardiac death, target vessel related myocardial infarction (MI) and target lesion revascularization (TLR) at 1 year post-procedure. Adjudication and data analysis were performed by an independent clinical event committee and corelab, respectively.
**Results:** Female patients were significantly older compared to male (68±10 vs 63±11y), had a higher incidence of hypertension (76.8% vs 66.9%) and diabetes (37.5% vs 27.2%) and showed a higher Charlson Comorbidity Index (3.6±1.7 vs 3.1±1.8; p<0.001). In contrast, female patients displayed a lower frequency of previous MI (29.4% vs 34.2%; p=0.02), PCI/CABG (31.9% vs 43.6%; p≤0.001) and smoking. A lower number of diseased vessels and lesions were detected and treated in female patients. The lesions were less often located in the LCx (19.4% vs 27.8%; p<0.001) and at bifurcation (16.5% vs 21.5%; p<0.001). At 3-year follow-up, the TLF rate was low in both groups (6.2% female vs 6.6% male group), with similar cardiac death (2.4% vs 2.2), TV-MI (2.5% vs 2.3%), TLR (3.6% vs 3.4%) and TVR (5.2% vs 5.4%) rates. Stent thombosis up to three years were low and similar in both subgroups (1.3% vs 0.8%).
**Conclusions:** Despite differences in the demographics and risk factors between female and male patient's population, no long-term difference in clinical outcome was observed between subgroups and treatment with Nobori, DES with biodegradable polymer was proven to be equally safe and efficient in both patient groups.

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**Lower socioeconomic status predicts major adverse cardiac events (MACE) and increased mortality post-percutaneous intervention (PCI): Independent hazard vs. intersection of modifiable risk factors?**

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**Background:** Previously we reported increased MACE in lower socioeconomic status (SES), public health system (PHS) patients (pts) undergoing PCI. We report expanded / extended analyses, focused on distribution and impact of cardiac risk factors.
**Methods:** 2,000 pts undergoing PCI over 6 years at Cook County Hospital,Chicago,IL were studied. Complete data and follow-up within the PHS was mandatory for inclusion. SES was assessed via geographic household income determination and divided into above/below median income. Pts were followed for occurrence of MACE (death, myocardial infarction and urgent revascularization). Descriptive statistics and survival analyses were performed.
**Results:** 1,985 pts (age 57.2± 10.2, 31.9% female, 36.4% diabetes, median income $38,044) underwent PCI for STEMI(19.3%),NSTEMI(26.9%),unstable angina(24.0%),stable angina(20.3%)or LV dysfunction(3.3%). Follow-up was obtained in 97.3% (mean 2.5 ± 1.9 yrs). There was far greater (9.2% absolute/30% relative) MACE and mortality in lower-SES pts, with the gap increasing over time (Fig 1.) Several important risk factors were more prevalent in lower-SES pts: female gender, smoking, cerebrovascular disease, unstable presentation. The majority (71%) of lower-SES pts were black whereas the higher-SES group was racially diverse.
**Conclusions:** Lower socioeconomic status portends remarkably poor post-PCI outcomes even when access to care is uniform within a PHS hospital. The impact of unevenly distributed risk factors is noted and currently being studied in a multivariate model. Racial disparities pose another concerning, if poorly understood, variable.