

TCT-60

**Clinical Outcome of Preventive Angioplasty in ST-elevation Myocardial Infarction**

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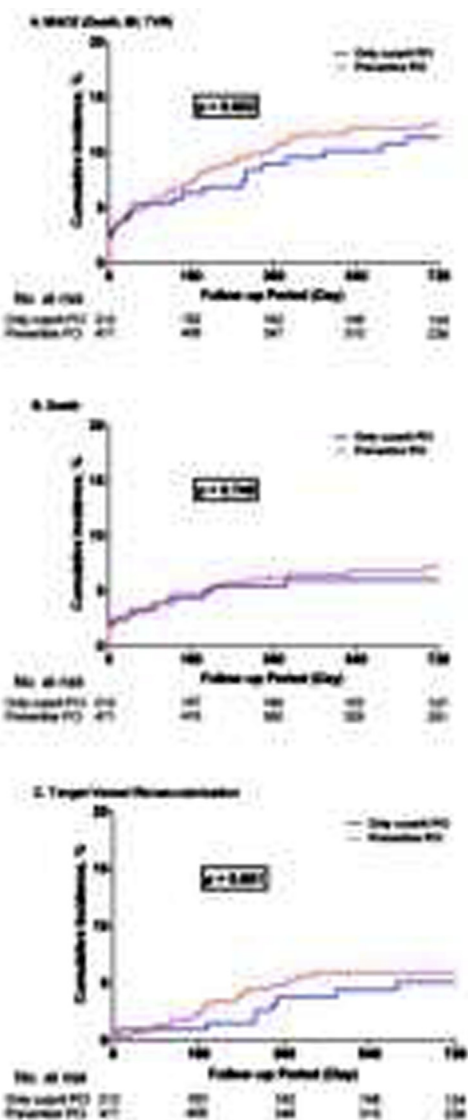
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**Background:** The aim of this study was to evaluate the clinical outcome of preventive angioplasty in ST-elevation Myocardial Infarction.

**Methods:** From the IRIS-DES registry, we identified 683 patients treated using stent with ST-elevation myocardial infarction (STEMI) who had multivessel disease. A total 212 patients was underwent infarct-artery percutaneous coronary intervention (PCI) alone, and a 471 patients was underwent preventive PCI. Major adverse cardiac events (MACE) were defined using composite of death, myocardial infarction, and target vessel revascularization (TVR).

**Results:** During 2 years follow up, culprit only PCI versus preventive PCI was no significant difference in MACE cumulative incidence(11.4% vs 12.5%, Hazard ratio [HR], 95% confidence interval [CI] 0.89 (0.55 - 1.45), P = 0.652), death (6.0% vs 7.1%, 0.86 (0.45 - 1.65), P = 0.653), MI (1.6% vs 7.1%, 1.11 (0.27 - 4.60), P = 0.876), and TVR (8.5% vs 12.0%, 0.65 (0.38 - 1.12), P = 0.121). The cumulative rates of Academic Research Consortium defined definite stent thrombosis were 1.0% in Only culprit PCI group and 0.9% in preventive PCI group (P = 0.901).

**Conclusions:** In our registry study, the preventive PCI in STEMI was not associated with the improvement of clinical outcome, including death, MI, and TVR. A preventive angioplasty strategy of nonculprit lesions in STEMI remains controversial.



TCT-61

**Gender-related Differences in 30-day Mortality Among Patients With ST-segment Elevation Myocardial Infarction Undergoing Primary Angioplasty**

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**Background:** Female gender is believed to be a significant risk factor for mortality among patients with ST-segment myocardial infarction (STEMI) undergoing primary angioplasty (PPCI), but the results of previous studies are controversial.

**Methods:** We collected data about all consecutive patients with STEMI within 12 hours who underwent PPCI and compared clinical and procedural characteristics as well as 30-day mortality between males and females.

**Results:** Between September 2001 and June 2010 1251 patients underwent PPCI at our hospital. Twenty-five percent of the cohort (313 patients) was females. Compared with men, females were less smokers (24.9% vs 75.7%, p< 0.0001), more diabetic (32.4% vs 24%, p< 0.0001), more hypertensive (77.3% vs 65.8%, p< 0.0001), had a higher symptoms-to-balloon time (291±222 vs 238.5±196 min, p< 0.0001), a lower left ventricular ejection fraction (LVEF) (46.8±10% vs 48.5±10%, p=0.007) and a lower left main disease (3.8% vs 5.1%, p< 0.0001). Furthermore, females were less likely to be treated with GP IIb-IIIa inhibitors (76% vs 85.8%, p< 0.0001), with thrombus aspiration devices (42.4% vs 57.3%, p< 0.0001) and to receive a stent (81.1% vs 88.4%, p = 0.002). At 30 days, female gender was associated with a higher mortality (11.8% vs 5.5%, p< 0.0001) and a higher rate of bleedings (4.5% vs 1.4%, p=0.002). After propensity score adjustment, female gender continues to be significantly associated with a higher 30-day mortality (OR 0.56; CI 95% 0.34-0.93, p=0.027).

**Conclusions:** In STEMI patients undergoing PPCI, female gender had more bleeding complications and a higher 30-day mortality compared to men, and remained significantly associated to a higher 30-day mortality after correction for baseline clinical differences. Our data suggest the hypothesis that biological gender-related differences could, in part, explain these findings.

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**Off-hour primary percutaneous coronary intervention, a prognosis factor?**

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**Background:** Conflicting data exist regarding potential treatment delays and outcomes for primary percutaneous coronary intervention (pPCI) performed during off hours. Objective: evaluate the association between off-hour pPCI, total ischemic time and outcomes in STEMI patients undergoing pPCI in daily practice.

**Methods:** 190 consecutive patients (78.9 % men, mean age 62 years ± 13.8) with STEMI undergoing pPCI in our University Hospital were prospectively included from September 2012 to December 2013. Patients were divided in two groups according to the time of day when pPCI was performed. On-hour pPCI (Group 1) was defined as pPCI occurring from 8 am to 3 pm and off-hour PCI (Group 2) was defined as occurring from 3 pm to 8 am. Demographic and clinical characteristics, ischemic time (lag time between onset of symptoms and first medical contact and door-to-balloon time), acute stent thrombosis, reinfarction, major vascular complications, stroke and in-hospital mortality were evaluated.

**Results:** Off-hours pPCI occurred in 65.2% of patients. There was no statistic difference in basal characteristics: age > 70 years (1: 31.2% vs. 2: 28.6%, p=0.41), sex male (1: 75% vs. 2: 81.7%, p=0.19), diabetes (1: 32.8% vs. 2: 26.9%, p=0.26), hypertension (1: 56.2% vs. 2: 44.5%, p=0.09) between the two groups. Patients with symptom onset during working hours had a longer time to first medical contact (136.22 ± 125.05 min) compared with out-of-hours onset (106.67 ± 116.23 min). Lag time between onset of symptoms and first medical contact > 60 min was detected in 64.8% in the on-hour group compared to the 50.4% off-hour group (p=0.05). Door-to-balloon time (D2B) > 90 min was also more frequent in patients who underwent pPCI on-hour (43.6%) compared to off-hour (14.8%) (p< 0.001). Acute stent thrombosis (1: 1.6% vs. 2: 0.8%, p=0.58), reinfarction (1: 1.6% vs. 2: 2.5%, p=0.57), major vascular complications (1: 7.8% vs. 2: 10.1%, p=0.41), stroke (1: 3.1% vs. 2: 0.8%, p=0.28) and in-hospital mortality (1: 4.7% vs. 2: 5%, p=0.62) were similar between both groups.

**Conclusions:** In STEMI patients, off-hour pPCI was common. Short-term clinical outcomes were similar despite longer ischemic time in patients undergoing on-hour pPCI.