

Impact of Smoking on Clinical Outcomes in Female Patients with Acute Myocardial Infarction

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Background/Aims: Cigarette smoking has been recognized as an important threat to women's health. We investigated the impact of smoking on the long term outcomes in Korean female patients after acute myocardial infarction (AMI). **Methods:** Out of AMI patients who were enrolled Korean AMI Registry (KAMIR), 4,444 female patients included in this study. Patients were divided into three groups-non-smoker, current-smoker, past-smoker-according to cigarette smoking status. We compared the incidences and clinical outcomes during in-hospital mortality and major adverse cardiac events (MACE), including cardiac death, re-infarction, coronary artery bypass grafting, heart failure requiring re-hospitalization, and target lesion revascularization during one year clinical follow up between three groups. **Results:** BMI was higher in the non-smoker group than in the smoker group. Also, the non-smoker group had more patients with hypertension and diabetes mellitus. Left ventricular ejection fraction was not significantly different. However, the levels of total cholesterol, triglyceride, and low density lipoprotein cholesterol were higher in the current-smoker group. The in-hospital mortality was significantly higher in the smoker group (1.0% vs. 2.4% vs. 2.6%, $p=0.002$), and cardiac death during 12 months clinical follow-up was significantly more in the smoker group (2.3% vs. 4.3% vs. 5.1%, $p=0.003$). Total MACE during 12 months were higher in the smoker group (5.5% vs. 7.5% vs. 10.3%, $p=0.007$). **Conclusions:** Female smoker with acute myocardial infarction showed higher in-hospital mortality rates and MACE rates during one-year clinical follow-up period.

Impact of Stent Fracture in the Superficial Femoral Artery on In Stent Restenosis

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Background: Despite improved patency by development of the nitinol stent, stent fracture has emerged as a new problem in the percutaneous transluminal angioplasty of the superficial femoral artery (SFA). The aim of our study was to delineate the impact of nitinol stent fracture in the SFA. **Methods:** 176 consecutive limbs with de-novo peripheral artery disease which underwent rescue stenting with a nitinol stent (SMART stent, Cordis) in the SFA were enrolled between May 2006 and January 2011. Follow-up angiography, fluoroscopy, and computed tomography was done to detect stent fracture. Patients were divided to 2 groups: those with or without stent fracture. **Results:** Stent fracture occurred in 66 limbs (37.5%). Baseline patient characteristics were similar between those with and without stent fracture. Stent fracture group had higher incidence of in stent restenosis (39.3% in fracture group vs. 21.4% in no fracture group; $p<0.001$), more stent use (1.67 ± 0.80 vs. 1.27 ± 0.61 ; $p<0.001$) and longer stent length (144.9 ± 70.9 vs. 119.7 ± 73.1 , $p=0.05$). On the basis of multivariate analysis, in stent restenosis was significant associated with the number of stents used (hazard ratio, 1.47; $p=0.03$), the stent fracture (hazard ratio, 2.13; $p=0.012$). **Conclusion:** Stent fracture in SFA has higher incidence of in stent restenosis and Long lesion and multiple stenting adversely affects stent fracture in patients implanted with a nitinol stent in the SFA. More study to elucidate the impact of stent fracture on clinical outcomes will be needed.