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Opium use frequency in cardiovascular patients, five years after CABG

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Many Iranian patients believe that opium has preventive and treatment effect on hypertension, diabetes mellitus, and cardiovascular disease. Opium consumption was prevalent as 5.2% in Iranian patients with cardiovascular disease. The purpose of this study is to assess the frequency of new opium usage after coronary artery bypass (CABG) in patients undergoing CABG five years ago. All live patients undergoing CABG in 2010 in a teaching hospital of northern part of Iran were invited to study. Demographic data, medical history and frequency of opium usage were collected. Finally 196 patient with mean age of 62.8 (8.3) year old were recruited in the study. More than 65% and 75 were men and live urban area, respectively. The prevalence of diabetes, hypertension and hypercholesterolemia were 43%, 52% and 32% respectively. New opium user and current smoker were reported in 10% and 26% of the study population. It's seems that the misperception of opium treatment effect was an important social and medical condition.

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Biologic response of a porcine coronary artery to stent implantation

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Introduction: Stent implantation in a coronary artery results in mechanical injury of the vessel wall and involves de-endothelization, stretching and tearing of media and in the case of an atherosclerotic plaque also plaque rupture. These processes are followed by the activation of platelets, thrombus formation and inflammation in the vessel wall. Activated chemokines and cytokines activate the proliferation and migration of smooth muscle cells within the media and from media into intima resulting in hypertrophy of the intima and restenosis of the stented segment of the coronary artery.

Methods: Three groups of young pigs were included in the study and followed-up with optical coherence tomography 14 days, 1 month and 2 months after angiographically-guided stent implantation. Three types of stents (bare-metal - BMS, drug-eluting - DES and multimode - MMS) were implanted in each individual pig in a randomized fashion. All stents were of 3.0 x 15 mm in size.

Results: After 14 days the neointima thickness was $118.77 \pm 54.27 \mu\text{m}$ in BMS, $57.15 \pm 12.01 \mu\text{m}$ in MMS and $53.04 \pm 9.50 \mu\text{m}$ in DES. After 1 month the neointima thickness was $323.02 \pm 174.07 \mu\text{m}$ in BMS, $173.46 \pm 60.11 \mu\text{m}$ in MMS and $112.08 \pm 26.00 \mu\text{m}$ in DES. After 2 months the neointima thickness was $250.25 \pm 213.66 \mu\text{m}$ in BMS, $138.86 \pm 110.42 \mu\text{m}$ in MMS and $159.55 \pm 53.95 \mu\text{m}$ in DES.

Conclusion: Biologic response of a porcine coronary artery in terms of neointima thickness to stent implantation is as expected according to stent type and the time of follow-up.

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