TCT@ACC-i2: Invasive and Interventional Cardiology

THE DOUBLE PARADOX: OBESE SMOKERS HAVE BETTER OUTCOMES FOLLOWING PCI FOR ACUTE MYOCARDIAL INFARCTION

Poster Contributions
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Background: Lower mortality rates have been described in obese patients following percutaneous coronary intervention (PCI) (obesity paradox) and in smokers with an acute myocardial infarction (AMI) (smoker’s paradox). We sought to evaluate the impact of obesity and smoking on mortality in AMI patients undergoing PCI.

Methods: The study population included 1,121 AMI patients who underwent PCI during 2007-2008 at a tertiary care teaching hospital. Of these, 762 patients with complete data were categorized into three groups based upon body mass index (BMI): normal (BMI 18.5-24.9 kg/m²), overweight (BMI 25-25.9 kg/m²), and obese (BMI > 30 kg/m²). The primary outcome of interest was all-cause mortality at two years.

Results: Of 762 patients, 42% were obese, 35% were overweight, and 23% were normal; current smokers and nonsmokers comprised 38% and 62% respectively. Obese patients were younger, female, and more often diabetics. Smoking rates did not differ across the BMI groups. Obese and overweight smokers had the lowest mortality rates while nonsmokers with normal BMI had the highest (Figure). In multivariate analysis, obesity was independently associated with lower mortality rates (OR 0.19, 95% CI 0.08-0.45) while smoking was not (OR 0.85, 95% CI 0.39-1.84).

Conclusion: In this study, obese smokers had higher mortality rates than nonsmokers with normal BMI, suggesting presence of a double paradox. In risk-adjusted analysis, obesity was independently associated with better outcomes while smoking was not.