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Chronic CAD/Stable Ischemic Heart Disease

ON-PUMP VERSUS OFF-PUMP CORONARY ARTERY BYPASS SURGERY IN PATIENTS WITH ADVANCED AGE: FIVE-YEAR FOLLOW-UP OF MASS III TRIAL

Moderated Poster Contributions
Poster Sessions, Expo North
Monday, March 11, 2013, 9:45 a.m.-10:30 a.m.

Session Title: Stable Ischemic Heart Disease: CABG in 2013
Abstract Category: 3. Acute Coronary Syndromes: Therapy
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Background: Advanced age is associated with increased mortality and morbidity in patients undergoing coronary artery bypass grafting (CABG), which may be a consequence of cardiopulmonary bypass. We aim to evaluate cardiac events and long-term clinical outcome in patients with advanced age and stable coronary artery disease (CAD) undergoing off-pump (OPCAB) and on-pump (ONCAB) CABG.

Methods: The MASS III was a single-center randomized trial that evaluate 308 patients with stable CAD and preserved ventricular function assigned for: 155 to off-pump and 153 to on-pump CABG. Of this, 176 (58.3%) patients had 60 years or older at the time of randomization (90 of-pump and 86 on-pump). Primary composite end points were death, myocardial infarction, further revascularization, or stroke.

Results: The two randomized groups were well-matched for baseline demographic, clinical, and angiographic characteristics. The mean age was 67.2 (±5.0) years. In hospital analysis ONCAB patients had a higher incidence of postoperative stroke or myocardial infarction: 13 (15.1%) vs 5 (5.6%); p=0.036. After 5-year follow-up, there were no significant differences between both strategies of CABG in the composite end points 29.1% vs 27.8%; (Hazard Ratio 1.07; CI 0.62 - 1.87; p=0.8) for ONCAB and OPCAB respectively. (Figure 1)

Conclusion: In this advanced age population, off-pump surgery did not add benefit in clinical outcome at 5-year follow-up.