INCIDENCE OF POSTOPERATIVE ATRIAL FIBRILLATION (POAF) AFTER ROBOTIC CABG VERSUS TRADITIONAL CABG AND ITS ASSOCIATED MORTALITY AND MORBIDITY

Poster Contributions
Hall C
Sunday, March 30, 2014, 3:45 p.m.-4:30 p.m.

Session Title: Arrhythmias and Clinical EP: New Observations Affecting Clinical Management
Presentation Number: 1217-118

Authors: Muhammad Rizwan Sardar, Wajeeha Saeed, MaryAnn Wertan, Marwan Badri, Trisha Senss, Francis Sutter, Lankenau Medical Center, Wynnewood, PA, USA

Background: Postoperative Atrial Fibrillation (POAF) is a common complication following cardiac surgeries. Minimally invasive revascularization; like Robotic CABG (R-CABG) have shown comparable efficacy and shorter length of stay as compared to traditional sternotomy CABG. However, there is no data comparing two forms of revascularization and their associated POAF.

Methods: This is a retrospective, single center study that included all R-CABG and CABG performed at our institution from 2003-2012. Primary outcome of the study is incidence of POAF. Secondary outcomes are thirty day mortality and length of stay (LOS).

Results: There were 1324 patients in CABG and 991 in R-CABG group. CABG group had higher mean age (66.2 vs 65.2), more males (75.7% vs 70.1%), more no. of diseases vessels (2.83 vs 2.17) with higher graft anastomosis (3.44 vs 1.31) compared with R-CABG arm. There was higher incidence of POAF in CABG arm (26.5%) vs R-CABG (15.2%) p <0.001; OR 2.067 [1.66-2.56]. After adjusting for confounders, p 0.018; 1.93 [1.12-3.34]. There was shorter LOS 5.96 vs 7.95 days (p<0.001) and higher 30 day survival 97.3% vs 89.1%(p <0.001) in R-CABG group. However, survival analysis is limited due to higher unavailable data for CABG arm (9.8%).

Conclusion: Incidence of POAF is higher in traditional CABG as compared to R-CABG. The incidence is independently predicted by the choice of revascularization technique and is associated with higher morbidity. Choice of surgery may play a role in reducing morbidity due to POAF.