**UNPREDICTABLE “DE NOVO” ATRIAL FIBRILLATION OCCURRENCE AFTER MITRAL VALVE REPAIR VS REPLACEMENT**

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Objectives: To analyze the incidence of postoperative atrial fibrillation (AF) after mitral valve (MV) surgery.

Background: The incidence of AF after MV surgery may be related to different preoperative and surgery-related factors.

Methods: We prospectively analyzed 255 consecutive patients between July 2011 and January 2012, admitted in our cardiac rehabilitation department after cardiac surgery. A total of 97 patients (median age 61 yrs, males 44.3 %) underwent MV surgery (repair and biological or mechanical replacement). All patients were continuously monitored with an EKG telemetry system during the first two weeks after surgery and information about known history of AF were collected (paroxystic, persistent, permanent).

Results: Out of 97 MV surgery patients, 66 (68.0 %) underwent valve repair and 31 (32.0 %) biological or mechanical replacement. Among 97 MV surgery patients, 47 (48 %) developed postoperative AF, among which 19 (40.4 %) without previous history of AF and 28 (59.6 %) with previous history of AF. The incidence of postoperative AF in patients is significantly different between MV repair and MV replacement (41.0 % vs 65.0 % respectively; p=0.049).

Conclusions: Almost half of the patients (48%) undergoing MV surgery developed postoperative AF. Patients undergoing MV replacement presented a higher occurrence of postoperative AF than those undergoing MV repair.