Atrial fibrillation in Mitral Valve Surgery

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There are two principles in patients undergoing mitral valve (MV) surgery. First, MV surgery is recommended and better to be performed before patients acquiring atrial fibrillation (AF). Second, concomitant Cox-maze procedure should be considered in patients with AF.

MV surgery alone restored sinus rhythm in less than 10% of patients with any previous history of AF, and in patients with AF persisting more than 3 months, patients are likely to have postoperative AF and will require long-term anti-coagulation. Although its effectiveness has been demonstrated, Cox-maze operation is not always performed due to hesitation to perform a right atriotomy for ablation zone or to extend the cardiopulmonary bypass time. The safety and efficacy of Cox-maze procedure in high risk patients like over age of 75, low ejection fraction, or renal insufficiency (creatinine > 2.0 mg/dl) have also been discussed in previous reports. These variables should not be exclusion criteria for performance of Cox-maze

procedure, but indication should be carefully considered in each individual patients.

Postoperative AF is often seen in cardiac surgery and it occurs in 20% of patients undergoing MV surgery without previous history of AF. Conduction disturbances and atrial arrhythmias in the postoperative period impede clinical recovery and prolong hospitalization. Trans-septal superior approach for exposure of the MV have higher incidence of conduction disturbances but it is less likely to prolong more than 2 weeks postoperatively.