

## Rheumatic tricuspid valve disease: Repair versus Replacement

**Background:** Tricuspid valve disease is most commonly functional, however, organic affection still accounts for one fourth of cases. Rheumatic fever which is endemic in Egypt is a main cause of organic affection. Current practice largely relies on tricuspid valve repair; however, it has been difficult to determine optimal procedure.

**Objectives:** Herein, we study the outcome of replacement versus repair in such patients.

**Patients and methods:** A prospective study was conducted on 300 consecutive patients with rheumatic heart disease showing severe tricuspid valve affection underwent tricuspid valve surgery, between 2014 and 2018. The patients were divided into two groups; TVR group (n=150) which included patients who underwent tricuspid valve replacement and TVr group (n=150) which included patients who underwent tricuspid valve repair. Diagnosis and follow up were done by echocardiography. Peri-operative variables, clinical outcome, morbidity, mortality, and follow up data were recorded.

**Results:** Mean follow-up was  $4\pm 1.32$  years. In-hospital mortality was 6 patients (4%) in TVR group and 3 patients (2%) in TVr group (P value  $\geq 0.05$ ). Postoperative low cardiac output syndrome and stroke were significantly higher in the repair group. Postoperative RV dysfunction, renal impairment, renal failure and chest re-exploration were significantly higher in the replacement group. Severe tricuspid regurgitation was reported in 19 patients (12.6%) of the repair group on follow up.

**Conclusion:** Tricuspid valve repair is preferable to replacement to avoid the drawbacks of prosthesis. However, tricuspid valve replacement is feasible with comparable survival outcome and the progressive nature of the rheumatic disease may recommend replacement.

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