High prevalence of tricuspid valve disease among rheumatic heart disease patients in Yemen

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**Background:** Rheumatic heart disease is common in Yemen with high prevalence among children and young adult that make social and economic burden over the patient, his family, the community and the country. Tricuspid valve disease receive less attention as compared to the primary left sided disease. It is frequently labeled as the forgotten valve because appropriate management and surgical correction is often ignored.

**Aim:** The aim of this work was to determine the prevalence of tricuspid valve disease among rheumatic heart disease patient in the cardiac center in TMGH outpatient.

**STUDY DESIGN:** descriptive prospective study

**Methods:** we enrolled all adult patients who had been referred to an echocardiography outpatient Echo Lab. Over 3 months time from 1/5/2009 to 1/8/2009 Setting: cardiac center, Al-Thawra General Hospital, Sana’a city, Yemen.

**Results:** 172 cases (34.4%) were having Rheumatic heart disease out of 500 cases referred to the Echo lab. Organic tricuspid valve disease was found in 33 patients (19.2%), 88 cases (51.1%) were having functional (secondary) tricuspid valve disease. while normal tricuspid valves were found in 51 cases (29.7%). Pulmonary Hypertension was found in 115 cases (66.8%); 27 cases had sever PH (15.7%); 25 cases had moderate PH (14.5%); 63 cases had mild PH (36.6%) and 57 cases had normal pulmonary tension.

Right atrial enlargement was found in 24 cases (14%) while no comment on atrial size in 29 cases (16.9%); 119 cases were having normal RA size. 20 patients (11.6%) were having right ventricular enlargement, no comment on 31 cases (18%) while 121 cases had normal RV size.

**Conclusion:** High prevalence of tricuspid valve disease among the rheumatic heart disease either organic affection or functional (secondary). Tricuspid Valve Diseases need special care before surgery as both organic and functional tricuspid diseases need to be managed surgically in most cases.

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Robotic ablation of paroxysmal atrial fibrillation saves time and irradiation dose

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Alexandria Univ., Cardiology Dept., Egypt and IKEM institute, Prague, Czech Republic; This analysis assesses the effect of Robotic technique on the results of ablation of paroxysmal AF

**Methods:** We studied 150 patients (pts) (86 males and 64 females) having a mean age of 51.3 yrs (54 > 50, 96 below 50 yrs), who suffered from symptomatic drug refractory paroxysmal AF. Cardiac MSCT image integration to the 3D electroanatomic LA map was used in 106
pts (70.6%), however all of them underwent intracardiac echo guided imaging during the ablation procedure. 40 pts underwent manual RF ablation using CARTO, 40 pts underwent ablation using NavX system, 70 pts underwent robotic ablation using Sensus system. Pulmonary vein isolation was done to all pts using either pulmonary vein (PV) antral isolation in 116 (77.3%) or circumferential pulmonary vein ablation in 34 pts (22.7%). Circumferential PV ablation was usually associated with posterior wall ablation. All pts were followed at 3, 6, 9, and 12 months.

Results: 34 Patients (22.6%) developed early recurrence of AF after an initial blanking period of 3 months. We had 16 patients(10.6%) with treatment failure at short term follow up, this number increased to 18 patients (12%) at midterm follow up and further small increase to 20 patients (13.3%) at long term follow up, recurrences were any episode of AF and/or AFL/AT > 30 s after the blanking period. The incidence of recurrence of AF in males was 13% (11/86), 14% in females (9/64), P NS.Comparison between manual and robotic groups as regards ablation points.

<table>
<thead>
<tr>
<th>Groups no. of patients</th>
<th>Mean</th>
<th>P</th>
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</thead>
<tbody>
<tr>
<td>Total no. of ablation points</td>
<td>Manual group</td>
<td>80</td>
</tr>
<tr>
<td>Robotic group</td>
<td>70</td>
<td>49.9</td>
</tr>
<tr>
<td>Total ablation time</td>
<td>Manual group</td>
<td>80</td>
</tr>
<tr>
<td>Robotic group</td>
<td>70</td>
<td>1323.1</td>
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<tr>
<td>Total fluoroscopy time</td>
<td>Manual group</td>
<td>80</td>
</tr>
<tr>
<td>Robotic group</td>
<td>70</td>
<td>6.9</td>
</tr>
<tr>
<td>Total fluoroscopy dose</td>
<td>Manual group</td>
<td>80</td>
</tr>
<tr>
<td>Robotic group</td>
<td>70</td>
<td>552.7</td>
</tr>
</tbody>
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Complications rate: None in 92.5%, air embolism zero, cardiac tamponade zero, trivial pericardial effusion 1, groin hematoma 5%, pulmonary vein stenosis >50% zero. No difference in complications between robotic and manual groups.

Conclusions: Robotic ablation of paroxysmal atrial fibrillation (AF) and ischemic (LV) failure need to be delineated.

Methods: The study was conducted on 48 pts with persistent AF of more than one week and less than one year duration and ischemic LV failure (EF < 50%). They were randomized into two groups matched in age and gender. Group 1: 24 pts submitted to rate control treatment. Group 2: 24 pts submitted to rhythm control treatment. Exclusion criteria: previous thromboembolism, left atrial (LA) or LA appendage thrombi, LA > 60 mm, intractable heart failure. Myocardial performance index (Tei index) was determined. Rate control: was achieved using digoxin, carvedilol, bisoprolol. Precardioversion TEE was done within 24 h of cardioversion. All pts received warfarin.

Results: Heart rate on admission and after one month follow up (mean): G1: 96 then 78. G2: 95 then 74. All improvement of LV function was statistically insignificant. NIH class II, III and IV: G1: 100% then 66%, G2: 91% then 58%. The EF increased from 41% to 46% and 42% to 47%. Fractional shortening: G1 20 to 23; G2 20 to 23. Tei index improved in both groups: 1.4 and 0.96 to 1.27 and 0.74. LA diameter G1 50 mm to 52; G2 48 to 46.

Conclusions: Both rate and rhythm control strategies are effective in controlling HR equally. There is no difference between both strategies in improvement in LV function after one month of therapy.

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Six years of cardiac database management: The impact on clinical practice

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Background/introduction: Cardiothoracic surgery quality improvement is a core value of healthcare provision. In order to improve quality of care, information on key indicators needs to be systematically collected and maintained. In 2006, the cardiothoracic department at Aga Khan University developed an infrastructure that would enable us to answer the more challenging research queries in cardiac surgery practice. The resulting electronic cardiothoracic database is based on the European Association of Cardiothoracic Surgeons database and the Society of Thoracic Surgeons database. While, it is currently used only at Aga Khan University, it has the potential to become a multicenter database.

Objective: To assess the impact of database development and maintenance on clinical practice and quality of care.

Methods: We chose the following aspects of patient care to be included in the database form: pre-surgery patient condition and medications, anesthesia information, perfusion information, surgery information, recovery information, status of the patient at discharge, 30-days and 365-days post-surgery follow-up information.