



## SURGICAL TREATMENT OF CARDIAC TUMORS: OUR EXPERIENCE

## Cardiology

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## ABSTRACT

Cardiac tumors are uncommon but not rare, mostly intracavitary includes both benign and malignant tumours. Here we summarize a retrospective study of intracardiac tumours at our centre in past 3 years from August 2015 to August 2018. Clinical histories, perioperative data, surgical findings, efficacy and follow-up data were reviewed in our study.

## KEYWORDS

Cardiac tumors, Echocardiography, Surgery.

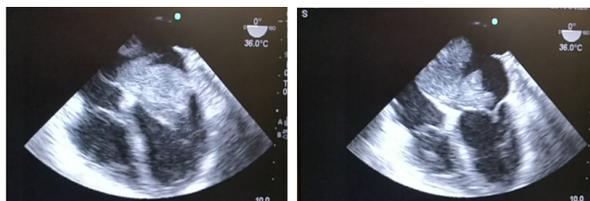
## INTRODUCTION

- Cardiac tumours are uncommon but not rare, mostly intracavitary includes both benign (approximately 75%) and malignant (approximately 25%) tumours. (1)
- Cardiac tumors are classified into primary tumors that arise from part of the heart or metastatic tumors that involve the heart. Primary cardiac tumors include benign and malignant tumors. Primary cardiac tumors are rare and the incidence is from 0.001 to 0.3% by autopsy. (2)
- 1<sup>st</sup> right atrial (RA) myxoma was removed by Bahnsen in 1952 using caval inflow occlusion, Crafoord in Sweden first successfully removed a left atrial (LA) myxoma in 1954 using cardiopulmonary bypass (CPB). (3)
- Surgical treatment is indicated for almost all cardiac tumors, malignant or benign, because of the high risk of secondary complications and surgical treatment being the complete cure in most of these cases.

## PATIENTS AND METHODS

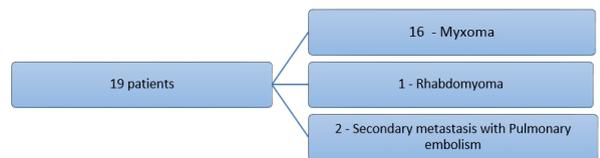
- Between August 2015 to 2018, 19 patients (Male – 6 and Female – 13) age between 1 year to 64 years were diagnosed as having cardiac tumours.
- Clinical presentation – Patients present nonspecific symptoms depending on tumor site and infiltration, regardless of tumor type. Variety of symptoms ranging from dyspnoea on exertion, palpitation to signs and symptoms of stroke and pulmonary artery embolism.
- Diagnosis established using 2D Echocardiography, Computed tomography and Magnetic resonance imaging in case of uncertainty. (4,5)
- 1 patient aged 1 year was diagnosed as having obstructing right ventricular rhabdomyoma during routine evaluation for Tuberous Sclerosis.
- 2 patients presented with severe dyspnoea and on further evaluation diagnosed as case of pulmonary artery embolism with secondary metastasis from Germ cell tumour and one from Leiomyosarcoma.

## 2D ECHOCARDIOGRAPHY – LEFT ATRIAL MYXOMA

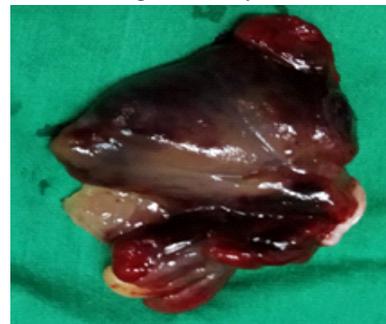


## RESULTS

- All patients underwent surgical excision and 2 patients underwent pulmonary endarterectomy, all patients had uneventful recovery. There were no deaths.
- All specimens were sent for histopathological evaluation and follow up



Intra-operative view of Right Atrial Myxoma



Excised Left Atrial myxoma specimen

- Amongst 16 patients with myxoma – 12 had LA myxoma and 4 had RA myxoma. 2 patients were having secondary metastasis were referred in view of treatment of primary tumour.
- Patient with rhabdomyoma was treated with complete resection in view of right ventricle obstruction. (6)

## CONCLUSION

- In summary, cardiac tumors comprise a small percentage of cardiac diseases which needed surgical treatment.
- Patients with cardiac tumors often suffer nonspecific symptoms such as weight loss, exhaustion, heart failure, arrhythmias, and embolisms. (7,8)
- Around 75% of cardiac tumors are benign, with myxomas the most frequent type; among the 25% that are malignant, angiosarcomas and rhabdomyosarcomas predominate.

- Once diagnosed with cardiac tumors, surgical resection is an effective way in improving survival and long-term life quality with low rate of morbidity and mortality and the prognosis is excellent.(9)

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