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Research Article

56 Years of Experience of Primary Tumors of The Heart

Federico Benetti* and Natalia Scialacomo

**Department of Cardiac Surgery, Argentina*

***Corresponding author:** Federico Benetti, Department of Cardiac Surgery, Argentina

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Abstract

From 1963 to 2019 7,600 open Heart operations were done in ouers diferents centers in Argentina. 23 Patients (0.3%) were operated on of primary Tumor of the heart. In this report, we review the surgical experience and results of cardiac tumors during this 56 years Material and methods 15 patients were female (65%) The average age was 52 years (1967) The clinical presentation was Dyspnea 8 (34,8%) Arrtymia 6 (26,08%) ChestPain 3 (13%), Emboli 2 (8,7%), Syncope 2 (8,7%), Accidentaly 2(8,7%). 17 were Myxomas 17 cases (74%) 15 (88%) left and 2 (12%) rigth. Papillary Fibroelastoma 4 (17,4%) sarcoma 1 (4,4%) Cyst 1 (4,4%) Surgical Thecnique: all of the patients in this serie were operated on with Cardiopulmonary Byapass Results The operative mortality was 1 case (4,3%). The patient with a Sarcoma died inmediatly after the operation; the entire Rigth Ventricle was invaded by the Tumor the exsicion was very dificult. The rest of the patients survived the operation At the average of 29, 8 years of follow up of the 17 patients with Myxmomas 6 (35%) died ,no recurrence of the Tumor were found in this patients. In the patients with Papillary Fibroelastoma 2 patients were lost of follow up one died at 12 years after de operation and the other is alive The patient withCyst died at 8 years after the operation conclusión Most of the primary Tumors of the Heart have good Surgical Prognosis is vey important the early detention.

Keywords: Primary Tumors of the Heart; Surgical of Tumors of the Hearts; Surgery Tumors of the Heart

Introduction

Primary cardiac tumors can be classified as either benign/malignant or primary/secondary of malignant pathology. Data from 22 large autopsy series reported by Mc Allister et al [1]. showed the frequency of primary cardiac tumors is ~0.02%, corresponding to 200 tumors in 1 million autopsies. Around 75% are benign; nearly half are myxomas; and a majority of the rest are lipomas, papillary fibroelastomas, and rhabdomyomas [1]. Sixty years ago in 1954, Crafoord [2] was the first to excise an atrial myxoma on cardiopulmonary bypass [2]. Today, cardiac tumors represent around 0.3% of all open-heart surgeries [3]. From 1963 to 2019 7,600 open Heart operations were done in ouers diferents centers in Argentina. 23 Patients (0.3%) were operated on of primary Tumor of the heart. In this report, we review the surgical experience and results of cardiac tumors during this 56 years.

Material and Methods

15 patients were female (65%) The average age was 52 years (1967) The clinical presentation was Dyspnea 8 (34,8%) Arrtymia 6 (26,08%) ChestPain 3 (13%), Emboli 2 (8,7%), Syncope 2 (8,7%), Accidentaly 2(8,7%). 17 were Myxomas 17 cases (74%) 15 (88%) left and 2 (12%) rigth. Papillary Fibroelastoma 4 (17,4%) sarcoma 1 (4,4%) Cyst 1(4,4%) Surgical Thecnique: all of the patients in this serie were operated on with Cardiopulmonary Byapass 21 througth Sternotomy and 2 Minimally invasive Rigth Thoracotomy. In 20 patients the tumor was excised under direct visión with and without magnification. In 3 patients Video 3 D was used to improved the visualization during the operation.

Results

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Discusión

The most common site of attachment of the myxoma is in the fossa ovalis. Accounts for approximately 70% of all cardiac tumors. Locations of this tumor in the general population are: 75% in the left atrium (LA), 23% in the right atrium (RA), and only 2% in the ventricles [4-6] Other rare arising of CM are the hearts valves Multiple locations present in 50% in familial forms [7-9]. The clinical signs, manifestations, and symptoms produced are non-specific and determined by the location, size, and mobility of tumor. The main patterns of clinical presentation for patients with myxoma are in general in all the experiences; dyspnea, syncoptic episodes, arrhythmia, palpitations, congestive heart failure, and sudden death, systemic embolism) In ouer experience w the most común clinical presentation was Dyspnea follow by Arrtymia. After clinicopathologic analysis of 61 patients with this tumor were concluded that pathological profiles of cardiac myxoma are not related with the clinical presentation [10].

When diagnosis has been established the treatment of choice for this tumor is surgical resection and in most cases it is curative. The median sternotomy, cardiopulmonary bypass, aorta, and bicaval cannulation with or without cardioplegic heart arrest is the standard approach to resection of these tumor. Novel minimally invasive surgical techniques such as video-assisted or totally robotic resection were described in the literature [11,12]. Surgical approach (atrial or ventricular or aortic) depends from location and size of the mass. While the access of the tumor may be different in most cases, however the general rule to resection of these tumor should be remain. Manipulations of the tumor during resection must be minimizing to prevention peripheral embolization. Complete excision of the mass with the attachment area in the cardiac structures (atrial septum, ventricular septum, atrium or ventricles free wall, and cardiac valves) should be performed. Recurrence may occur within a few months to several years after the initial surgical excision.

The recurrent frequency of myxoma is about 1% to 3% in sporadic forms, 12% in familial forms, and 22% in complex forms. Regular follow-up with clinical examinations and TTE study is recommended in patients with familial CM because of these patients have a significantly higher risk of recurrence. Causes of multiple recurrences include familial forms of the tumor, incomplete excision, intra-cardiac implantation from the original tumor, and malignant transformation. Genetic screening of patients with recurrent cardiac myxomas might help to identify patients at risk for additional recurrence [13,14] Papillary fibroelastoma is a rare benign cardiac tumor (7%–9% of benign primary tumors second after cardiac myxoma as more frequent cardiac valvular tumor [15,16] In 85% of cases, it is a valvular disease affecting aortic valve (35%–63%), mitral valve (9%–35%), tricuspid valve (6%–15%), and pulmonary valve (0.5%–8%) and in a very few cases nonvalvular sites, with left ventricular masses documented on the septum [15,16] and the outflow tract [17,18] Fibroelastomas have also been reported on the right ventricular papillary muscles.

The atrial side of the mitral valve is more often affected by the disease and dimensions may vary from 2 to 70 mm [19] I ouer experience 2 of the tumors were in the Aortic Valve and required to change the valve , one in the mitral valve was exiced without change the valve and another in the ventricular septum Papillary fibroelastoma is a rare, more often incidentally found, form of benign cardiac tumor, Its early diagnosis is paramount to avoid complications such as pulmonary or paradox embolism into systemic circulation. Diagnostic workup to exclude myxomas and valvular endocarditis must be careful. Clinical history, characteristic, size, and position are generally useful for differential diagnosis; echocardiography usually shows a small, mobile, pedunculated, or sessile valvular or endocardial mass, which on many occasions flutters or prolapses into the cardiac chambers during systole or diástole The operation is in general simple and has a good prognosis Cardiac sarcomas usually present with insidious symptoms in young and middle age patients.

They generally possess a poor prognosis with overall survival ranging from 6 to 12 months [20,21] Symptoms related to cardiac sarcomas are variable and may vary from specific cardiac symptoms (pericardial effusions with tamponade, arrhythmias, valvular dysfunction, intracardiac blood flow abnormalities, congestive heart failure, peripheral embolization with systemic deficits, dyspnea, chest pain, syncope, hemoptysis, sudden cardiac death) to general symptoms of neoplastic diseases like fever, malaise and weight loss in general is very dificult to exicesed entire and sometimes require to replace the heart [22-24] A review of the published papers appears to indicate that there are two distinct types. The one type is cystic and is discovered incidentally as a superficially situated lesion lined by ciliated epithelium. The other type is situated in the low interatrial septum or membranous portion of the interventricular septum and has a tubular or trabecular pattern [25] Ouer case was localized in the trcuspid valve and was very easy to excised. In general the Surgical treatment of the most frecuents primary tumors of the heart have good prognosis, is very important the early detection.

Conclusion

Surgical resection of cardiac myxomas contributes in an excellent prognosis and associated with low complications and recurrences rate. Regular long-term follow-up is recommended in all patients with cardiac myxoma particularly in patients with familial form of CM. Familial CM affects the patient's treatment, follow-up, and his family screening (minimum) with TTE The papilary Fibroelastoma en general is very easy to excised and the Cyst in general also .The surgery of Sarcoma is in general very dificult and many times require an other intervention Most of the primary Tumors of the Heart have good Surgical Prognosis is vey important the early detention.

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