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Case Report

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The Cardiac Myxoma Surgery 08 Cases Operated in Mali

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ABSTRACT

Introduction: Cardiac myxoma is a rare tumor that represents only 0.25% of primary cardiac tumors and the most common in adults [1]. Nearly 75% of these tumors are located in the left atrium [2,3]. The symptoms and symptoms are disparate and depend mainly on the location of the myxoma [4]

Patients and methods: This was a retrospective, descriptive study conducted at the André Festoc Center in Bamako. It focused on the records of patients operated on for myxoma of the left Oreillette (OG) under extracorporeal circulation (CEC) between September 10, 2018 and December 31, 2022.

Results: We collected 640 patients, including 8 cases of cardiac myxoma. The majority were women. The mean age was 39 years [33-64]. Clinical signs included exertional dyspnea III and acute pulmonary edema. All patients benefited from cardiac echo-Doppler. Surgical excision was total in all patients, i.e. 100%. The mean duration of CEC was 65min [48 min - 82min], the mean aortic clamping time was 38min [26min - 129 min]. Cardioplegia was DEL NIDO in 100% of cases. Postoperative follow-up was straightforward.

Conclusion Surgical excision is the curative treatment for cardiac myxomas with a good prognosis and available in Mali with good results.

Keywords: Myxoma, Cardiac, Excision, CEC, Mali

Introduction

Cardiac myxoma is a rare benign tumor that accounts for only 0.25% of heart disease and is the most common form of primary tumor of the heart [1]. It is located in the left atrium in 75% of cases [2,3]. Symptomatology is disparate, depending mainly on location. Diagnosis was made by echocardiography, which revealed an intra-atrial, mobile, inhomogeneous tumor mass occupying the entire atrial cavity. Surgical excision was performed under extracorporeal circulation, and the post-operative course was straightforward with a favorable outcome [4].

Patients and methods: This was a retrospective, descriptive study carried out at the Centre André Festoc de Bamako of the Centre Hospitalier Universitaire Mère Enfant le Luxembourg. It focused on the records of patients operated on for open-heart cardiac surgery under extracorporeal circulation (ECC) whose diagnosis of myxoma of the Oreillette was made by cardiac Doppler ultrasound between September 10, 2018 and December 31, 2022.Socio-demographic, clinical, paraclinical and therapeutic data were analyzed on EPI info version 6.0 and entered on Word 2011. Informed consent was obtained.

Results

We collected 640 patients including 8 cases of cardiac myxomas, 6 of which were OG myxomas and two OD myxomas. Cardiac prevalence is 1.25% of cardiac surgical activity in Mali. All cases were predominantly female. Mean age was 39 years [33-64]. Exertional dyspnea III, cough and acute lung edema were the clinical signs most frequently found, i.e. 72%. 83% and 65%. All patients underwent biological examinations revealing a non-specific biological inflammatory syndrome with an accelerated

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sedimentation rate of 50mm at the 1st hour and an elevated CRP of 70mg/l. and cardiac echo-Doppler. Echocardiography performed in the department revealed a mobile, inhomogeneous right intra-atrial tumour mass occupying the entire atrial cavity. OG location accounted for 75% versus 25% on the right. The mean size was 29.6x72cm in our series. Surgical excision was total in all patients, i.e. 100% under monobloc extracorporeal circulation (ECC). The surgical approach was left atriotomy in 75% and showed a mass occupying the entire left atrial cavity (figure. 2) down to the pulmonary vein junction and prolapsing into the left ventricle, compared with right atriotomy in 25%. The pedicle insertion was septal in the majority of cases. The procedure was completed by cauterization of the base of the left ventricle.

Discussion

The first autopsy description of a myxoma dates back to 1845, and the first clinical diagnosis of a myxoma to 1952 [1]. It is a rare tumor representing 0.5 to 1% of soft tissue tumors, and multiple forms are most often encountered in familial cases and in Carney syndrome [2,5]. In 1954, Crafoord performed the first successful resection of a left atrial myxoma. Cooley described the first resection of the septum, and Franfenfeld reported the first excision of a biauricular myxoma in 1960 [2]. Myxomas are more common in women in their thirties [2,6], which is confirmed by our study. However, other authors have reported cases of cardiac myxoma in men. This constrains our study. The left atrium accounts for 5-90% of myxoma locations, with implantation mainly in the interatrial septum [5]. We found 75% of OG myxoma locations. The myxoma may also implant on the posterior and anterior surfaces of the left atrium or in the left auricle. Fifteen to 20% of myxomas are found in the right atrium [2, 3], compared with 25% in our series in the right, particularly around the fossa ovale. Intracardiac myxoma is characterized by a high degree of clinical polymorphism, which can lead to delayed diagnosis, although embolic events and valve obstruction syndromes are the most frequent manifestations. It may be asymptomatic in 10% of cases [6, 7].

Positive diagnosis of myxoma relies essentially on echocardiography, the key examination with a sensitivity of 93.3% and specificity of 96.8% [8]. TEE is particularly useful for identifying areas of attachment [Figure1], but diagnostic certainty is histological, as in our patients. All patients underwent vertical median sternotomy. The CEC was aortobicave with DELINIDO cardiology [Figure 2]. The approach to the tumor was a left atriotomy using the SONDERGAND approach in all patients. Mean Cec time was 65min [48min - 82min], mean aortic clamping time was 38min [16min - 129min]. The mean tumor size in our series was 11x87 mm. All our patients benefited from intraoperative tabletop TEE, which was 100% available in our department [Figure 4]. Surgically, tumor resection was complete and total, including the myxoma, as in our series. The pedicle and its base of implantation were at septal level, but the procedure was completed by cauterizing the base of implantation with an electric scalpel, without any further action on the small mitral valve [9,10]. No manipulation of the cardiac myxoma was allowed, to avoid fragmentation and the risk of embolic migration. This monobloc excision was recommended in the literature for all our patients, but fragmentation in gelatinous and soft forms increases the risk of migration [11-14]. Histology of the surgical specimens confirmed the diagnosis of cardiac myxoma [figure 3]. None of the patients underwent valve replacement. The immediate postoperative course was straightforward. However, we found no ischemic vascular events in any of our patients. In the literature, as in our patients, the outcome was favourable [15,16].

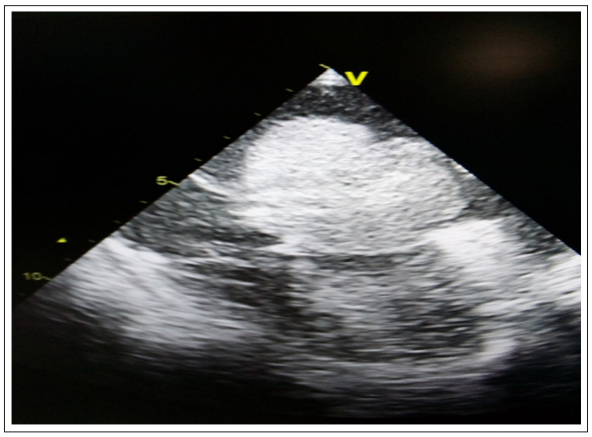

Figure 1: Transthoracic cardiac Doppler echo with apical incidence of the four cavities, showing a large atrial mass.

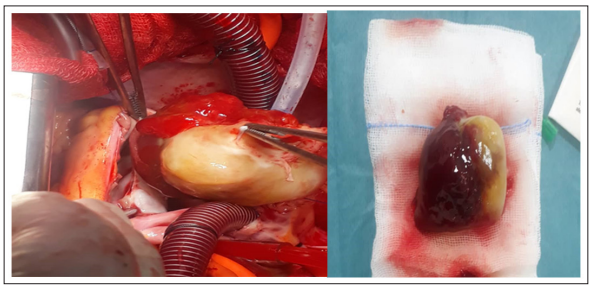

Figure 2: Intraoperative view of myxoma Figure 3: Surgical specimen of an OG myxoma under CEC

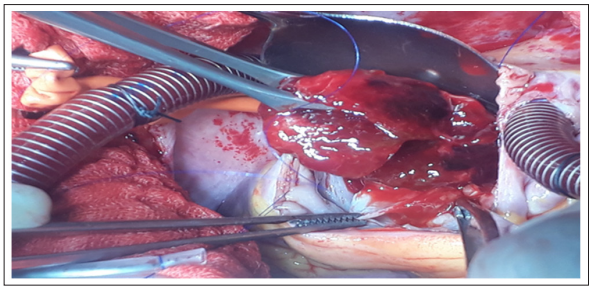

Figure 3: Delivery of gelatinous myxoma with a spoon

Conclusion

Cardiac myxoma is a rare primitive cardiac tumour that is usually symptomatic. Diagnosis is based essentially on echocardiography, the reference examination available in Mali. Treatment is always surgical, involving total excision in monobloc, and is feasible in Mali with a favorable outcome.

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