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RESEARCH ARTICLE

A REVIEW OF THE LITERATURE AND AN ANALYSIS OF PERTINENT CASE RELATED TO CARDIAC MYXOMA

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Abstract

Introduction:-

Primary cardiac tumors are a rare clinical entity with a frequency ranging from 0.001 to 0.003%. About 80% of these tumors are benign, and of these 70% are myxomas. Although histologically benign, in some cases myxomas are fatal due to impaired cardiac dynamics and thromboembolic potential. When tumors are diagnosed and resected in time, they lose their deleterious potential and patients are cured, except in rare cases of recurrence.

We report the case of a myxoma revealed by exertional dyspnea. This clinical case highlights the variability of the manifestation of the myxoma, and draws the attention of the clinician to always carry out investigations in the face of any cardiac symptomatology.

Observation:-

We report the case of a 67-year-old patient with a cardiovascular risk factor being an unbalanced arterial hypertension, and as a history being obstructive bronchopulmonary disease and silicosis. Admitted for management of a worsening of his dyspnea becoming NYHA stage III, the physical examination reveals a good general condition with a BP of 150/90mmhg, and a heart rate of 78 bpm. The cardiovascular auscultation found well perceived heart sounds at regular rhythms, without murmurs or superimposed noises and without signs of right or left heart failure. The electrocardiogram showed a regular, sinus rhythm, with a heart rate of 78 beats per minute, constant PR at 160ms, no cavitary hypertrophy or repolarization disorder. A transthoracic echocardiography showed a non-dilated left atrium containing a rounded hyperechoic mass measuring 25*17mm attaching to the interatrial septum, not protruding into the mitral valve, evoking a myxoma. Otherwise, left ventricular filling pressures and LV systolic function were normal (Figures 1 and 2).

Based on the echocardiography, an indication of a surgical procedure was established and the patient benefited from an excision of the mass with simple post-operative aftereffects (figure 3).

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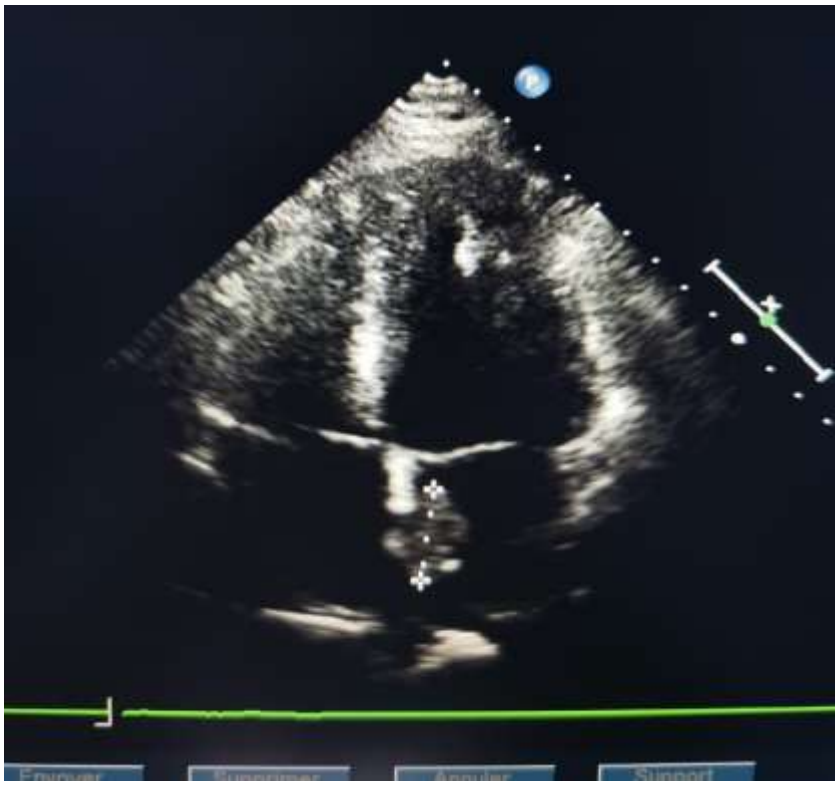

Figure 1:- Rounded mass located at the level of theinteratrial septum on an apical section with 4 cavities.

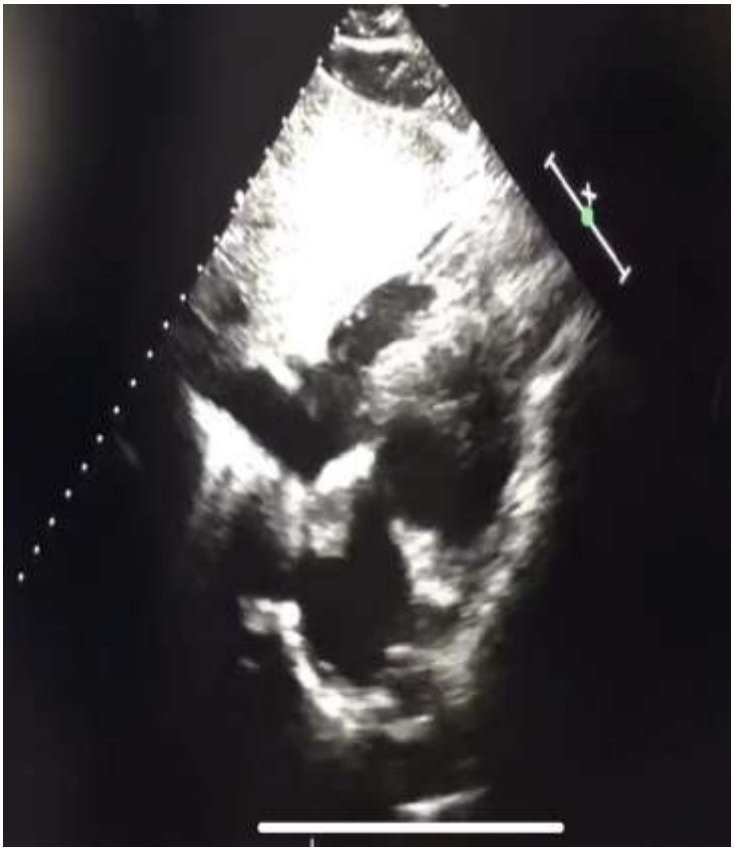

Figure 2:- Rounded mass located at the level of the interatrial septum on a subcostal section.

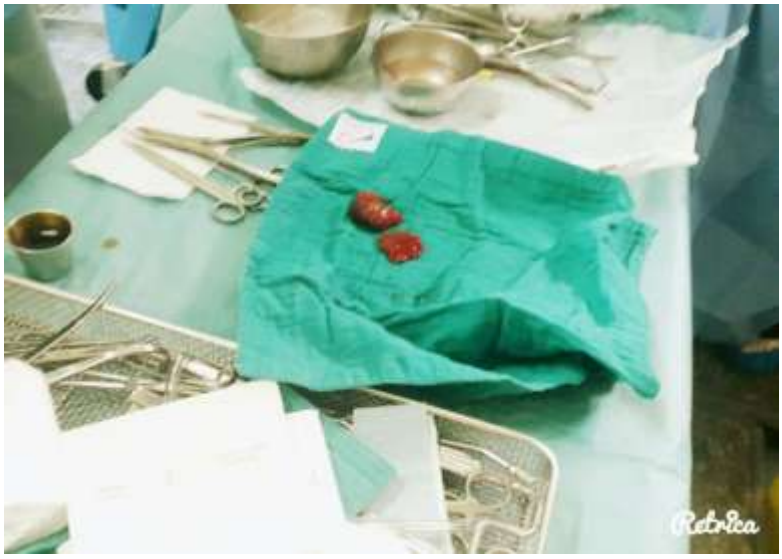

Figure 3:- Surgical specimen of the interatrial septummyxoma.

Discussion:-

Myxomas represent 70% of benign primary cardiac tumors, with a clearly predominant localization in the left atrium (75 to 80%) as opposed to the right atrium (15 to 20%) or in the ventricles (<5%). It is a usually unique benign tumor developed from embryonic remains sequestered mainly in the oval fossa of the intra-auricular septum [1]. Most myxomas occur sporadically, however they may be familial and occasionally (3 to 10%) related to a particular syndrome called "the Carney complex," an autosomal dominant condition characterized by endocrinopathy (Cushing syndrome or acromegaly) and spotty skin pigmentation. The Carney complex occurs at a younger age and should be considered when cardiac myxomas are discovered in atypical locations in the heart [2].

Patients with cardiac myxomas have diverse clinical presentations, which in part depend on the location and morphology of the tumor and its tendency to embolize. Approximately 20% of patients with cardiac myxoma are asymptomatic [3].

The average age at diagnosis is generally between 30 and 60 years old with a clear female predominance. Most symptomatic patients present with one or more of the clinical triad features of myxoma (cardiac, systemic, and embolic symptoms) [1].

Cardiac symptoms represent the first element of the classic syndromic triad of left atrial myxoma. They are present in 70 to 80% of cases (dyspnea and table of pulmonary oedema, malaise, postural syncope or effort) by valvular obstruction when the tumor is large and prolapses in the mitral valve. Embolic manifestations are in 30 to 45% of cases, often inaugural and revealing, related to the migration in the cerebral circulation (50%), ophthalmic, coronary or systemic of a fragment or a thrombus formed in contact with it.General signs such as fever asthenia arthralgia and myalgia due to tumor secretion of cytokines such as interleukin-6 and are the cause of hematological disturbances such as inflammatory anemia, hyperleukocytosis and increased sedimentation rate [4].

Trans-thoracic echocardiography allows an excellent morphological study of myxoma (seat, shape, base of implantation, size and mobility) and its impact on the heart. It is the reference examination given its great accessibility and sensitivity which is approximately 95%. We distinguish two types of myxomas:

1. Rounded myxomas, circular in shape, welldelimited, not very mobile (52% of cases), and
2. Polyploidmyxomas, of irregular shape,mobile (48% of cases).

Trans-oesophageal echocardiography is useful in case ofsmall myxoma (sensitivity approaching 100%) or to assess the existence of athrombus in contact with the tumor [4.5].

The differential diagnosis is mainly done with the intracardiac thrombus, CT scan, MRI and transesophageal echocardiography are relevant examinations for diagnosis and differentiation with intracardiac thrombi. However, the definitive diagnosis of myxoma always remains histological [6].

Surgical excision should be performed as soon as CM is diagnosed and without delay, as the behavior of the tumor cannot be predicted and does not depend on how large and fragile it is [5].

Tumor resection must be complete, removing the myxoma, its pedicle and its implantation base, all with a minimum of manipulation in order to avoid any fragmentation and any risk of embolic migration. Generally, cardiac myxoma surgery has a good prognosis. [7].

Early mortality is low, less than 0.5%, and late morbidity is dominated by the risk of tumor recurrence. The rate of these recurrences varies between 4% and 7% for sporadic cases and between 10 and 21% for familial cases. This recurrence can be completely asymptomatic and justifies rigorous monitoring by periodic echocardiography and surgical revision in the event of a recurrence is formal and constitutes the only therapeutic alternative [8].

Conclusion:-

Myxoma is the most common benign cardiac tumor, often sporadic and symptomatic. Its diagnosis was disruptedby echocardiography. Its treatment is always surgical, consisting of excision of the entire tumor with very low morbidity and mortality. The long-term prognosis is dominated by the risk of recurrence which could be monitored through regular echocardiography.

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