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Case Study
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Cardiac Lymphoma: Case Report

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Abstract

We report the cases of forty five old year female who was admitted to the Emergency Department with a clinical picture of tamponnade and heart failure. An emergency echocardiograph showed an intra and extra-cardiac diffuse tumor with compression of great vessels. Echocardiographic and CT investigations gave information about an anatomical relations and extensions of this tumor. Histology confirmed the diagnosis, and allowed classification of the lymphoma in order to decide on treatment. Transthoracic echocardiography remains the key element in the acute diagnosis but the MRI and PET scans are used for follow-up.

Observation

It is a forty five old year women, treated for tuberculosis and has a Hepatitis C, who was hospitalized for emergency with cardiac failure, pretomponnade and respiratory distress for embolic complications (pulmonary embolism and thrombophlebitis) with a recent rapid worsening dyspnea. Transthoracic echocardiography performed in emergency showed an intra-cardiac mass in the right atrium and right ventricle, extended to septal tricuspid valve and to the pulmonary artery, measuring 67/16 mm with pericardial effusion in pretomponnade, ejection fraction was 70% (Figure 1). CT scan showed for an infiltrative mediastinal tumor located in the lodge Barely, aortopulmonary window, with irregular contours 57/66/44 driving back towards the periphery vascular axes, trachea and bronchi (Figure 2).

Results

The patient was operated in emergency by median sternotomy under cardiopulmonary bypass without aortic clamping because we found an invasive tumor located in the wall of all the heart and the great vessels (artery pulmonary, aorta, superior vena cava) we excised all tissues around the heart and vessels in order to decompress them and left the inaccessible tissues. The biopsy exam confirmed the diagnosis of the lymphoma grade B; the patient was referred for oncologist to receive chemotherapy, with a favorable clinical course, radiological and echocardiographic outside a late decline in ejection fraction (48%) secondary to Adriamycin. In the follow up after, 12 months, 5 years and 9 years, the patient was in a good way of remission.

Discussion

The primary cardiac tumors are rare: 0.001% to 0.03% of the cases in autopsy series [1]. This is in 75% of cases of benign cardiac tumors. Among the primary malignant cardiac tumors, primitive cardiac lymphoma is an exceptional situation, 5% of cases [2], with a hundred cases described in the literature [3,4]. The prognosis without treatment is bad, but seems improved if early diagnosis and treatment.

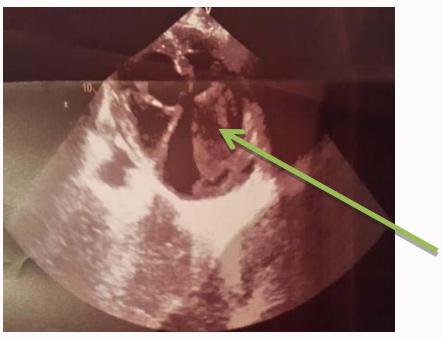

Figure 1: TTE showed an intracardiac mass.

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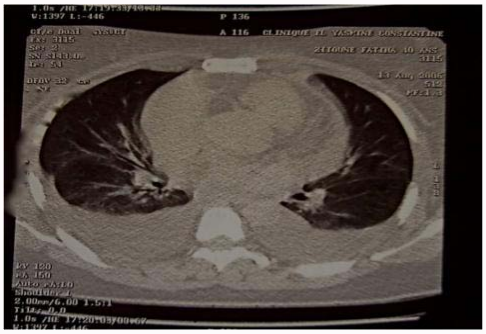

Figure 2: CT scan, invasive heart tumor.

Generally, the primitive cardiac lymphoma occurs in an immunocompetent patient. The average age at diagnosis is 62 years [3] twice as common in men than in women. The mode of revelation of these tumors is often associated with compression and invasion of the right heart chambers, producing an array of right heart failure with adiastolie. The other most frequent revelation modes are tamponade, chest pain, conduction disorders [5,6].

As was the case in our patients, who present an immunodeficiency (tuberculosis and hepatitis), the initial symptoms include mostly with dyspnea, right heart failure and tamponade. Echocardiography is the key of diagnostic of cardiac tumor is [7], the sensitivity in this disease is close to 100%, and furthermore, echocardiography is a good follow-up review to verify the tumor regression after treatment with chemotherapy. The isolated myocardial involvement is found in 50% of cases, association with pericardial effusion in 40% of cases, isolated pericardial effusion in 10% of cases. The right atrium is the most often invaded heart chamber (74% of cases) [3]. However, the invasion of the left cardiac structures is rare (7% of cases) [3], in our patient we found an invasion of the right atrium and the right ventricle, the infundibulum and the great vessels (pulmonary artery, aorta, and superior vena cava). The diagnosis of non-Hodgkin lymphoma type B was obtained by biopsy, chemotherapy treatment introduced in emergency, which allowing rapid regression of the tumor mass and an improvement in symptoms. The control is based primarily on the clinic, the echocardiography which shows a regression of the tissue invasion of the tumor.

Conclusion

The primitive cardiac lymphoma is the rarest primary cardiac tumor (1.3%). This is usually a systemic secondary location, rather than lymphoma heart primitif. Early diagnosis and early chemotherapy treatment are main conditions for of a good evolution of this disease.

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