Right atrium myxoid chondrosarcoma

Condrossarcoma mixóide de átrio direito

Cláudio Ribeiro da CUNHA¹, Paulo César SANTOS², Samuel Padovani STEFFEN³, Cecília Borges de SOUZA³

Abstract

We are reporting a case of a 46-year-old woman, Caucasian, with hypertension and a primary diagnosis of infectious endocarditis. A transthoracic echocardiogram was performed, suggesting right atrium myxoma. The patient was submitted to surgery, which found a tumor mass with a jelly-like exterior. The mass was sent for anatomopathological analysis, which diagnosed a myxoid chondrosarcoma tumor. After the surgical resection, the patient achieved complete recovery with no signs of recidivation after 14 months.


1. Specialist in cardiovascular surgery – Hospital das Clínicas – Federal University of Uberlândia.
2. Ph.D, cardiovascular surgeon – Hospital das Clínicas – Federal University of Uberlândia
3. Graduate Student of Medicine

This study was carried out at Federal University of Uberlândia, Uberlândia, MG, Brazil.

Correspondence Address:
E-mail: paulocsantos@mac.com

Article received on March 17th, 2007
Article accepted on October 19th, 2007
INTRODUCTION

Primary cardiac tumors present epidemiological patterns that are practically established, although the symptomatology is not specific. The symptoms of the patients, when presented, are imprecise, suggesting myocardial, pericardial or valvular diseases [1]. These tumors are rare, with a serial incidence of necropsy range of 0.0017% to 0.28%, being about 20 times less frequent than heart metastatic tumors [1]. The differentiation between primary and metastatic tumors must be established according to the clinical context of the patient [2].

Concerning the benign or malignant aspect, metastatic tumors can show invasive and penetrating images and involvement of more than one cavity and mediastinal invasion. However, the definitive distinction often occurs during surgery or necropsy.

CASE REPORT

A 46-year-old female patient, Caucasian, with over 20 years of hypertension, arrived at the Hospital das Clínicas of the Federal University of Uberlândia with a primary diagnosis of infectious endocarditis due to a transthoracic echocardiographic image suggestive of tricuspid valve vegetation. Another transthoracic echocardiogram was performed, which suggested the existence of right atrium myxoma. During her period of stay in the hospital, the patient developed severe thrombocytopenia (14 to 49 thousand) and microcytic hypochromic anemia. The hematological presentation of the patient was investigated through iliac crest myelogram with discreet results of megakaryocytic hyperplasia and absence of medullary iron clusters, maintaining a non-conclusive platelet presentation. The patient underwent surgery with the establishment of hypothermia at 28°C with myocardial protection through infusion of cold blood cardioplegia solution at 4°C with warm reperfusion.

After right atrium incision, a tumorous mass with friable gelatinous mucus was observed (Figure 1), measuring approximately 8cm (Figure 2). It was submitted to lyophilization for anatomopathological examination. The report suggested malignant mesenchymal tumor.

An immunohistochemical examination was performed with an avidin-biotin-peroxidase technique compatible with myxoid chondrosarcoma. The patient developed spontaneous remission of the thrombocytopenic presentation after complete resection of the neoplasia. An outpatient follow-up was performed after 14 months without signals of tumor recurrence.

Resumo


DISCUSSION

Primary heart sarcomas are rare, constituting less than 25% of all cardiac neoplasias; however, among the malignant tumors, sarcomas are the more frequent histological type, and they present dissemination potential and local invasion [3]. The right chambers are the most common places of origin of the sarcomas [4]. Lynch et al. [5] have shown that cardiac tumors are predominant in women, being less frequent in the ventricles and more common in the right atrium. When they begin their growth on the atrium’s external side, they are usually malignant tumors.

Sarcomas are derived from mesenchymal tissue, and they have variable morphology, being that all histological types can be found in the cardiac site [6]. Difficulty in receiving treatment and rapid progression to death are characteristics of sarcomas [7].

Extraskeletal myxoid chondrosarcoma affects adults in the 3rd and 5th decade of life, with a predominance in men. The majority of lesions are located in a deep site, consistently intramuscular and mainly in lower limbs [8].

Primary cardiac chondrosarcoma is extremely rare and possibly derived from multipotent mesenchymal stem cells that underwent a malignant differentiation process in cartilage [9].

There are few cases in the medical literature about primary cardiac chondrosarcoma [10].

REFERENCES