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Case Report

Delayed diagnosis of giant cardiac myxoma with atypical clinical presentation: when we do not see what we do not look for

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Abstract

Myxomas are the most typical cardiac benign tumors and usually present with an embolism phenomenon. They may be asymptomatic. A prompt diagnosis is crucial to avoid severe cardiac and neurological complications. We describe the case of a 49-year-old female patient with an unusual clinical presentation of a left atrial myxoma, which delayed the diagnosis and management. The low incidence and the extreme variety of the clinical picture make careful documentation of these cases necessary for early recognition and targeted management.

Keywords: cardiac tumors; delayed diagnosis; myxoma; dyspnea; cough

Introduction

Primary cardiac tumors are infrequent, with a prevalence between 0.01 and 0.03%. Myxomas are the most recurring of these tumors and represent over 50%. They can lead to diverse clinical presentations, from incidental findings to significant alterations in cardiac function, arrhythmias, and embolic events.

Due to their mobile nature, myxomas can prolapse and cause embolisms, obstacles of intracardiac orifices, or systemic manifestations associated with cytokine discharge [1, 2].

We present the case of a 49-year-old female patient with an exceptional clinical presentation of a left atrial myxoma, which prevented clinicians from quickly arriving at a diagnosis.

Our case serves to remind us of the extreme variability of the clinical presentations of this benign tumor, which must be rapidly diagnosed to prevent cardiac and neurological complications [3].

Case Presentation

A 49-year-old healthy female patient reported persistent dry cough for two years without associated dyspnea. She underwent multiple investigations, including antacid therapy, gastroscopy (no gastroesophageal reflux disease identified) and a pulmonary follow-up. Bronchodilators were introduced for allergic asthma without any improvement noted. Thus, non-contrast thoracic CT scans were performed in December 2022 and April 2023 without identifying a pulmonary lesion. After two years, the patient progressively developed dyspnea on exertion and trans-thoracic echocardiography was performed. A sizeable atrial mass with an interatrial pedicle was identified, and the patient was addressed for surgical excision of the suspected myxoma. Retrospective analysis of the CT scans identified the hypodense left atrial lesion on both exams. After median sternotomy and through a right atrial approach with a *fossa ovalis* incision, we successfully resected a 9x6 cm pedunculated mass (Figure 1). The inter-atrial septum was reconstructed with a pericardial patch. Histopathology confirmed the presumed diagnosis of myxoma, and the patient was discharged five days later, remaining free of any symptoms six months later.

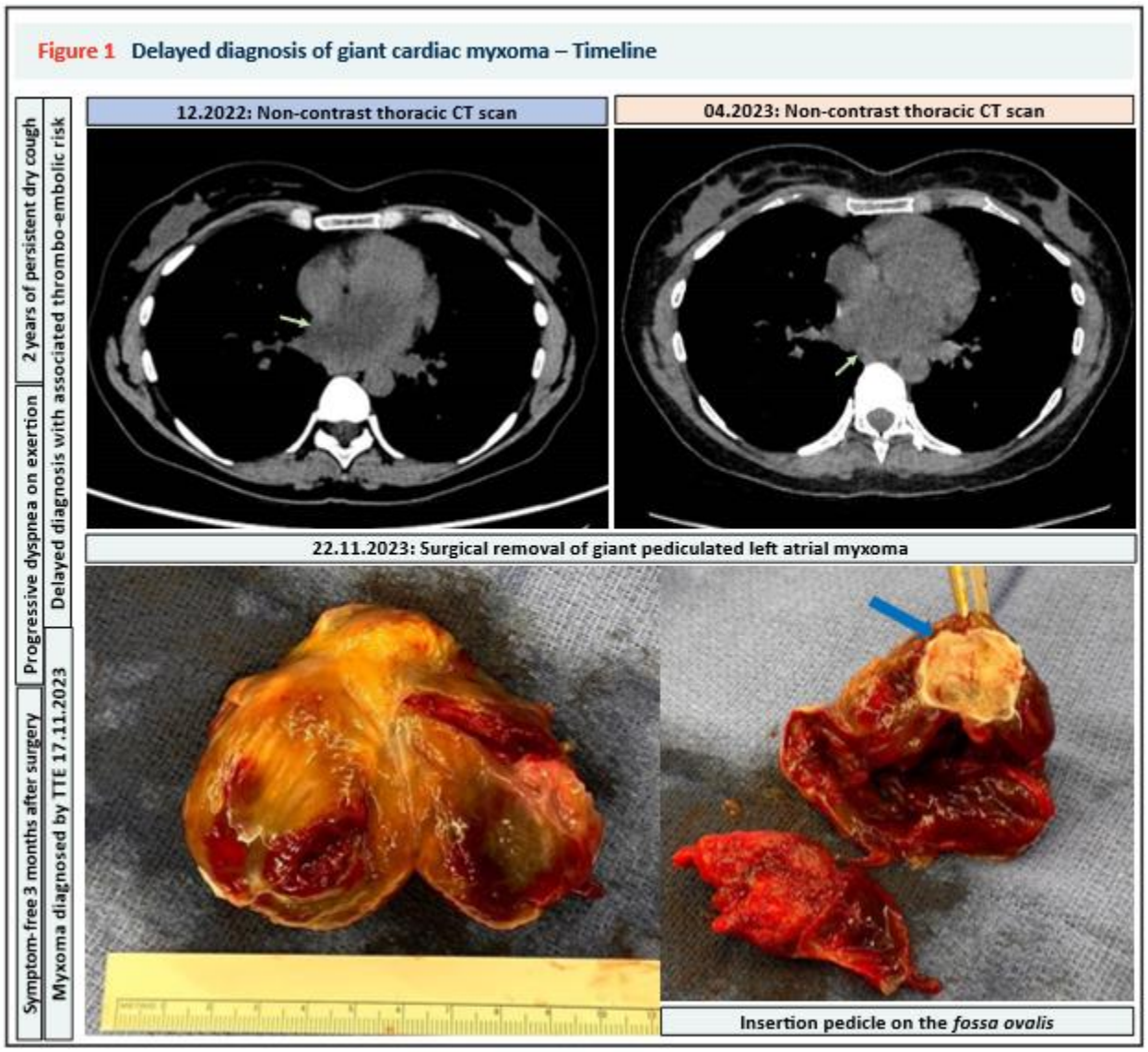

Figure 1: Delayed diagnosis of giant cardiac myxoma – Timeline

Discussion

Primary cardiac tumors are predominantly benign, with 50% being cardiac myxoma, predominantly located in the left atrium and originating from the *fossa ovalis*. The remnant is papillary fibroelastoma (26%), fibromas (6%), lipomas (4%), and others, including calcified tumors, hemangiomas, teratomas, cysts, and rhabdomyomas [4-6].

Cardiac tumors can present as incidental findings or through hemodynamic manifestations: cardiac outflow obstruction, arrhythmias, pericardial effusion, and embolisation [2, 7].

It usually presents at 50, mainly between the third and sixth decades of life [3], with a female predominance of 3:1. It has many nonspecific symptoms such as fever, weight loss, arthralgia, and increased circulating IL-6 [3, 8]. Neurological symptoms include syncope, stroke, and seizures [9, 10]. It can even present with angina and be mistaken for coronary artery disease (CAD) [8]. Physical examination may be fully noncontributory.

Our patient falls into those cases of missed diagnosis. She had been having a dry cough for two years, which was investigated exclusively as being of pulmonary or gastroesophageal reflux origin. Even the chest CT, performed with another diagnostic question, did not see this large mass. Cardiac myxomas can be overlooked due to the nuanced and nonspecific nature of their symptoms, leading to delays in diagnosis and management [11].

Conclusion

Cardiac myxomas may arise as incidental discoveries. Relatively infrequent, they are the most expected type of primary cardiac tumor, with an effective female predominance. Due to the nonspecific nature of their symptoms, cardiac myxomas can be overlooked or diagnosed tardily [11], highlighting the need for increased awareness. This first case of myxoma presenting with dry cough for two years without dyspnea misled the initial investigations and the differential diagnosis. Thus, the patient remained symptomatic and was exposed to significant thrombo-embolic risks associated with the myxoma [2]. Besides, noticing the myxoma with non-contrast thoracic CT scans in isolated dry coughing was more challenging. Therefore, we encourage clinicians to actively seek myxoma in case of persistent dry cough without pulmonary etiology and rapidly proceed to echocardiography if suspected.

Transverse views of CT of the chest. Green arrows point to the mass in the left atrium, which has a lower density than the blood. It is suspected

to be a myxoma but missed twice because of the atypical clinical presentation with isolated dry cough.

Specimen analysis of the resected mass. The blue arrow points to the insertion pedicle on the *fossa ovalis*.

Ethical Statement

Patient consent was obtained.

Conflict of Interest Statement

Authors have nothing to disclose about commercial support.

Data Avaibility Statement

There are no new data associated with this article.

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