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PRIMARY PERICARDIAL SARCOMA: CONTRIBUTION OF CARDIAC MRI TO DIAGNOSIS WITH EARLY RECURRENCE—A CASE REPORT

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ABSTRACT

Pericardial sarcomas are rare malignant tumors with a poor prognosis. Imaging, particularly cardiac MRI, plays a central role in their initial evaluation and post-treatment follow-up. We present the case of a patient who underwent surgery for pericardial sarcoma and experienced local recurrence and secondary metastases within the first month after surgery. This case illustrates the aggressiveness of these tumors and the need for close radiological follow-up.

KEYWORDS

Pericardial sarcoma, cardiac MRI, tumor recurrence, metastases, cardiac imaging

MAIN ARTICLE

Introduction

Primary tumors of the pericardium are rare. Sarcomas are the most common malignant tumors in this location, with a high metastatic potential. Diagnosis is based on imaging and histological confirmation. Cardiac MRI allows for detailed assessment of tumor characteristics and therapeutic follow-up. We report a case of early pericardial recurrence complicated by pleurohepatic and bone metastases, illustrating the highly aggressive nature of these tumors.

Results

A 42-year-old man with no significant medical history presented with exertional dyspnea and chest pain. Echocardiography revealed pericardial effusion with suspected pericardial mass. Initial cardiac MRI showing the pericardial tumor with T2 hypersignal related to the myxoid component, enhanced after gadolinium injection.

The postoperative course was marked by the appearance of secondary pleural and bone metastases.

Discussion

This case illustrates the rapid growth of certain pericardial sarcomas, with local recurrence and metastases within an exceptionally short period (1 month) after surgery.

Imaging (CT and MRI):

- Enables early detection of local recurrence
- Assesses tumor vascularization and response to treatment
- Differentiates between recurrence and post-surgical changes

Importance of close follow-up

Follow-up by MRI from the first month post-surgery is justified in these cases, given the risk of early spread. Systematic evaluation of the pleuro-pulmonary and bone axes should be included in the assessment.

Conclusion

Pericardial sarcomas, although rare, are particularly aggressive tumors. Cardiac MRI is a key tool for initial diagnosis and close follow-up. This case demonstrates that recurrence and metastasis can occur within a very short time frame, highlighting the importance of a rigorous monitoring protocol starting in the immediate postoperative phase.

FIGURES:

Figure 1: Axial MRI T2-weighted images showing the pericardial tumor with T2 hyperintensity related to the myxoid component.

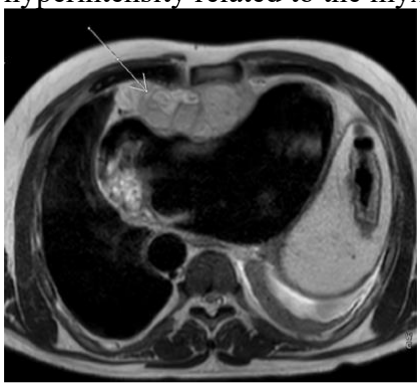


Figure 2: Axial T1 FATSAT GADO MRI showing the pericardial tumor enhanced after gadolinium injection

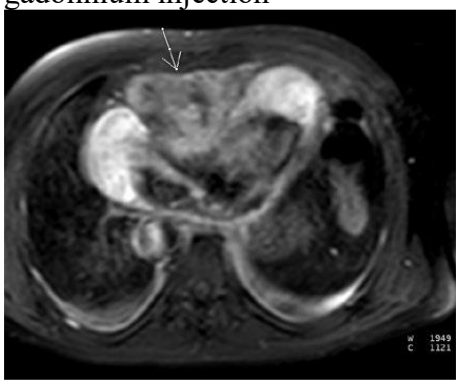
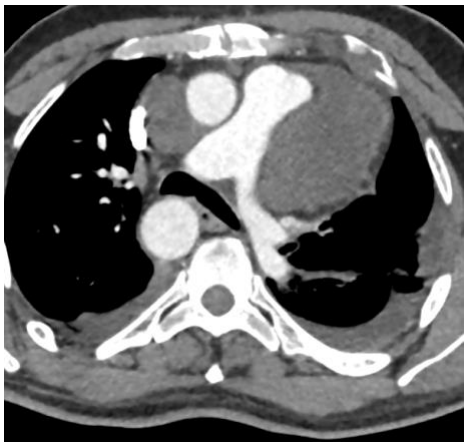


Figure 3 : Axial chest CT scan showing local recurrence with secondary pleural and bone involvement.



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