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Things are not always what they seem: a case of endocarditis turned sarcoma

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Introduction: Primary malignant tumours of the heart are a rare diagnosis, and there are scanty data on the treatment and survival of such patients.[1,2]

Case report: 47-year-old female patient was examined in the Emergency Department (ED) due to dyspnea, exercise intolerance, and palpitations. Two weeks prior, she had an inflammatory process in her tooth. A FoCUS was performed in the ED and it verified significant mitral regurgitation and the patient was hospitalized. Upon admission, the patient was hemodynamically and rhythmically stable in sinus rhythm. Echo showed a floating mass measuring 11x8 mm was described on the posterior mitral cusp, primarily consistent with vegetation, with severe MR (EROA 0.5 cm^2, RV 61 ml, VC 8 mm); but also elevated filling pressures and inflow restriction (mean PG 13 mmHg). A TEE was performed, which showed on the posterior mitral leaflet (P2/P3 scallop), a larger (about 9-10 mm) floating formation, thought to be vegetation. Based on these findings, infectious endocarditis was suspected. Three blood cultures were obtained, and empirical vancomycin and gentamicin therapy (for penicillin allergy) was started. PET/CT was performed which showed an oval zone of pathological FDG metabolism in the projection of the right heart at the junction of the right atrium with the inferior vena cava. Laboratory findings showed only slightly elevated inflammatory parameters, with an elevated value of natriuretic peptide. All blood cultures were sterile. Given all of the above, the patient was presented to the Department of Cardiac Surgery and the patient was accepted for surgery. The patient underwent excision of the neoplasm of the interatrial septum, mitral and tricuspid valves, reconstruction of the interatrial septum with xenopericardium and implantation of a mechanical prosthesis in the mitral position, implantation of a mechanical prosthesis in the tricuspid position with occlusion of the left atrial auricle. Undifferentiated pleomorphic sarcoma was verified in the PHD material sampled during the operation. Oncologists were consulted and recommended six cycles of adjuvant chemotherapy according to the aromatase inhibitor protocol (doxorubicin and ifosfamide). After completing 6 cycles of chemotherapy, a control CT scan did not show any signs of malignant disease.

Conclusion: Malignant cardiac tumors are associated with a poor prognosis and evidence of the best treatment is lacking. Combining surgical resection with adjunctive therapies such as chemotherapy and radiotherapy can improve symptom control and may extend survival in selected patients.

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