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Rare Intra-Aortic Metastasis of Colon Carcinosarcoma: Case Report and Review of the Literature

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Abstract **Case Report**

The aorta may be affected by primary and secondary tumors, as well as by nonneoplastic conditions that present as a periaortic mass. Secondary tumors of the great vessels are rare and malignant in the majority of cases. Because of their rare incidence, deep location, relatively silent initial growth, and both clinical and imaging manifestations that mimic thrombosis, the diagnosis of a secondary tumor of a large vessel can be a difficult challenge. We report a case of aortic metastasis from sarcomatoid carcinoma of the colon. This localization which remains a rare entity and often diagnosed at the metastatic stage. CT scan and transthoracic ultrasound were performed and showed moderate stenosis. The patient was operated. The pathological diagnosis was metastatic carcinosarcoma. We could not detect the origin of malignancy despite additional examinations. These findings emphasize the importance of a precise plan of action for these rare disease.

Keywords: Intra-aortic tumour, carcinosarcoma, metastasis.

INTRODUCTION

A floating mass arising from the aortic wall is rare. Although a thrombus is a main pathological feature of an intra-aortic floating mass, few rare cases of metastatic malignancy have been reported [1, 2, 3]. The inferior vena cava is the most common location for large vessel sarcoma, followed by the pulmonary artery, with aorta being the least frequent location [4].

It can be a difficult challenge. In the following paragraphs. We describe a patient with an intra-aortic floating mass that was diagnosed as metastatic carcinosarcoma.

CASE REPORT

We report a case of sarcomatoid carcinoma of the cecum in a 49-year-old man with a history of poorly monitored hypertension. The abdominal-pelvic CT scan revealed thickening of the colonic wall with right ureterohydronephrosis.

A right hemicolectomy was performed. The surgical specimen revealed a malignant, undifferentiated tumor proliferation and the immunohistochemical study was in favor of a sarcomatoid carcinoma.

The computed tomography scan revealed an intra-aortic floating mass with a stalk arising from the descending aortic wall, which was thought to be a thrombus, followed by a trans-thoracic ultrasound done at the University Hospital of Marrakech which objectified: Irregular tissue mass after the departure of the left subclavian with acceleration of the flow at its level responsible for a moderate stenosis.

It had the characteristics of a thrombus rather than a neoplastic tumour on magnetic resonance imaging scan. Under extracorporeal circulation, the descending aorta was cut open, and the mass was resected, and the aortotomy was sutured closed. The pathological diagnosis revealed an metastasis of carcinosarcoma, not a thrombus.

5 fluorouracil and adriamycin chemotherapy was started with good tolerance except for digestive complications after each cycle. Chemotherapy was interrupted due to the deterioration of the patient's general condition, and the patient subsequently died.

DISCUSSION

Secondary involvement of the aorta can occur from a wide variety of malignant neoplasms and is more common than primary aortic tumors. In the chest, lung cancer, esophageal cancer, and thymoma are the most common malignancies to present with aortic invasion [5].

In the abdomen, retroperitoneal sarcomas and germ cell tumors may also invade the aorta and result in aortic rupture, aneurysm, or pseudoaneurysm formation [6].

An intra-aortic floating thrombus with a stalk arising from the aortic wall is rare, and a floating malignancy is even rarer. Thrombi and neoplasms are known as intra-aortic masses. Treatments for an intra-aortic mass include antiplatelet and anticoagulant therapy and surgery [2, 7, 8]. If only a thrombectomy is performed, the risk for recurrent thrombus formation remains. Stent graft placement or graft replacement is performed to exclude the abnormal intima to prevent thrombus formation [7].

An intra-aortic tumour may be a primary or a secondary tumour. A primary aortic tumour may be benign, e.g. a myxoma, fibromyxoma, papillary fibroelastoma and lipoma, or malignant, e.g. undifferentiated sarcoma, malignant fibrous histiocytoma, angiosarcoma, leiomyosarcoma, fibrosarcoma, epithelioid hemangioendothelioma and myxofibrosarcoma [9].

A secondary tumour, which involves the direct malignant invasion of organs around the aorta, such as the lungs, oesophagus and retroperitoneal organs, is more common than a primary tumour [9].

A feasible strategy for malignancy would have been tumour resection and graft replacement, and treatment for the primary origin of malignancy should have been started immediately. However, the primary origin of malignancy could not be detected despite additional examinations and thus we could not treat the malignancy [10].

CONCLUSION

An intra aortic mass must be differentiated from a thrombus for an appropriate therapy. Subtle imaging features like contrast enhancement and increased metabolic activity may provide clues for the differentiation between tumor and thrombus.

Finally, when in the presence of a neoplastic mass involving the aorta, it is important to remember that secondary involvement from thoracic and abdominal malignancies is more common than primary tumors, and it should be familiar with the clinical and imaging manifestations of these rare tumors.

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