

Uterine Leiomyosarcoma: Infrequent Cardiac and Brain Metastasis A Case Report

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ABSTRACT

Uterine neoplasm metastases to heart is infrequent, especially from uterine cancer, although it is possible because leiomyosarcoma is very invasive. We present a case of a 33 years old woman with 9 months evolution of this neoplasm. By cardiac and brain symptomatology, this patient was diagnosed with cardiac and brain tumors in imaging studies. The patient underwent tumors resection by cardiac surgery and stereotaxic procedure and subsequent chemo and radiotherapy, without neurological and cardiac symptoms in her evolution.

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Introduction

Uterine leiomyosarcoma is a mesenchymal tissue neoplasm with poor prognosis in advanced stages. Its metastasis to lungs, bone and brain are common, however the metastasis to heart are most infrequent with only few cases reported in the medical literature (1-3). Primary cardiac tumors usually are benign, and malignant tumors metastasis are uncommon but resection is

required to prevent embolic events and heart failure (3-5).

Case Presentation

This case report describes a thirty-three-year-old woman with 9 months evolution uterine leiomyosarcoma who did not accept abdominal hysterectomy with salpingo oophorectomy by unsatisfied parity. She was referred to Tertiary Medical Care Hospital with heart failure symptoms. The study

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protocol consisting of an echocardiogram, Computed Axial Tomography (CAT) an Magnetic Resonance (MR) found a cardiac tumor pedunculated in right ventricle from interventricular septum with obstruction in right output ventricular tract and pleural effusion. The Positrons Emission Tomography (PET) confirm this diagnosis (Figure 1).

The patient underwent tumor resection by open heart surgery with extracorporeal circulation support. In beating heart was opened the right atrium and then, the tumor was located through the tricuspid valve and a 8.0 x 5.0 x 2.5 cm mass was resected from interventricular septum. The histological study reported a mesenchymatous neoplasia with hyperchromatic vesicular nuclei and eosinophilic cytoplasm compatible with leiomyosarcoma Grade I (FNCLCC), (Figure 2) . The postoperative period was satisfying as the patient was discharged from Intensive Care Unit without complications to continue surveillance in Medical Oncology

Department. After 4 weeks the patient presented with generalized convulsions. Imaging studies (CAT and MR) demonstrated brain metastatic activity (Figure 3). The patient underwent tumor resection by stereotaxic procedure without complications and then chemo and radiotherapy was initiated with partial remission of neurological events.

Discussion

Cardiac metastases is less frequent than primary cardiac neoplasm, due to early diagnosis of neoplasia in distant organs from heart, nevertheless cancer diagnosis later increases the metastases risk in other organs, like our patient that until showed cardiac symptoms was referred to tertiary hospital with complex technology to make the specific cardiac diagnosis, and only after cardiac surgery when patient showed neurological symptoms was made the brain metastasis diagnostic.

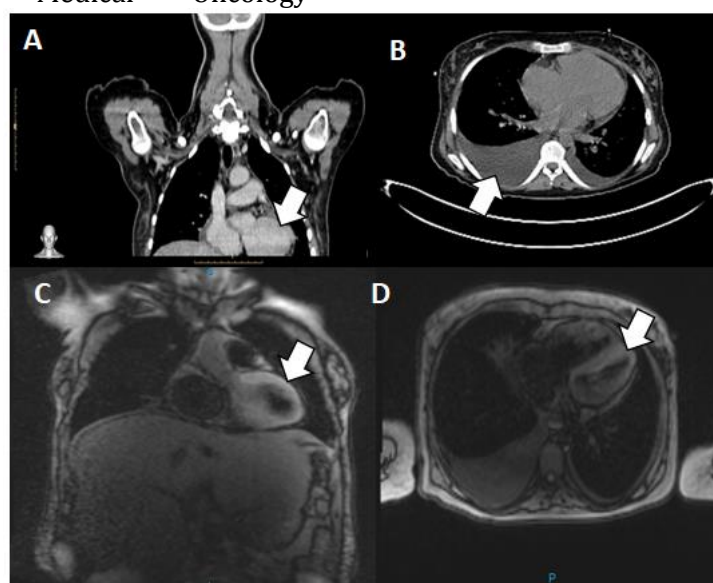


Figure 1. RM and PET Images. Sagittal view (A, C) and axial view (B, D) show a tumor in right ventricle and pleural effusion (Arrows).

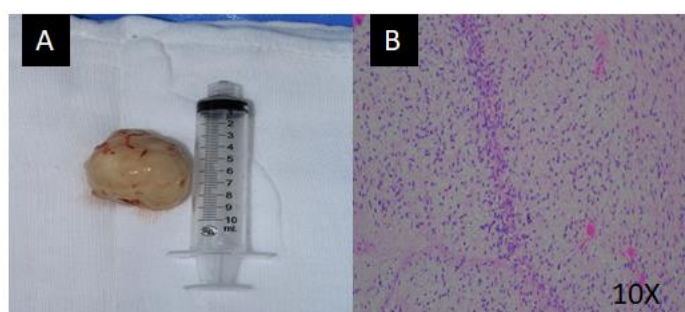


Figure 2. Smooth consistency tumor with small hemorrhagic areas (A); histological hematoxylin eosin stain showing mitotic spindle cells and focal necrosis (B).

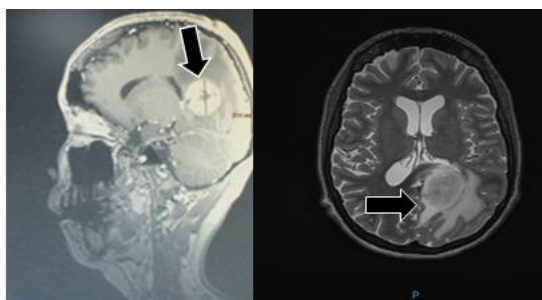


Figure 3. Magnetic Resonance Image showing brain tumor in axial and sagittal section (arrows).

Obviously, to avoid cancer progression it is necessary early resection of any tumor in abdominal region and so, avoid metastatic activity, but when treatment of cancer is delayed, always it must be make screening of possible metastases in thorax and brain with images studies before patients show suggestive symptoms, especially in leiomyosarcoma that is very invasive and it is usually associated with cardiac metastasis. Fortunately, the cardiac and brain surgery approach was successful in our patient, who presented good evolution with chemo and radiotherapy treatment, currently in free disease status.

Despite cardiac metastases being less frequent than primary cardiac neoplasm, in

patients with delayed cancer diagnosis, the screening must take place with imaging studies in thorax and brain to implement prompt treatment.

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