



# Cardiac tumors: a rare clinical condition with rare treatment options

Valdano Manuel<sup>1,2^</sup>

<sup>1</sup>Cardiovascular and Thoracic Service, Complexo Hospitalar de Doenças Cardio-Pulmonares Cardeal Dom Alexandre do Nascimento, Luanda, Angola; <sup>2</sup>Clínica Girassol, Luanda, Angola

*Correspondence to:* Valdano Manuel, MD. Complexo Hospitalar de Doenças Cardio-Pulmonares Cardeal Dom Alexandre do Nascimento, Av. Pedro de Castro Van-Dúnem Loy, Luanda 1254, Angola. Email: valdanympub@gmail.com.

*Comment on:* Usami M, Takada K, Nakamura H, *et al.* Achievement of a durable response with eribulin for relapsed cardiac metastasis of uterine leiomyosarcoma after surgery: a case report and literature review. *Ann Palliat Med* 2022. doi: 10.21037/apm-22-536.

**Keywords:** Cardiac tumor; intracardiac mass; heart tumor; myxoma; malignant neoplasm

Submitted Oct 22, 2022. Accepted for publication Nov 10, 2022. Published online Jan 10, 2023.

doi: 10.21037/apm-22-1209

**View this article at:** <https://dx.doi.org/10.21037/apm-22-1209>

Primary cardiac tumors are rare, accounting for less than 0.01% of all tumors. In contrast, metastases (secondary) account for up to 21% of necropsy studies (1-4). I believe there are many more; they are underdiagnosed because symptoms depend on size and location.

Approximately 75% of primary tumors are benign and 25% are malignant (1,5). Among the known benign ones are myxomas, papillary fibroelastoma, lipomatous septal hypertrophy, lipomas, rhabdomyomas, and fibromas; the latter two are more frequent in children (3-5).

Sarcomas are the group of tumors that are the most common primary cardiac tumors, and among them, most common are the angiosarcoma, rhabdomyosarcoma, leiomyosarcoma, liposarcoma, and fibrosarcoma (4,5).

Myxomas account for 50% of benign tumors, and 90% are from the left atrium and 10% from the right atrium attached to the septum (5-7). Symptoms depend on its size; the bigger the size, the more symptomatic it is. There are cases when it even obstructs the mitral valve. In most cases, the diagnosis is made using echocardiography; in some cases, computed tomography or magnetic resonance imaging is necessary. For all tumors, the definitive diagnosis is histological. Treatment is surgical unless there are contraindications (1,2).

Approximately 75% of malignant heart tumors are

sarcomas, most of which are located on the right side, as opposed to benign tumors (1-5).

Metastatic cardiac tumors are at least four times more frequent than primary tumors because of blood dissemination or direct extension via the vena cava, similar to thrombus tumors in hepatocarcinomas. Usually, the primary tumor arises from the skin, lung, breast, kidney, lymphoma, and rarely from the uterus. Most metastatic implants are found in the pericardium; intracardially, they are found more frequently on the right side (1,5,8,9).

Symptoms highly depend on the primary tumor, and in some cases, signs of heart failure are more evident.

There are reports of metastases occurring years after the primary tumor is considered cured (9). In these cases, the diagnosis is more difficult.

The treatment of malignant tumors of the heart is challenging. A case of relapsed cardiac metastasis from uterine leiomyosarcoma after surgery responded to eribulin treatment (10). The authors present an interesting alternative option for this patient. Although this is a single case, we understand that despite its rarity, this option should be considered in larger studies. I salute my colleagues for the idea and result that opens up a new treatment option for these patients.

<sup>^</sup> ORCID: 0000-0001-5740-7707.

## Acknowledgments

*Funding:* None.

## Footnote

*Provenance and Peer Review:* This article was commissioned by the editorial office, *Annals of Palliative Medicine*. The article did not undergo external peer review.

*Conflicts of Interest:* The author has completed the ICMJE uniform disclosure form (available at <https://apm.amegroups.com/article/view/10.21037/apm-22-1209/coif>). The author has no conflicts of interest to declare.

*Ethical Statement:* The author is accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

*Open Access Statement:* This is an Open Access article distributed in accordance with the Creative Commons Attribution-NonCommercial-NoDerivs 4.0 International License (CC BY-NC-ND 4.0), which permits the non-commercial replication and distribution of the article with the strict proviso that no changes or edits are made and the original work is properly cited (including links to both the formal publication through the relevant DOI and the license). See: <https://creativecommons.org/licenses/by-nc-nd/4.0/>.

## References

- Hoffmeier A, Sindermann JR, Scheld HH, et al. Cardiac tumors--diagnosis and surgical treatment. *Dtsch Arztebl Int* 2014;111:205-11.
- Leja MJ, Shah DJ, Reardon MJ. Primary cardiac tumors. *Tex Heart Inst J* 2011;38:261-2.
- Tzani A, Doulamis IP, Mylonas KS, et al. Cardiac Tumors in Pediatric Patients: A Systematic Review. *World J Pediatr Congenit Heart Surg* 2017;8:624-32.
- de la Fuente J, Wang Y, Tan N, et al. Cardiac Masses (from a 15-Year Experience With 389 Surgical Cases). *Am J Cardiol* 2022. [Epub ahead of print]. pii: S0002-9149(22)01004-9. doi: 10.1016/j.amjcard.2022.09.013.
- Maraj S, Pressman GS, Figueredo VM. Primary cardiac tumors. *Int J Cardiol* 2009;133:152-6.
- de Oliveira AJM, Lordelo GC, da Silva SA, et al. Multiple cerebral aneurysms originating from previously resected cardiac myxoma. *Rev Ang de Ciênc. da Saúde* 2021;2:10-3.
- Manuel V, Pedro G, Gouveia J, et al. Giant left myxoma with mitral valve obstruction. *Clin Case Rep* 2022;10:e6406. doi: 10.1002/ccr3.6406.
- Burnside N, MacGowan SW. Malignant primary cardiac tumours. *Interact Cardiovasc Thorac Surg* 2012;15:1004-6.
- Manuel V, Dinato FJ, Gutierrez PS, et al. Cardiac metastatic endometrial stromal sarcoma 17 years after hysterectomy. *J Card Surg* 2017;32:636-8.
- Usami M, Takada K, Nakamura H, et al. Achievement of a durable response with eribulin for relapsed cardiac metastasis of uterine leiomyosarcoma after surgery: a case report and literature review. *Ann Palliat Med* 2022. [Epub ahead of print]. doi: 10.21037/apm-22-536.

**Cite this article as:** Manuel V. Cardiac tumors: a rare clinical condition with rare treatment options. *Ann Palliat Med* 2023;12(1):1-2. doi: 10.21037/apm-22-1209