



## A Very Rare Case of Cardiac Metastasis due to Breast Cancer

Nasso G<sup>1\*</sup>, Chieppa D<sup>2</sup>, Vignaroli W<sup>3</sup>, Larosa C<sup>2</sup>, Bonifazi R<sup>1</sup>, Bartolomucci F<sup>2</sup>, De Rosis MG<sup>4</sup>, Zingaro M<sup>2</sup>, Piscitelli L<sup>2</sup>, Robles G<sup>2</sup> and Speciale G<sup>1,3</sup>

<sup>1</sup>Department of Cardiovascular Surgery, GVM Care & Research, Anthea Hospital, Italy

<sup>2</sup>Ospedale Bonomo ANDRIA, Azienda Sanitaria BAT, Italy

<sup>3</sup>Department of Cardiovascular Surgery, GVM Care & Research, San Carlo di Nancy, Italy

<sup>4</sup>Azienda Sanitaria Bari, Italy

### Abstract

Heart and pericardium metastases are very rare, but the incidence is greater than primary cardiac tumors.

We present an uncommon case of a 73-year-old woman with diagnosis of breast cancer with lung metastasis came to our attention for an inferior STEMI.

After treating the coronary disease, we diagnosed cardiac metastasis with contrast echocardiogram and MRI.

Although rare, cardiac metastasis can occur and should always be considered in patients with a previous diagnosis of cancer.

### Introduction

Heart and pericardium metastases are very rare and generally associated with poor prognosis. However, the incidence is greater than primary cardiac tumors (30 times more frequent) [1]. Most cases are clinically silent and they are diagnosed only at autopsy [2,3].

We describe the case of a patient with breast cancer and coronary and endocardial disease.

### OPEN ACCESS

#### \*Correspondence:

Giuseppe Nasso, Department of Cardiovascular Surgery, GVM Care & Research, Anthea Hospital, Bari, Italy,  
Tel: +39. 347.81.59.178

Received Date: 09 Oct 2023

Accepted Date: 27 Oct 2023

Published Date: 01 Nov 2023

#### Citation:

Nasso G, Chieppa D, Vignaroli W, Larosa C, Bonifazi R, Bartolomucci F, et al. A Very Rare Case of Cardiac Metastasis due to Breast Cancer. *Ann Clin Case Rep.* 2023; 8: 2506.

ISSN: 2474-1655.

Copyright © 2023 Nasso G. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

### Case Study

We present an uncommon case of a 73-year-old woman with diagnosis of breast cancer with lung metastasis came to our attention for an inferior STEMI.

The patient underwent angiographic study that made clear the presence of a thrombosis of right coronary artery.

We performed firstly angioplasty on right coronary artery. Subsequently was evident a thrombosis of inferolateral and of inferior interventricular branch. We treated these stenosis' with a 6F aspiration catheter Eliminate (Terumo Europe) and then with angioplasty.

During the rest of hospitalization, we suspected the presence of a thrombosis of the lateral portion of the left ventricle and started anticoagulation therapy.

Deepening the examination, the diagnosis of thrombosis didn't seem correct and we Poned the suspicion of left ventricle hypertrophy and an echocardiography with SonoVue (Bracco International B.V.) contrast was performed with evidence of contrast uptake which definitively excluded the thrombotic nature of the lesion.

Cardiac MRI was performed to conclude the diagnosis process and highlighted the heteroplastic nature of the lesion with the final diagnosis of endocardial metastasis.

### Conclusion

Cardiac metastasis has been found in 1.5% to 20% of autopsies of cancer patients and in 0.2% to 6.5% of subjects in unselected autopsy series [1].

Cardiac metastasis can involve pericardium, endocardium and coronary artery.

Metastasis can cause heart attacks for direct involvement of coronary and for an external compression [4].

Therefore, although rare, cardiac metastasis can occur and should always be considered in patients with a previous diagnosis of cancer.

## References

1. Al-Mamgani A, Baartman L, Baaijens M, De Pree I, Incrocci L, Levendag PC. Cardiac metastases. *Int J Clin Oncol*. 2008;13(4):369-72.
2. Katalinic D, Stern-Padovan R, Ivanac I, Aleric I, Tentor D, Nikolac N, et al. Symptomatic cardiac metastases of breast cancer 27 years after mastectomy: A case report with literature review - pathophysiology of molecular mechanisms and metastatic pathways, clinical aspects, diagnostic procedures and treatment modalities. *World J Surg Oncol*. 2013;11:14.
3. Waller BF, Fry ETA, Hermiller JB, Peters T, Slack JD. Nonatherosclerotic causes of coronary artery narrowing - Part III. *Clin Cardiol*. 1996;19(8):656-61.
4. Nakamura T, Tamanaha Y, Matsumoto M, Ishida T. Coronary artery occlusion caused by cardiac metastasis. *Hear Lung Circ*. 2018;27(6):e86-7.