

# Relationship between Breast Cancer and Cardiac Myxoma

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## Editorial

Breast carcinoma is the most prevalent malignancy among women worldwide with over 2.3 million cases in 2020<sup>1</sup>. In these patients, additional imaging is often required to screen for metastases.

Atrial myxoma, similar to breast cancer, is frequently seen in young and middle-aged female patients. It is often diagnosed incidentally through radiologic imaging, as it can be asymptomatic<sup>2</sup>. Although the heart is included in the image on Thoracic Computed Tomography (CT) and Breast Magnetic Resonance Imaging (MRI), radiologists may not evaluate it in detail.

Alizadehasl A and Rahbar Z recommendations for screening echocardiography (Echo) are quite necessary, but this examination may not be sufficient in all cases<sup>3</sup>. In our department, we have detected a cardiac mass at left atrium on Thorax CT and Breast MRI of a patient who has breast carcinoma (Figures 1,2). There is no finding about this mass on Echo.

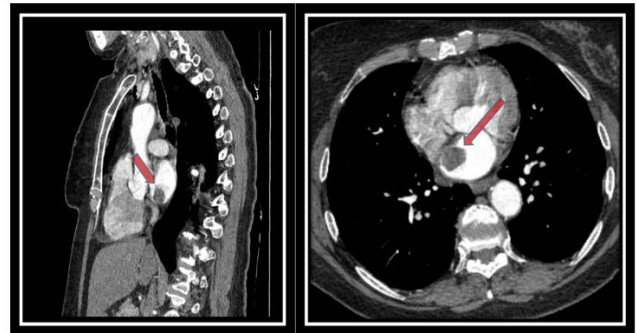


Figure 1. A hypodense mass was detected on contrast-enhanced Thorax CT as a filling defect (red arrow). Sagittal and axial images are seen.

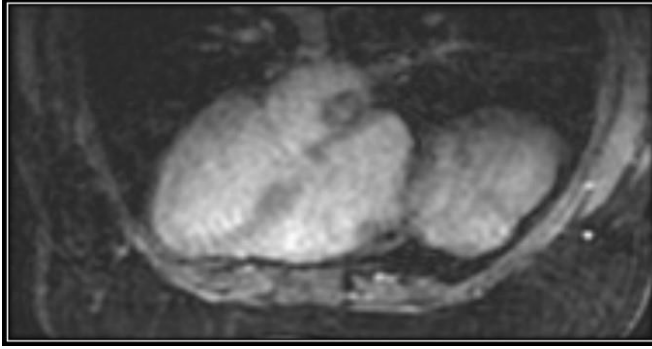


Figure 2. The round mass (red circle) at the left atrium was investigated on early phase of dynamic contrast enhanced Breast MRI.

In all whole-body, F18-fluorodeoxyglucose (FDG) PET/CT images taken for staging of the patient's breast cancer, FDG uptake in the soft tissue, which was evaluated to be consistent with cardiac myxoma in other imaging studies, was observed at a level similar to mediastinal blood pool activity (Figure 3).

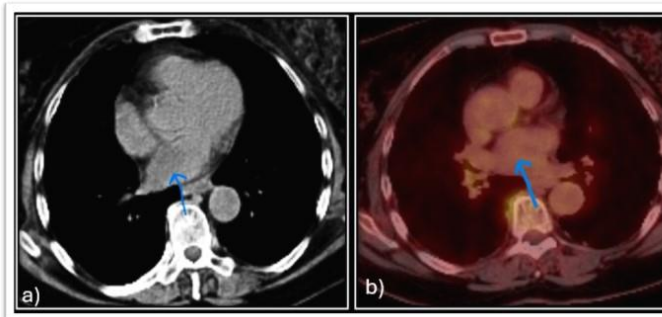


Figure 3. In the area corresponding to the lesion consistent with myxoma observed in the correlative CT component of hybrid imaging (1), FDG uptake at a level similar to blood pool activity was observed in the F18-FDG fusion images (b)

It is essential to investigate the link between atrial myxoma and breast cancer in adult patients without the Carney complex, as the frequency of this association will influence the approach of all units dealing with breast cancer.

#### REFERENCES

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2. Tetera W, Wilk A, Król W, Braksator W. Asymptomatic Left Atrial Myxoma. *J Cardiovasc Echogr.* 2022;32(2):116-118.