

Large Echogenic Right Atrium Masses in a Patient with Breast Invasive Ductal Carcinoma and Positive Lymph Nodes undergoing Adjuvant Chemotherapy

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BACKGROUND AND PURPOSE:

- There are over 10 million American cancer survivors.
- Cardiovascular toxicity of chemotherapeutic agents includes dysrhythmias, cardiac ischemia, cardiomyopathic congestive HF, pericardial, and PVD.
- Difficult to distinguish from disease not associated with cancer treatment, so determining a clear etiologic implication of chemotherapy is difficult.
- These patients are also at risk of having cardiac metastasis.

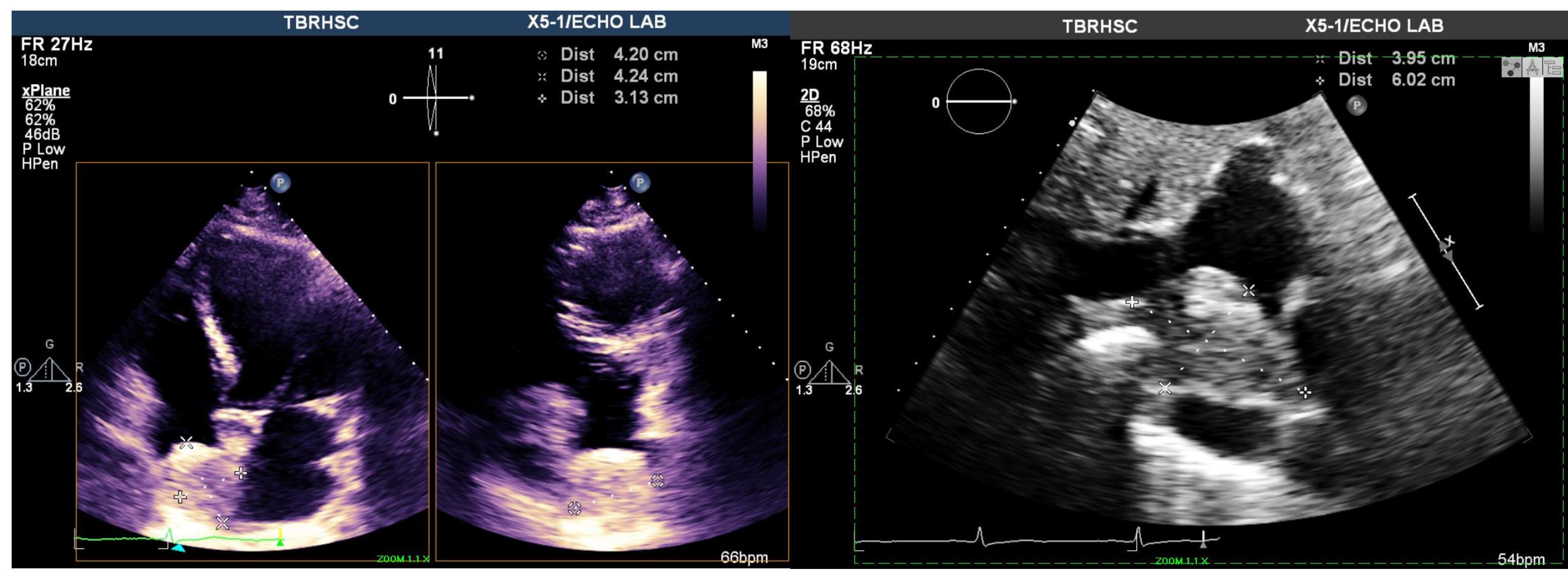
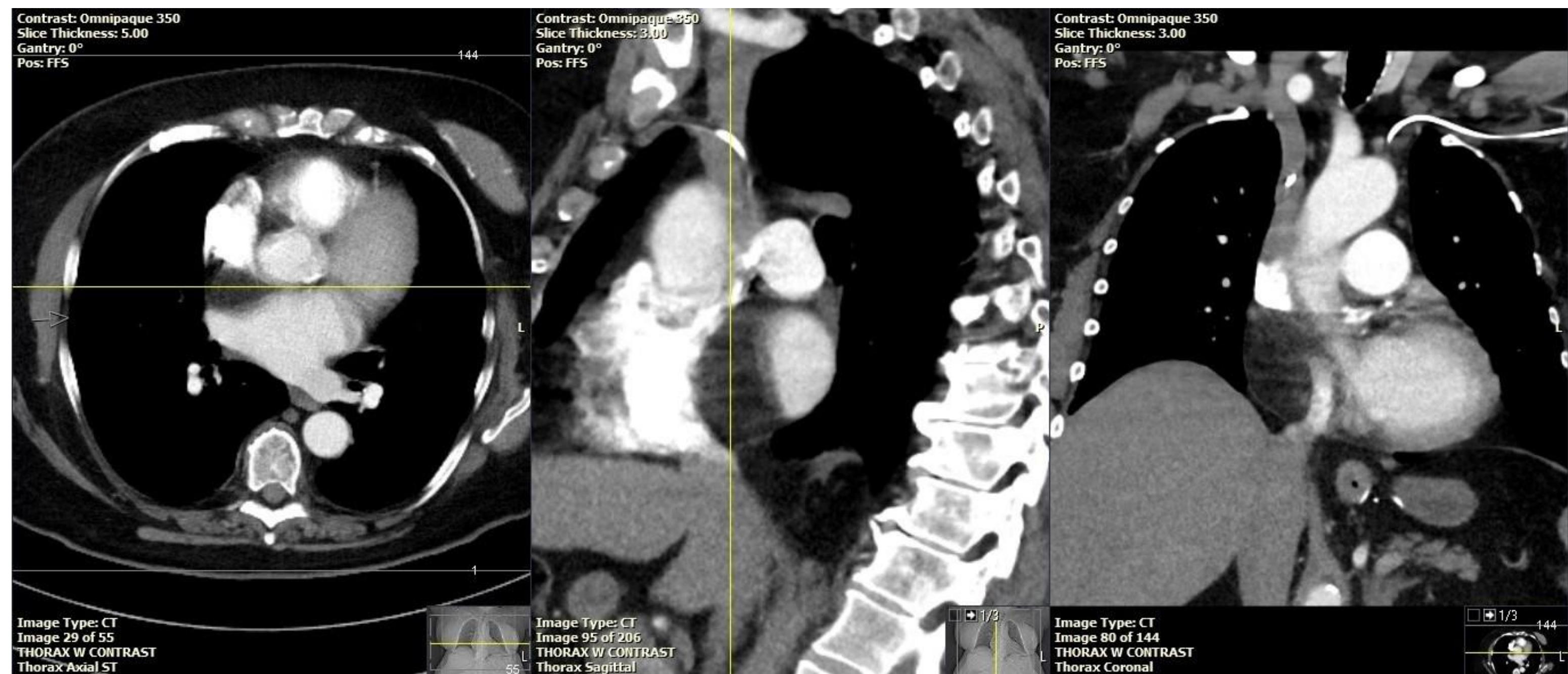


DISCUSSION:

- Asymptomatic hypertensive ex-smoker patient with obesity (BMI = 40kg/m²), started on AC-Taxol regimen: Doxorubicin (anthracycline) and Cyclophosphamide, followed by Paclitaxel.
- Risk for cardiotoxicity increases in women, on higher doses, preexisting cardiac disease, age >60 years, multiple CV risk factors (smoking, hypertension, obesity).
- Although cardiomyopathy has frequently been considered to occur late after exposure to anthracyclines, systolic dysfunction is usually evident within one year among adult patients who develop cardiomyopathy.
- She is prone to CV complications and SVC syndrome (risk factors and RA masses).
- These two separate lesions are likely malignant if they shrink post-chemotherapy.
- If they are isolated to her heart and completed the regimen, they can be resected.
- If they were metastatic from breast cancer, it would be a very unusual scenario.
- Tolerated 4 cycles of AC with no evidence of disease recurrence or progression.
- Follow-up TTE showed a 3.7 x 6.1 cm echogenic area within the RA, deemed of no significant difference in size since prior study done three months earlier.

CASE DESCRIPTION AND OUTCOMES:

- 70-year-old woman post-lumpectomy for a screening-detected grade 2 invasive ductal carcinoma of her right breast, resection margins clear, positive lymph nodes and lymphovascular invasion, T2 (2.6 cm) N1 (1/3) cMO, ER/PR positive, HER-2/neu negative, Ki-67 positive (25%).
- Adjuvant chemotherapy was indicated given the high risk of recurrence.
- Baseline echocardiogram (TTE) showed normal left ventricular size and systolic function with abnormal relaxation filling pattern and an echogenic area in the right atrium (RA).
- However, a transesophageal echocardiogram (TEE) showed two echogenic masses in the RA, attached to the interatrial septum close to the superior vena cava (SVC), measuring up to 7 x 4.5 cm.
- Staging CT scan excluded other areas of suspected distant metastasis.



REFERENCE:

Freter, Carl E., and Longo, Dan L., "Late Consequences of Cancer and Its Treatment." *Harrison's Principles of Internal Medicine*, 20e Eds. J. Larry Jameson, et al. New York, NY: McGraw-Hill, <http://accessmedicine.mhmedical.com.proxy.lib.nosm.ca/content.aspx?bookid=2129§ionid=192016921>.

DISCLOSURES: None