Control Number: 7

Abstract Category: Clinical Case Challenge in Cardio-Oncology

Title: Right Atrial Mass: Finding The Culprit

ABSTRACT BODY

Background and Purpose

Right atrial mass was found in an atypical presentation of a female patient with active breast cancer on chemotherapy delivered via a Port-A-Cath. Such a mass could be a right atrial thrombus, which is due to the interplay between direct endothelial damage, stasis caused by the catheter and the hypercoagulable state caused malignancy. It could alternatively be due to tricuspid valve vegetations, benign or malignant primary tumors or metastatic tumors.

Case Description and Outcomes

A 50-year-old female with a history of breast invasive ductal carcinoma on Adriamycin, Cytoxan and Taxol presented to the clinic complaining of shortness of breath. An echocardiogram was done to check her left ventricular systolic function, which was normal without valvular abnormalities or vegetations; however, an incidental finding of right atrial mass was discovered. To test for Pulmonary Embolism (PE) and Deep Venous Thrombosis (DVT) as a source of right atrial thrombus, CT pulmonary angiography, upper and lower extremity venous imaging were performed, and were negative. Hypercoagulable state work up was negative. Transesophageal Echocardiography (TEE) confirmed the presence of solid right atrial mass, measuring 2.3 x 1.2 cm fixed to the lateral wall with no extension into the inferior vena cava and a catheter was noted in the right atrium (Figure 1). The mass was not attached to the Port-A-Cath. At this point, the patient was started on therapeutic anticoagulation with Low Molecular Weight Heparin (LMWH) and after a lag period the Port-A-Cath was removed, which may be the culprit. Cardiac MRI confirmed the presence of right atrial thrombus. Follow up TEE showed marked reduction in the size of the mass to 0.5 x 0.4 cm. Patient was switched from LMWH to Apixaban to be continued for at least 6 months until complete resolution of the thrombus (Figure 2).

Discussion

The key challenge was making the decision to start the patient on anticoagulation while completing the work up for the possibility of atrial malignancy and ruling out DVT or PE. A high index of suspicion will help clinicians diagnose and treat right atrial thrombus early.

References

1. Baskin, Jacquelyn L., et al. "Management of occlusion and thrombosis associated with long-term indwelling central venous catheters." The Lancet 374.9684 (2009): 159-169. Wall, Caroline, John Moore, and Jecko Thachil.
2. "Catheter-related thrombosis: a practical approach." Journal of the Intensive Care Society 17.2 (2016): 160-167.

Image 1

Image 2