Navigating cardiac thrombus challenges during chemotherapy: A breast cancer patient's journey

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Introduction

Chemotherapy ports are small implantable devices that give access to larger veins for the administration of medications such as chemotherapy.

Blood clots, such as right atrial thrombi, can occur due to these ports and may have devasting consequences.

Case Description

A 53-year-old female with a history of left breast cancer stage 2A on chemotherapy via a right portacath, with mild dyspnea, had routine echocardiogram which showed 2 lesions: A right atrial mass with mobile component most likely consistent with thrombus 2.7 x 1.5 cm and a 1.1 x 0.8 cm right atrial free wall mass.
She was sent to the emergency department immediately by the cardiologist. She was started on enoxaparin before transitioning to apixaban. Other key studies included a CT angiography (CTA) which ruled out pulmonary embolism. She was started on enoxaparin before transitioning to apixaban.

Investigation

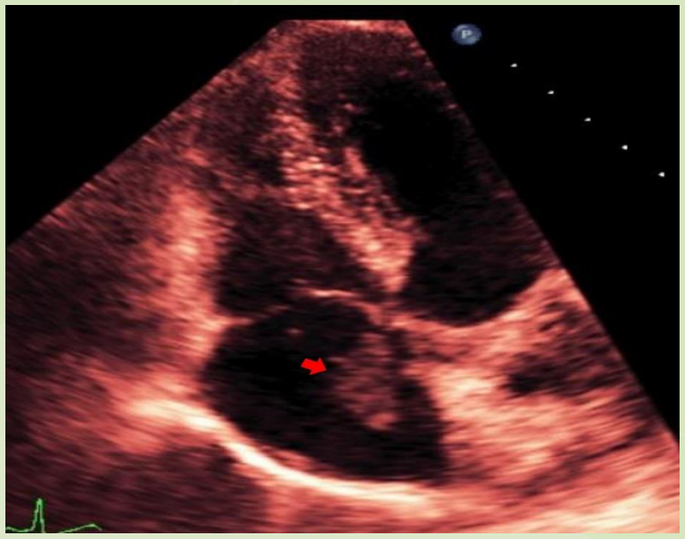

Figure 1 Trans-thoracic echocardiogram(right ventricular view) showing right atrial thrombus

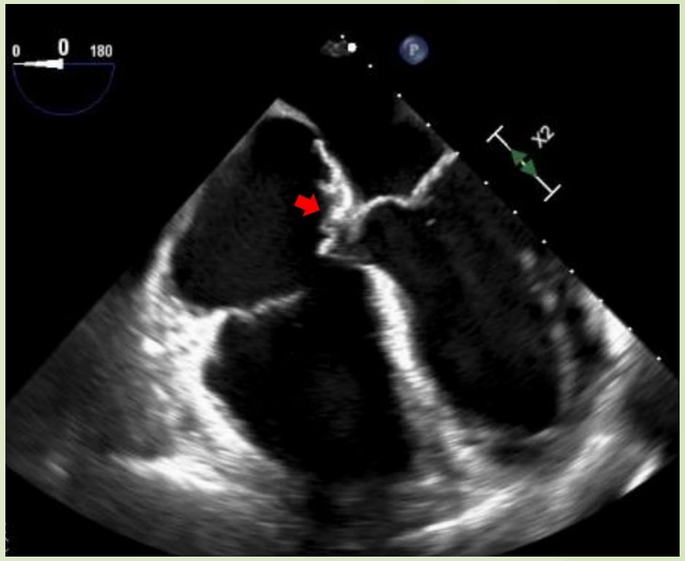

Figure 2 Trans-thoracic echocardiogram (mid-esophageal, four chamber view at 0) showing the right atrial thrombus(red arrow)

Management

She was discharged home and continued to receive chemotherapy through her portacath to avoid disturbing the thrombus, She had serial echocardiograms that showed a stable organized thrombus, followed closely by outpatient cardiology and hemato-oncology. The portacath was removed after completion of chemotherapy.

A transesophageal echocardiography one year later showed two calcified echo densities in the right atrium, suggestive of an old calcified thrombus. A CTA six months later showed no lesion in the right atrium or superior vena cava, and anticoagulation was discontinued.

Conclusion

Catheter-related right atrial thrombi are often found incidentally on routine imaging in patients undergoing chemotherapy through central ports. Prompt recognition, initiation of anticoagulation, and removal of chemotherapy ports after completion of chemotherapy are crucial to decrease mortality.

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