

Nonbacterial Thrombotic Endocarditis in Metastatic Endometrial Adenocarcinoma Presenting as Stroke

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Introduction

Non-bacterial thrombotic endocarditis (NBTE) is a rare but potentially life-threatening entity due to sterile thrombi deposition on previously undamaged heart valves. The diagnosis and management remain challenging as there are no pathognomonic signs.

Case

A 45-year-old female with relapsed stage IV endometrial adenocarcinoma, recently started on pembrolizumab, presented to the ED for blurry vision of 2 weeks duration.

Physical Exam:

Heart: no murmurs

Neuro: visual field defect with left homonymous superior quadrantanopia. No other focal deficits. AAOx3

Workup:

- CT head: hypoattenuation in the bilateral occipital lobes
- MRI head: multiple subacute and chronic foci of ischemia involving posterior and anterior circulations, concerning for an embolic source (Fig. 1)
- Transthoracic echocardiogram (TTE): no obvious vegetation or patent foramen ovale
- Transesophageal echocardiogram (TEE): 0.3 cm x 0.3 cm lesions on the aortic valve (Fig. 2)
- Blood cultures: negative (3 sets cultured for 14 days)
- ANA and antiphospholipid antibodies: negative

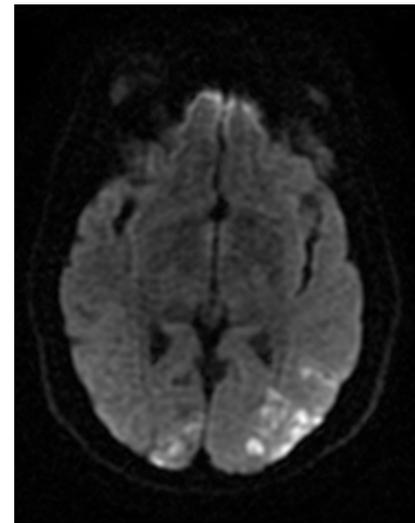


Figure 1. Axial DWI image of brain MRI shows patchy restricted diffusion in left temporal occipital and right occipital lobe

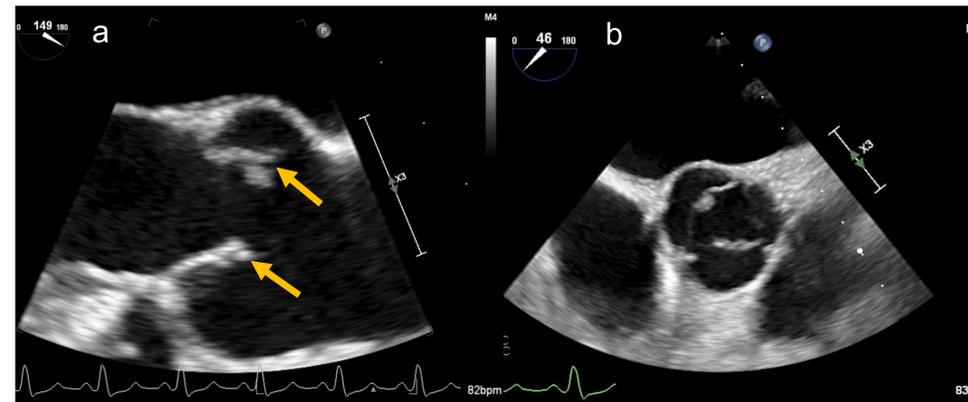


Figure 2. TEE

- a) Long axis view of the aortic valve opening- thickening of the aortic valve leaflets (arrows)
- b) Short axis view of the aortic valve- leaflet tip thickening on all three leaflets

Case Continued

Diagnosis:

Based on TEE and negative blood cultures, diagnosis of NBTE was made leading to stroke, likely from relapsed endometrial cancer.

Treatment:

Indefinite anticoagulation was started with low-molecular weight heparin 1 mg/kg twice daily. She was eventually switched to rivaroxaban.

Discussion

- The patient's advanced malignancy places her at increased risk for hypercoagulable state. Immune checkpoint inhibitors like pembrolizumab can also increase risk of venous and arterial thrombosis.
- Treatment guidelines of NBTE recommend indefinite systemic anticoagulation and treatment of the underlying condition (Grade 2C).
- More studies are needed to support the use of direct oral anticoagulants.
- **A high clinical suspicion in advanced stage malignancies warrants a TEE to reach diagnosis.**

References

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