

Research Symposium

A Sticky Situation: Rare Case of Infected Thrombus in the Superior Vena Cava

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INTRODUCTION

Catheter-associated thrombus formation is a well-recognized complication, but infected thrombi within the superior vena cava (SVC) are rarely reported.

CASE DESCRIPTION

A 54-year-old male with hypertension, diabetes, and end-stage renal disease on hemodialysis presented with a non-functioning Permcath. He was found to have atrial fibrillation with ST elevation, and emergent catheterization revealed 100% occlusion of both the left anterior descending and right coronary arteries. Revascularization was unsuccessful, and he was stabilized with an intra-aortic balloon pump and norepinephrine.

After his Permcath site showed drainage, blood cultures grew methicillin-sensitive *Staphylococcus aureus* (MSSA), prompting catheter removal and IV antibiotics. Transthoracic echocardiogram (TTE) on day 2 showed no thrombi or vegetations. His ICU course deteriorated with sepsis and

Proteus bacteremia secondary to acute cholecystitis, requiring percutaneous cholecystostomy. A repeat TTE on day 6 remained unchanged, but a transesophageal echocardiogram (TEE) on day 8 identified mobile echodensities in the SVC, suggestive of vegetations. On day 9, he developed septic and cardiogenic shock, requiring intubation and vasopressor support. He succumbed to multi-organ failure on day 11 after transitioning to comfort care.

DISCUSSION

This case highlights the rare occurrence of infected SVC thrombi in MSSA bacteremia, detected only by TEE. It underscores the importance of early diagnostic imaging, particularly TEE, in catheter-related bloodstream infections with persistent bacteremia. Current guidelines favor TEE over TTE for detecting intravascular complications in high-risk patients, emphasizing the need for early recognition to reduce morbidity and mortality.

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