Thrombotic Septicemia: An important Complication of Central Venous Catheterization

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INTRODUCTION
Central venous catheters are commonly used for intravenous access in a myriad of clinical situations. Patients receiving long-term therapy (e.g. chemotherapy, often receive subcutaneous chest ports attached to such a catheter). Hematolymphatic patients often require intermittent intravenous catheters, either nontunneled (“temporary”) or tunneled (“permanent”), as bridges to the periphery for routes of interventional follow-up or ports. These patients with long-term central venous devices are at particular risk for the infectious and thrombotic complications of invasive devices. These complications can often be serious and may require urgent and appropriate management. This presentation reviews the potential complications of central venous access devices, discusses the management of catheter-related thrombotic septicemia, and offers recommendations to minimize the risk of such complications, e.g., avoidance of the subclavian approach.

CASE REPORT
A 23-year-old male with metastatic non-Hodgkin’s lymphoma presented to the emergency department with respiratory failure several hours after undergoing central venous access placement. Blood cultures revealed methicillin-resistant Staphylococcus aureus and Staphylococcus epidermidis. Chest CT showed multiple bilateral subpleural cavitary nodules consistent with septic emboli. The source was a catheter-related thrombus involving the left brachiocephalic vein and SVC. Management consisted of chest port removal and temporary SVC filter placement with concurrent intravenous anticoagulation and antibiotic therapy. Imaging at the time of initial intervention, the patient underwent percutaneous thrombectomy with subsequent filter placement. This treatment led to venous recanalization and symptomatic improvement while the patient’s white count normalized.

CONCLUSION
Increased awareness of the causes and treatment of central venous catheter related complications in general, and thrombotic septicemia in particular, should help reduce the morbidity and mortality associated with central venous devices.

REFERENCES