

“When *B. cepacia* isn’t: A case of invasive melioidosis with rare CNS and Vascular involvement in a diabetic patient

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Introduction

Melioidosis is an emerging infectious disease in tropical regions caused by *Burkholderia pseudomallei*, an environmental Gram-negative bacillus. Its diverse clinical manifestations and frequent misidentification by conventional biochemical systems pose diagnostic challenges. While hepatic abscesses are common, neurological and vascular involvement are rare and often underrecognized. Early and accurate identification is critical to avoid relapse and improve outcomes.

Case Presentation

We report a case of a 29-year-old male with newly diagnosed type 2 diabetes mellitus presenting with fever, a pulsatile right neck mass, dizziness, and acute left-sided weakness. Imaging studies revealed a ruptured right common carotid artery pseudoaneurysm necessitating emergent surgical repair, concurrent acute watershed infarcts, hydrocephalus requiring ventriculoperitoneal shunting, and right hepatic lobe abscess managed with aspiration and drainage. Five months prior, he had been treated for hepatic abscess, with cultures reportedly demonstrating *B. cepacia*.

During the current admission, blood cultures identified *B. pseudomallei*. Management was then directed toward multifocal invasive melioidosis with septicemia, CNS involvement, and vascular infection. Therapy commenced with intravenous meropenem, which was transitioned to intravenous ceftazidime. This regimen was de-escalated to six-month oral course of trimethoprim-sulfamethoxazole. He was discharged in stable condition, with close outpatient follow-up.

Conclusion

This case highlights the varied manifestations of melioidosis, including rare neurologic and vascular complications. It also underscores the potential for misidentification with *Burkholderia cepacia*, leading to delayed or suboptimal therapy. Clinicians in endemic areas should maintain a high index of suspicion for melioidosis in diabetic patients with recurrent abscesses or unusual systemic involvement, and consider confirmatory diagnostic methods to improve accuracy.

