Abstract:

Introduction: Citrobacter bacteria are gram-negative anaerobic bacilli commonly found in water, soil, food, and the intestinal tracts of animals and humans. Patients at highest risk of these nosocomial infections include neonates and adults who are ≥65 years of age, debilitated, or immunocompromised. Citrobacter braakii (C. braakii), specifically, has been reported to cause sepsis in immunocompromised patients. Herein, we describe a case of an allogeneic stem cell transplant (SCT) adult patient with C. braakii bloodstream infection.

Case report: We report our experience managing a central line-associated bloodstream infection (CLABSI) due to C. braakii in an allogeneic SCT patient. Management and Outcomes: Our patient was initially managed with cefepime. The central venous catheter (CVC) was removed. Blood cultures cleared 24 hours after antibiotic initiation. Therapy was transitioned to oral levofloxacin once susceptibilities resulted.

Discussion: The course of this patient highlights the important relationship between an unusual pathogen, C. braakii, in an immunocompromised allogeneic SCT patient. In our case, the source of the bacteremia was most likely a CLABSI given the positive catheter tip cultures. Although this report describes the successful utilization of cefepime and levofloxacin in the treatment of C. braakii infection, caution should be exercised when choosing empiric antimicrobial therapy as AmpC resistance. This clinical scenario can aid health care providers in making informed treatment decisions when faced with patients diagnosed with this relatively uncommon pathogen. Further reports should be published to determine C. braakii bacteremia management in hematopoietic stem cell transplant patients.

Reference: