CRBSI is confirmed in 85% of catheter-dependent hemodialysis patients in whom it is suspected” Farrington and Allon (2019).

Abstract:

BACKGROUND: Catheter-related bloodstream infections - (CRBSI) are associated with a high burden of morbidity and mortality, but the impact of infecting organism on clinical outcomes has been poorly studied.

METHODS: This retrospective analysis of a prospective vascular access database from a large academic dialysis center investigated whether the organism type affected the clinical presentation or complications of CRBSI.

RESULTS: Among 339 patients with suspected CRBSI, an alternate source of infection was identified in 50 (15%). Of 289 patients with CRBSI, 249 grew a single organism and 40 were polymicrobial. Fever and/or rigors were presenting signs in ≥90% of patients with Staphylococcus aureus or Gram-negative CRBSI, but only 61% of Staphylococcus epidermidis infections (p < 0.001). Hospitalization occurred in 67% of patients with S. aureus CRBSI versus 34% of those with S. epidermidis and 40% of those with a Gram-negative bacteria (p < 0.001). Admission to the intensive care unit was required in 14, 9, and 2% (p = 0.06); metastatic infection occurred in 10, 4, and 4% (p = 0.42); and median length of stay among patients admitted to the hospital was 4, 4, and 5.5 days (p = 0.60), respectively. Death due to CRBSI occurred in only 1% of patients with CRBSI. CONCLUSION: CRBSI is confirmed in
85% of catheter-dependent hemodialysis patients in whom it is suspected. S. epidermidis CRBSI tends to present with atypical symptoms. S. aureus CRBSI is more likely to require hospitalization or intensive care admission. Metastatic infection is relatively uncommon, and death due to CRBSI is rare.

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Reference: