opportunity for virtual bolstering of staffing ratios, providing a team-based consultation on every patient with coronavirus seen at Mayo Clinic facilities.

With regard to insurance status, 14.2% of patients did not have government, commercial, or other insurance on file and 74.3% originated from counties designated as either medically underserved areas or having substantial medically underserved populations by the Health Resources & Services Administration. Although it is difficult to compare these to other studies as these data are not consistently available, a significant proportion of the population seen was at risk of lack of regular access to medical care.

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Brevibacterium Species: An Emerging Opportunistic Cause of Bloodstream Infections

To the Editor: Brevibacterium species (spp) are nonmotile, catalase-positive, obligate aerobic Gram-positive bacilli. A case of Brevibacterium fermentans meningitis was first described in 1969 in an infant who underwent placement of a ventriculocardiac shunt. Clinical reports of Brevibacterium spp—associated bloodstream infections and endocarditis are increasing. Yet, the organism continues to be listed as a common commensal by the National Healthcare Safety Network database of the Centers for Disease Control and Prevention.

We identified all clinical isolates of Brevibacterium spp grown in the microbiology laboratory at Mayo Clinic in Rochester, Minnesota, from January 1, 2014, through December 31, 2019. All cultures with polymicrobial growth and sources other than blood that were not derived intraoperatively were treated as nosterile. Appropriate statistical analyses were performed, when possible, for parametric and nonparametric data with a predefined statistical significance of P≤0.05.

We identified 48 isolates from 45 unique patients with a median (interquartile range [IQR]) age at diagnosis of 59 (51-72) years; 21 (47%) were women. Fourteen patients (31.1%) had an identified malignant neoplasm, and 9 (20.0%) received chemotherapy within the past 30 days (Figure A). Seven patients (15.5%) were recipients of stem cell or solid organ transplant. The median (IQR) hospital length of stay was 6 (4-17) days; the median (IQR) intensive care unit length of stay was 1.0 (0-2.5) days.

Of the 48 cultures, 30 (62.5%) had monomicrobial growth from a sterile source. Blood cultures represented 21 (70%) of these. The median (IQR) time to growth was 57 (46.25-85.50) hours. Time to positivity was weakly negatively correlated with the number of positive blood culture bottles, with a decrease of 8.9 hours for every additional bottle that tested positive (R²=0.27) (Figure B). Six of 7 isolates (85.7%) with available antimicrobial susceptibility testing were noted to have either resistance or intermediate susceptibility to penicillin (resistance: minimum inhibitory concentration (MIC), >8 μg/mL; intermediate: MIC, 2 μg/mL) and ceftriaxone (resistance: MIC, >2 μg/mL; intermediate: MIC, 2 μg/mL). All isolates were susceptible to vancomycin (MIC, <1 μg/mL).

The median (IQR) Charlson Comorbidity Index score was 5 (2.5-8.5). The likelihood of bacteremia was increased for posttransplant status and recent chemotherapy (Figure A). The mortality rate at 30 days was high (13.0%).

The clinical importance of Brevibacterium spp has yet to be established. In our limited experience, stem cell or solid organ transplant recipient status and recent chemotherapy were individually associated with positive blood cultures. It is unclear whether this represents a greater number of blood samples drawn in this population. These patients had a high mortality rate that could not be correlated with other analyzed comorbidities or Charlson Comorbidity Index score. This association with bloodstream infection may be true particularly for patients with a shorter time to blood culture positivity and multiple positive blood culture bottles.

Susceptibility data suggest that intravenous vancomycin offers a reasonable empirical treatment option. Brevibacterium spp should be considered an opportunistic cause of bacteremia and cardiovascular infection in immunosuppressed hosts without an alternative explanation. Additional studies need to be undertaken to further define host populations in whom this organism presents pathogenicity.
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