E. faecalis vancomycin-sensitive enterococcal bacteremia unresponsive to a vancomycin tolerant strain successfully treated with high-dose daptomycin.

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Enterococci are part of the normal flora of the gastrointestinal tract. Intra-abdominal and genitourinary enterococcal infections may be complicated by enterococcal bacteremia. Most strains of enterococci fecal flora in antibiotic-naive patients are E. faecalis. Because nearly all E. faecalis strains are sensitive to vancomycin, E. faecalis is synonymous with vancomycin-sensitive enterococci (VSE). E. faecium, which is nearly always vancomycin-resistant, is termed vancomycin-resistant enterococci (VRE). High-grade continuous enterococcal bacteremias may result in endocarditis. Persistent VSE and VRE bacteremias may be related to device-associated infections; intra-abdominal, pelvic, and/or renal abscesses; or enterococcal endocarditis. If these causes of persistent enterococcal bacteremia are eliminated, microbiologic and antimicrobial therapy-related causes for persistent bacteremia should be considered. We present a case of a male with a E. faecalis (VSE) bacteremia unresponsive to parenteral vancomycin therapy but sensitive to vancomycin in vitro (minimum inhibitory concentration [MIC] = 1 µg/mL). The patient was treated with high-dose daptomycin (12 mg/kg intravenously [IV] q 24 hours) empirically pending susceptibility testing. High-dose daptomycin therapy cleared the patient's E. faecalis bacteremia. Subsequently, it was determined that the strain of E. faecalis was "tolerant" of vancomycin (MIC = 1 µg/mL, MBC = >64 µg/mL). We believe this is the first case of enterococcal (VSE) bacteremia unresponsive to vancomycin tolerant strain of E. faecalis that responded to high-dose daptomycin (12 mg/kg IV q 24 hours) therapy.

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