Heart Lung 2007 Nov-Dec;36(6):456-61.

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

Cunha BA, Mickail N, Eisenstein L.

Infectious Disease Division, Winthrop-University Hospital, Mineola, and the State University of New York School of Medicine, Stony Brook, New York.

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 vancomycinsensitive 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 mug/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 mug/mL, MBC = >64 mug/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.

PMID: 18005808 [PubMed - in process]

]