Outcomes of Invasive Infection due to Vancomycin-Resistant Enterococcus faecium during a Recent Outbreak.

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BACKGROUND: Earlier reports have shown a high mortality of invasive infection due to vancomycin-resistant Enterococcus faecium (VREF). Most of these studies have been conducted in US hospitals prior to the advent of newer VREF-active antimicrobials, and the reported poor outcomes have been explained by the limited choices for effective antimicrobial therapy.

PATIENTS AND METHODS: A total of 25 cases of invasive VREF infection were seen during an outbreak in a tertiary care hospital. Patient characteristics and outcomes were evaluated by a structured retrospective chart review and descriptive analysis.

RESULTS: Severe underlying diseases such as leukemia not in remission (86%) were highly prevalent among patients with invasive VREF infection. Fifty-two percent of underlying diseases and/or comorbidities were considered according to the McCabe classification as rapidly fatal. Most patients had received high-dose cytotoxic chemotherapy, and many were neutropenic at the onset of VREF infection. Concomitant infection due to other organisms was found in 48% of the patients. All patients had received extensive antibiotic treatment prior to the onset of VREF infection. Resistance to linezolid was observed in four cases. Overall survival at day 30 was 48%. Four deaths were considered to be directly related to VREF infection.

CONCLUSION: Invasive VREF infection during this outbreak was confined to patients with severe underlying comorbidity. The mortality of VREF infection remained high, despite treatment with newer VREF-active antibiotics such as linezolid and quinupristin-dalfopristin.

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