

Vancomycin-resistant Gram-positive bacterial endophthalmitis: epidemiology, treatment options, and outcomes.

Khera M, Pathengay A, Jindal A, Jalali S, Mathai A, Pappuru RR, Relhan N, Das T, Sharma S, Flynn HW.

Source

LV Prasad Eye Institute, GMR Varalakshmi Campus, Visakhapatnam 530040, India.
avinash@lvpei.org.

Abstract

BACKGROUND:

The purpose of this study is to evaluate the microbiological profile and treatment outcomes of vancomycin-resistant Gram-positive bacterial endophthalmitis. Medical records of all patients with Gram-positive bacterial endophthalmitis resistant to vancomycin presenting between 1 January 2005 and 31 December 2010 were reviewed in this noncomparative, consecutive, retrospective case series. Favorable outcome was defined as a best-corrected visual acuity of $\geq 20/200$.

RESULTS:

Out of 682 culture-positive endophthalmitis isolates, 448/682 (65.6%) were associated with Gram-positive bacteria. In vitro resistance to vancomycin was noted in 7/448 (1.56%). Three cases were posttraumatic, three were postoperative, and one was endogenous in origin. Four *Bacillus* isolates, two *Staphylococcus* isolates, and an *Enterococcus* isolate were resistant. Isolates resistant to vancomycin were sensitive in vitro to ciprofloxacin in 6/7 (86%) patients. Presenting visual acuity was light perception in all seven cases. Favorable outcome was achieved in only 1/7 (14.3%) cases.

CONCLUSIONS:

Vancomycin-resistant endophthalmitis is uncommon and usually associated with poor visual outcome. *Bacillus* sp. is the most frequent Gram-positive bacteria resistant to vancomycin. Fluoroquinolones like ciprofloxacin may be considered as a useful alternative in vancomycin-resistant endophthalmitis.