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VRE in Liver Transplant Recipients

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Investigators at Mount Sinai Medical Center in New York City reported on a study of risk factors for acquisition of, and mortality due to, nosocomial infections with vancomycin-resistant *Enterococcus faecium* (VREF) in orthotopic liver transplant (OLT) recipients. Thirty-two VREF-infected OLT patients (cases) were compared with 33 randomly selected OLT recipients (controls). More antibiotics were administered preoperatively to cases (mean, 4 antibiotics per patient for 474 antibiotic-days) than controls (mean, 1.8 antibiotics per patient for 131 antibiotic-days). Cases were more likely than controls to have received vancomycin therapy preoperatively and to have been hospitalized in the intensive-care unit (ICU) preoperatively. Logistic regression revealed that the risk factors for acquisition of VREF infection were surgical reexploration and a prolonged stay in the surgical ICU postoperatively. In the cases, the risk factors for mortality were admission to the ICU preoperatively and hemodialysis. The mortality rate associated with polymicrobial bloodstream infections was 100% despite appropriate therapy. Sixteen and 18 cases received parenteral chloramphenicol and doxycycline, respectively, for treatment of VREF infection. There were no hematologic adverse effects attributed to chloramphenicol treatment. DNA analysis of selected *E faecium* isolates suggested that infections were due to multiple clones.

The authors concluded that antibiotic usage provides for a selection pressure that probably contributes to VREF colonization and that infection with VREF is a predictor of morbidity and mortality in OLT patients. The authors discourage the use of vancomycin as a perioperative prophylaxis in all institutions that still employ this practice.

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