Salvage Treatment for Persistent Methicillin-Resistant Staphylococcus aureus Bacteremia: Efficacy of Linezolid With or Without Carbapenem.


BACKGROUND. Persistent methicillin-resistant Staphylococcus aureus (MRSA) bacteremia is associated with high mortality rates, but no treatment strategy has yet been established. We performed this study to evaluate the efficacy of linezolid with or without carbapenem in salvage treatment for persistent MRSA bacteremia.

METHODS. All adult patients with persistent MRSA bacteremia for 7 days from January 2006 through March 2008 who were treated at Seoul National University Hospital were studied. The results of linezolid salvage therapy with or without carbapenem were compared with those of salvage therapy with vancomycin plus aminoglycosides or rifampicin.

RESULTS. Thirty-five patients with persistent MRSA bacteremia were studied. The early microbiological response (ie, negative results for follow-up blood culture within 72 hours) was significantly higher in the linezolid-based salvage therapy group than the comparison group (75% vs 17%; [Formula: see text]). Adding aminoglycosides or rifampicin to vancomycin was not successful in treating any of the patients, whereas linezolid-based therapy gave an 88% salvage success rate ([Formula: see text]). The S. aureus-related mortality rate was lower for patients treated with a linezolid salvage regimen than for patients continually treated with a vancomycin-based regimen (13% vs 53%; [Formula: see text]).

CONCLUSIONS. Linezolid-based salvage therapy effectively eradicated S. aureus from the blood for patients with persistent MRSA bacteremia. The salvage success rate was higher for linezolid