Is a first- or second-generation cephalosporin-based regime a suitable first-line antibiotic treatment for continuous ambulatory peritoneal dialysis peritonitis?

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First-generation cephalosporins have been advocated to replace vancomycin in the first-line antibiotic treatment for continuous ambulatory peritoneal dialysis (CAPD) peritonitis. The aim of this study is to evaluate the effectiveness of a first- or second-generation cephalosporin (CI/II)-based regime and its impact on methicillin-resistant Staphylococcus peritonitis (MRSP) over a 5-year period in a regional hospital, where vancomycin was reserved as the second-line antibiotic. From 1995 to 1999, among the 541 cases of pyogenic bacterial peritonitis, CI/II plus tobramycin (C+T) was prescribed as the initial antibiotics in 333 cases, and vancomycin with an aminoglycoside (V+A) was prescribed in 103 cases. The primary response rates were 70.2% for C+T and 76.7% for V+A (p = n.s.) and the overall response rates (including subsequent change of antibiotics) were 89.8% and 84.5% respectively (p = n.s.). In the two groups, 12% and 11.7% of peritonitis were caused by MRS (p = n.s.). There was no significant change of primary response and overall response rates to C+T over the 5-year period. The use of CI/II was not associated with an increased relative risk for subsequent development of MRS infection. We concluded that CI/II together with an tobramycin is an effective first-line antibiotic treatment with good overall response rate. (Hong Kong J Nephrol 2001;3(1):15-20)

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