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Long Term Followup of Gentamicin Cream at the Exit Site

Bernardini, J., Bender, F., Piraino, B.; University of Pittsburgh, Pittsburgh, United States

Prophylaxis for catheter infections (CI) using gentamicin cream at the exit site (ES) has been shown to be superior to mupirocin (JASN 16:539-545, 2005). The study purpose was to evaluate gentamicin sensitivities subsequent to completing this RCT. The RCT comparing gentamicin to mupirocin ran from 2000-2003, after which all patients at one center were placed on ES gentamicin. Followup was 1/1/04 to 1/1/06 with all PD infections tracked prospectively as well as sensitivity to gentamicin (sensitive [S], intermediate resistance [IR], or resistant [R]). The 2 year-cohort consisted of 98 PD patients, 53% women, 73% white, 26% DM, mean age 49, mean PD time 27 months, mean Charlson Comorbidity Index 5 at PD start. The rate of CI was 0.27/yr or 1/ 44 months for 2004 and 0.10/yr or 1/120 months for 2005. In 2004, there were 4 *P. aeruginosa* CI, all S to gentamicin, following which use of ES gentamicin was reinforced. In 2005 there were no *P. aeruginosa* CI (0.04/yr for 2 yrs). Over the 2 years, there were no other GN CI and only 3 *S. aureus* CI (0.03/yr). There were 2 *Candida* CI, 1 in a diabetic returned to ES mupirocin without recurrence, 1 in a nondiabetic managed by 1 course diflucan and return to mupirocin without recurrence. Only 2 of the 18 (11%) peritonitis were R or IR to gentamicin (1 *E. coli* with IR and 1 *Brevindomonas dimunita* with R). There were 3 fungal peritonitis (0.03/yr), none related to CI and similar to the decade prior to gentamicin use (1990-2000, 0.02/yr, p=0.43). We conclude that gentamicin cream applied daily to the exit site in a program over 5 years prevents CI in PD patients with little evidence of resistance and no increase in fungal peritonitis.