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Nystatin Prophylaxis for the Prevention of Fungal Peritonitis in Patients Receiving CAPD: A Single-Center Experience on 481 Patients.

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Fungal peritonitis (FP) is a serious complication of CAPD associated with significant morbidity and mortality. The role of nystatin prophylaxis in FP prevention remains controversial.

Objective: Our center started giving oral oral nystatin 0.5MU qid for every use of antibiotics in CAPD patients since Oct 1999. We did a retrospective study to evaluate the effect of nystatin prophylaxis on the occurrence of FP.

Methods and Results: Prevalent patients receiving CAPD between April 1995 and April 2005 at our center were included and divided into 2 groups. Occurrence of FP in patients with and without nystatin prophylaxis(NP) was compared.The control group included 320 patients (total follow-up, 8875.4 patient-months) being treated without NP before Oct 1999, and NP group included 481 patients (total follow-up, 13724.9 patient-months) being treated afterward. They were of similar age, but NP group patients had a significant higher percentage of DM (41.4% vs 31.9 %, $p < 0.01$) and a significant lower peritonitis rate (27.5 vs 21.4 patient-months/ episode, $p < 0.001$) as compared with controls. There were 14 (13 candida species, 1 trichosporon) episodes of FP in control group and 13 (all candida species) episodes in NP group with no significant change in the overall FP rate (634 vs 1056 patient-months/ episode, $p = 0.06$). There were significant decrease in the antibiotic-related (AR-FP) proportion of FP (30.7%, vs 71.4%, $p < 0.001$), which was defined as positive exposure to antibiotics within 1 month of FP, and significant decrease in the incidence of AR-FP (0.8 vs 2.6 per 100 peritonitis, $p < 0.001$) in NP group as compared with controls. Kaplan-Meier analysis showed that NP group had a significantly better AR-FP free survival as compared with control group (log-rank test, $p < 0.01$).

Conclusions: Oral nystatin prophylaxis could effectively prevent the occurrence of antibiotics- related fungal peritonitis in CAPD patients resulting in a trend toward reduction in the incidence of FP. Antibiotics-unrelated episodes accounted for the majority of FP after nystatin prophylaxis.