Re: Why a New Journal?

IJKD 2007;1:105
www.ijkd.org

Sir,

Congratulations to you and your colleagues on launching the *Iranian Journal of Kidney Diseases*. I am sure that this journal will bring the Iranian nephrological community together and will help the new generation of Iranian nephrologists. Hopefully, through this journal, you will be able to show the International nephrological community your achievements and contributions in our field.

The Web page [www.ijkd.org] was very user friendly. I perused the contents of the first issue and I was impressed with the variety of issues addressed. I was impressed with the findings of the paper by Pour-Reza-Gholi and associates on the use of doxepin for the treatment of uremic pruritus in patients on hemodialysis,[1] and definitely, I will try it in my patients on peritoneal dialysis. Pruritus is a very annoying problem in patients on maintenance dialysis.

Staphylococcus aureus colonization in patients who receive dialysis is a cause of serious morbidity and mortality in both peritoneal dialysis and hemodialysis patients, as emphasized by Ghazvini and colleagues.[2] In our hemodialysis unit, following a randomized prospective controlled trial that showed lower morbidity and mortality in those using polysporin ointment at the exit site, we introduced it as a routine procedure in all patients using a line as an access. In our patients on hemodialysis, we are using mupirocin at the exit site and we have found a substantial decrease in the frequency of *S aureus* infections.

I agree with the conclusions of the paper by Hooman and colleagues on fungal peritonitis.[3] Unfortunately, the only available treatment is catheter removal immediately after the fungus has been identified. Prevention of fungal peritonitis remains our main hope. Though the results are controversial, use of nystatin by mouth, whenever these patients are exposed to antibiotics for any reason, seems to be a safe policy.

Again congratulations on your efforts and best wishes for your success.

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2. Ghazvini K, Hekmat R. Nasal and skin colonization of Staphylococcus aureus in hemodialysis patients in northeast of Iran. IJKD. 2007;1:21-4.
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Re: Fungal Peritonitis in Iranian Children on Continuous Ambulatory Peritoneal Dialysis: A National Experience

Prompt Removal of Catheter in Fungal Peritonitis

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Sir,

Fungal peritonitis is a rare but serious complication of peritoneal dialysis (PD) and is associated with significant mortality. Observational studies suggest that it accounts for approximately 2% to 7% of PD-related peritonitis, but it can be difficult to clear, result in catheter loss, and frequently lead to conversion to hemodialysis (HD).[1,2]

There are no clear patient demographic characteristics or causes of end-stage renal disease that predispose to fungal peritonitis. However, in a historical cohort study, Kan and coworkers reported an increased rate of fungal peritonitis in Aboriginal patients in Western Australia.[3] Observational studies suggest that previous exposure to antibiotics within the past month or immunosuppression is more common in patients who develop fungal peritonitis; it was reported that between 61% and 95% of patients with fungal peritonitis had received antibiotics or had a bacterial infection in the previous month.[2,4,5]

The treatment of fungal peritonitis usually involves combination antifungal therapy with removal of the dialysis catheter. There are no randomized controlled trials on treatment, but 3 observational studies described a total of 88 episodes of fungal peritonitis, with treatment regimens highly variable and often changed over the course of the study.[2,4,5] These therapeutic options include amphotericin B (intravenous or intraperitoneal), fluconazole (oral or intraperitoneal), 5- flucytosine, miconazole, and ketoconazole as sole agents or in combination.[6]

Michel and colleagues compared the outcomes of patients who received antifungal therapy and either catheter removal at the time of diagnosis or delayed catheter removal.[4] In the early group (n = 8), 2 patients remained on PD, 5 changed to HD, and 1 died within 3 months. Delayed catheter removal was associated with requiring a change to HD in 5 out of 5 patients. Seven patients received antifungal therapy without catheter removal and of these, 3 remained on or returned to PD by 3 months and 4 died.[4] Goldie and colleagues reported the outcomes of 55 patients, 47 of whom received antifungal therapy and had catheters removed within 1 week of diagnosis. At 6 months, 40% returned to PD, 31% remained on HD, and 28% died. A further 8 patients were managed with antifungal therapy without catheter removal; at 6 months, 4 remained on PD and 4 died.[2] Although there was no evidence to support the choice of antifungal therapy, Bren and coworkers reported abdominal pain with the use of intraperitoneal amphotericin B and concern was raised regarding the peritoneal penetration of systemic amphotericin B.[5] There was no information regarding long-term peritoneal function in these patients.

There is no established therapy for fungal peritonitis and most centers use combination therapies with variable success. Most authorities suggest early PD catheter removal, because the catheter is usually contaminated with fungi. The recent *International Society for Peritoneal Dialysis* recommendations suggest that catheter removal is indicated immediately after fungi are identified by microscopy or culture.[7] The majority of fungal peritonitis episodes are preceded by courses of antibiotics. Hence, fungal prophylaxis during antibiotic therapy may prevent some cases of *Candida*-induced peritonitis in programs that have high rates of fungal peritonitis.[7]

Prolonged treatment with antifungal agents to guarantee the response is not encouraged. Fungal peritonitis is serious, leading to death of the patient in approximately a quarter or more of episodes. Some evidence suggests that prompt catheter removal poses a lesser risk of death.[7] Initial empirical therapy with a combination of amphotericin B and flucytosine can be helpful until the culture results are available. Caspofungin, fluconazole, or voriconazole may replace amphotericin B, based on species identification and minimum inhibitory concentration values. Intraperitoneal use of amphotericin B causes chemical peritonitis and pain, while the intravenous use leads to poor peritoneal administration. Voriconazole is an alternative for amphotericin B when filamentous fungi are cultured and can be used alone for *Candida* peritonitis (with catheter removal). If flucytosine is used, regular monitoring of serum concentrations is necessary to avoid bone marrow toxicity. Emergence of resistance to the imidazoles has occurred, thus indicating the importance of sensitivities, where available. Therapy with these agents should be continued after catheter removal, orally with flucytosine, 1000 mg, and fluconazole, 100 mg to 200 mg, daily for an additional 10 days. Withdrawal of oral flucytosine from some markets (eg, in Canada) will influence local protocols.[7]

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