ISPD Asian Chapter Newsletter

International Society for Peritoneal Dialysis (ISPD)

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From the Editorial Office

Dear All,

In this issue, we are delighted to have Dr. Yao Qiang from China to discuss the Shanghai Dialysis Registry. Also in this issue you will find a new format for the Literature Review section. We hope you will find that it is a helpful list of recent publications in the area of peritoneal dialysis. You are most welcome to distribute this newsletter electronically, or in printed form, to your colleagues or other people who may be interested. If you or your colleagues would like to receive this newsletter directly from our editorial office, please send your e-mail address to: ispd@multi-med.com

Sincerely,

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In this issue

To our industry partners:
The editorial office welcomes your assistance in distributing this newsletter in electronic or printed form to the dialysis community. If you are interested in sending scientific messages through the newsletter, please contact the editor at:
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News from the ISPD Asian Chapter

The Thailand government has officially announced a "peritoneal dialysis first" (PD-first) policy for its citizens with end stage renal failure (ESRF) since January 1, 2008. Over 900 new PD patients have been admitted into PD programs in just one year, which is a 150% increase over the total number of PD patients at the end of 2008.

News from the ISPD

Join the ISPD!

Membership benefits of the International Society for Peritoneal Dialysis include:

- Print and/or online subscription to *Peritoneal Dialysis International*
- Receipt of PD News
- Online access to ISPD Guidelines
- Special registration fees at ISPD Congress, Chapter Meetings and the Annual Dialysis Conference
- Application for ISPD Scholarships and Grants

Join today at www.ispd.org!

Asian chapter Scholarship

This scholarship supports up to 3 months of training in clinical PD for doctors and nurses from Asia. Application deadlines occur twice each year in June and December. The next deadline is June 30, 2009. Details and application procedures can be found under the Regional Chapters – Asian Chapter, at the ISPD website.

In the past 6 months, 2 scholarships have been awarded to doctors from India and Nepal to receive PD training in Hong Kong

Upcoming ISPD Events and Meetings

2nd Latin American Chapter Meeting
Iguazzu, Argentina
July 30-31, 2009
Website:www.jz.com.br/congressos/2009/ispd/pt

3rd North American Chapter Meeting
Vancouver, British Columbia, Canada
August 28-30, 2009
Website: www.ispd.org/NA

4th Asian Chapter Meeting
Beijing, China
October 15-17, 2009
Website: www.chinamed.com.cn/acm-ispd/content.asp

13th Congress of the ISPD
Mexico City, Mexico
June 18-21, 2010

Other Upcoming Meetings

World Congress of Nephrology 2009
Milan, Italy
May 22-26, 2009
Website: www.wcn2009.org

Obituary
Barbara Prowant, MS, RN, CNN (1953 – 2009)

To anyone who practices and studies PD, Barbara Prowant was the most well-known nurse. She was one of the pioneers of CAPD and contributed extensively to PD research, education, and training. She was the organizer of the nursing program of the Annual Dialysis Conference since 1980. Tens of thousands of nurses from all around the world have benefited from these nursing programs and will never forget her. Fighting multiple cancers, she worked until her last moments for peritoneal dialysis: after fixing all the affairs for the Annual Dialysis Conference in Houston, Barbara passed away peacefully at her home in Sturgeon, Missouri, USA on the eve of the Conference, March 7, 2009. This is a great loss to the world of peritoneal dialysis. We are so grateful for what she has done for patients, nurses, and nephrologists around the world. She will always be remembered; let her rest in peace.

Dr. Wai Kei Lo
Past President of ISPD

Literature Review

Study Highlight

1. Fang W, *et al*. Use of ACE inhibitors or angiotensin receptor blockers and survival in patients on peritoneal dialysis. *Nephrol Dial Transplant*. 2008 Nov; 23(11):3704-10.

This study asks: do we need a randomized control trial, or could we conclude that the drug has so many other benefits (e.g. cardiovascular)that we should give it to all patients?

2. Fang W, *et al*. Comparison of peritoneal dialysis practice patterns and outcomes between a Canadian and a Chinese centre. *Nephrol Dial Transplant*. 2008 Dec; 23(12):4021-8.

Interesting comparisons between two ethnic groups are outlined in this study.

3. Fried L, *et al*. Association of Kt/V and creatinine clearance with outcomes in anuric peritoneal dialysis patients. *Am J Kidney Dis*. 2008 Dec; 52(6):1122-30.

According to this study the cut-off Kt/V of 1.7 is not new; the important thing is we should use the actual body weight to do the calculation.

4. Kumar S, *et al*. Long term outcome of patients with autosomal dominant polycystic kidney diseases receiving peritoneal dialysis. *Kidney Int*. 2008 Oct; 74(7):946-51.

A nice study that confirms the value of PD in this group of patients, who many of us believe may not tolerate PD.

5. Lobbedez T, *et al*. Is rapid initiation of peritoneal dialysis feasible in unplanned dialysis patients? A single-centre experience. *Nephrol Dial Transplant*. 2008 Oct; 23(10):3290-4.

Unplanned dialysis is not ideal, but it does happen frequently in real life practice. This study provides support that PD is a reasonable treatment of choice.

Other Clinical Studies

1. Badve SV, *et al*. Peritoneal phosphate clearance is influenced by peritoneal dialysis modality, independent of peritoneal transport characteristics. *Clin J Am Soc Nephrol*. 2008 Nov; 3(6):1711-7.
2. Davies SJ, *et al*. Longitudinal relationships between fluid status, inflammation, urine volume and plasma metabolites of icodextrin in patients randomized to glucose or icodextrin for the long exchange. *Nephrol Dial Transplant*. 2008 Sep; 23(9):2982-8.

3. Kumar VA, *et al*. Hospitalization rates in daily home hemodialysis versus peritoneal dialysis patients in the United States. *Am J Kidney Dis*. 2008 Oct; 52(4):737-44.
4. Tarzi RM, *et al*. Assessing the validity of an abdominal CT scoring system in the diagnosis of encapsulating peritoneal sclerosis. *Clin J Am Soc Nephrol*. 2008 Nov; 3(6):1702-10.
5. Vychytil A, *et al*. Icodextrin does not impact infectious and culture-negative peritonitis rates in peritoneal dialysis patients: a 2-year multicentre, comparative, prospective cohort study. *Nephrol Dial Transplant.* 2008 Nov; 23(11):3711-9.

Basic Science Studies

1. Hung KY, *et al.* Preservation of peritoneal morphology and function by pentoxifylline in a rat model of peritoneal dialysis: molecular studies. *Nephrol Dial Transplant.* 2008 Dec; 23(12):3831-40.
2. Kihm LP, *et al* V. RAGE expression in the human peritoneal membrane. *Nephrol Dial Transplant*. 2008 Oct; 23(10):3302-6.
3. Latcha S, *et al.* Relationship between dialysate oxidized protein and peritoneal membrane transport properties in patients on peritoneal dialysis. *Nephrol Dial Transplant.* 2008 Oct; 23(10):3295-301.
4. Santamaría B, *et al.* 3, 4-Dideoxyglucosone-3-ene as a mediator of peritoneal demesothelization. *Nephrol Dial Transplant.* 2008 Oct; 23(10):3307-15.
5. Szeto CC, *et al*. The relationship between bone morphogenic protein-7 and peritoneal transport characteristics. *Nephrol Dial Transplant.* 2008 Sep; 23(9):2989-94.
6. Vargha R, *et al*. Effects of epithelial-to-mesenchymal transition on acute stress response in human peritoneal mesothelial cells. *Nephrol Dial Transplant.* 2008 Nov; 23(11):3494-500.
7. Wang HH, *et al.* Integrins mediate adherence and migration of T lymphocytes on human peritoneal mesothelial cells. *Kidney Int.* 2008 Sep; 74(6):808-16.

Invited Article

Peritoneal Dialysis in China: A Report from Shanghai Dialysis Registry (1999-2006)

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Despite a rapid increase in the utilization of PD in China over the past decade, national data regarding clinical outcomes are lacking due to the lack of a national dialysis registry. However, a few local registries do exist and contribute as a source of outcomes data in China today. The present report provides information from the Shanghai Dialysis Registry concerning the development of peritoneal dialysis (PD) in Shanghai. Data collected between 1999 and 2006 were used in the analysis. All 58 dialysis centers in Shanghai, of which 30 have a PD program, entered data into the registry.

Incidence and Prevalence of PD

The number of PD patients increased steadily between 1999 and 2006, when 705 new patients commenced dialysis, corresponding to a treatment rate of 51.5 pmp, versus 20.4 pmp in 1999. At the end of 2006, the point prevalence of PD was 88 pmp (1204 patients) versus 35 pmp (459 patients) in 1999 (Figure 1). The utilization of PD as a percentage of the total dialysis patient population exceeded 20% in 2006, compared to 16% in 1999. In 2006, the main cause of ESRD was chronic glomerulonephritis, affecting 40% of all patients. The second most common, which in 1999 used to be hypertension, was replaced by diabetic nephropathy in 2006.

Dialysis adequacy and infectious complications

Data regarding dialysis adequacy were reported from 57% of all PD patients in 2006. The mean weekly Kt/V was 1.73 and the mean weekly creatinine clearance (CCr) was 56.8 L/1.73 m^2. The mean prescribed 24-hour PD dose was similar in 1999 (7.7 L/24h) and 2006 (7.8 L/24h). Based on the 2006 data from the patients in whom PET was performed (66%), 12% were high transporters, 69% were average transporters (high-average + low-average), and 19% were low transporters.

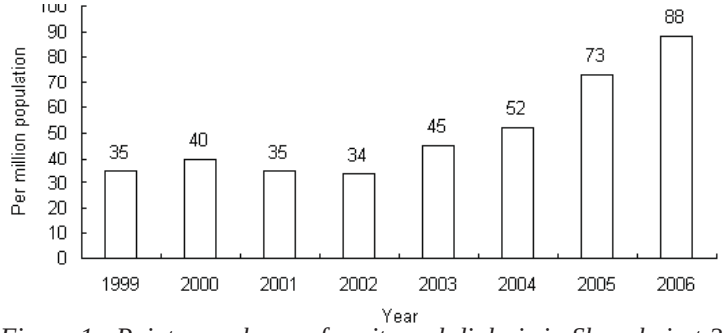

Figure 1. Point prevalence of peritoneal dialysis in Shanghai at 31 December, 1999 – 2006

The peritonitis rate decreased from 1 episode in 36.6 patient–months in 1999 to 1 episode in 48.8 patient–months in 2006. The percentage of patients transferring to HD because of infection also declined, from 2.2% to 1.6% over these 8 years. The prevalence of HCV among PD patients was 8.0% in 1999, and 4.8% in 2006. The HCV seroconversion rate decreased to 1.2% from 2.4%, while the percentage of HBsAg-positive patients remains unchanged (14%) over the study period.

Patient outcomes

The annual death rate decreased from 16.1% in 1999 to 10.3% in 2006. Although the average peritonitis rate decreased, infection was still the leading cause of mortality, accounting for 24% of all deaths in 2006. The second and third main causes of death among PD patients were cardiovascular and cerebrovascular disease, respectively accounting for 18% and 11% of all deaths in 2006. By the end of 2006, 645 patients had survived on PD for more than 2 years, and 127 patients for more than 5 years.

Future and Challenge

The Shanghai Dialysis Registry was started in 1996 by the Shanghai Center for HD Quality Control and has provided valuable information regarding changes in outcome and other quality of care related parameters. It is clear that in parallel with an increasing use of PD clinical outcomes have improved significantly over the past decade in Shanghai. As the dose of dialysis has not changed and no new products have been introduced, it is assumed that the main factor driving this improvement is enhanced clinical management, which is likely related to a gradual increase in the knowledge and expertise in PD, which is possibly a consequence of both enhanced education and an increasing number of PD patients per center. The main challenges for the future include an expected increase in the number and percentage of PD patients with diabetes. At the same time, it is expected that wider use of automated PD and the introduction of new, advanced PD solutions will allow for further improvements in clinical outcome.

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