

Encapsulating peritoneal sclerosis in patients on peritoneal dialysis

Dear Editor,

We would like to give some comments on the review on encapsulating peritoneal sclerosis (EPS) in peritoneal dialysis (PD) patients by Hendriks *et al.*¹ The authors omitted some relevant references from the Netherlands, such as studies on clinical manifestations² and on the histological abnormalities.³ Beta-blockers and chlorhexidine are mentioned as risk factors for the development of EPS. Although this might be true, it is outdated since the currently available β -blockers are not associated with EPS and chlorhexidine is no longer used as a disinfectant. We do agree that calcineurin inhibitors might contribute to the progression of fibrosis.⁴

The authors suggest that the incidence of EPS has increased, although this has never been documented in international studies. An analysis of the incidence in the patient population in the Academic Medical Center Amsterdam is given in *figure 1*. It shows the absence of a rise and perhaps even a decrease. This may be caused by our policy to prescribe icodextrin-based solutions since 1996 and biocompatible solutions since 2000 in a number of patients. Since January 2004, we prescribe biocompatible and icodextrin based solutions only. A pathogenetic role of icodextrin is unlikely since a 4% solution is very effective in the prevention of reoccurrence of abdominal adhesions.⁵

The authors present a proposal for an EPS prevention guideline. This is not evidence based and puts very much emphasis on the value of computerised tomography (CT) scanning. Although marked abnormalities often occur in patients with an established diagnosis,⁶ its value as a tool for screening has never been established. A recent study

even showed that prediagnostic CT scans of patients who subsequently developed EPS are normal or near normal in most cases.⁷ The potential value of regular assessment of peritoneal function using a 3.86% glucose-based dialysis solution with measurement of free water transport and determination of effluent CA₁₂₅ has not been included in the algorithm. Yet, an analysis of time trends in peritoneal transport has shown evident trends.^{8,9} Therefore, we do not agree that discontinuation of PD should be considered in long-term PD patients without any sign of changes in the peritoneum. We have provided the quality committee of the Netherlands Federation of Nephrology with a proposal for a guideline on regular measurement and interpretation of peritoneal function.

D.E. Sampimon, A. Vlijm, D.G. Struijk, R.T. Krediet
Department of Nephrology, Academic Medical Centre, Meibergdreef 9, 1105 AZ Amsterdam, the Netherlands

REFERENCES

- Hendriks MP, de Sévaux RGL, Hilbrands LB. Encapsulating peritoneal sclerosis in patients on peritoneal dialysis. *Neth J Med.* 2008;66:269-74.
- Hendriks PMEM, Ho-dac-Pannekeet MM, van Gulik TM, et al. Peritoneal sclerosis in chronic peritoneal dialysis patients: analysis of clinical presentation, risk factors and peritoneal kinetics. *Perit Dial Int.* 1997;17:136-43.
- Mateijsen MAM, van der Wal AC, Hendriks PMEM, et al. Vascular and interstitial changes in the peritoneum of CAPD patients with peritoneal sclerosis. *Perit Dial Int.* 1999; 19:517-25.
- Van Westrhenen R, Aten J, Hajji N, et al. Cyclosporin A induces peritoneal fibrosis and angiogenesis during chronic peritoneal exposure to a glucose-based lactate-buffered dialysis solution in the rat. *Blood Purif.* 2007;25:466-72.
- Brown CB, Luciano AA, Martin D, et al. on behalf of the Adapt Adhesion Reduction Study Group. Adept (icodextrin 4% solution) reduces adhesions after laparoscopic surgery for adhesiolysis: a double-blind, randomized controlled study. *Fertil Steril.* 2007;88:1413-26.
- Stafford-Johnson DB, Wilson TE, Francis IR, Swartz R. CT Appearance of sclerosing peritonitis in patients on chronic ambulatory peritoneal dialysis. *J Comput Assist Tomogr.* 1998;22:295-9.
- Tarzi RM, Lim A, Moser S, et al. Assessing the validity of an abdominal CT scoring system in the diagnosis of encapsulating peritoneal sclerosis. *Clin J Am Soc Nephrol.* 2008; Epub ahead of print.
- Krediet RT, Struijk DG, Boeschoten EW, et al. The time course of peritoneal transport kinetics in continuous ambulatory peritoneal dialysis patients who develop sclerosing peritonitis. *Am J Kidney Dis.* 1989;13:299-307.
- Sampimon DE, Coester AM, Struijk DG, Krediet RT. Time course of peritoneal transport parameters in peritoneal dialysis patients who develop peritoneal sclerosis. *Adv Perit Dial.* 2007;23:107-11.

Figure 1. The number of patients with EPS in the AMC Amsterdam

