Peritoneal Dialysis in Spinal Cord Injury

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Dear Sir,

We read with keen interest the case report of Smith et al. [1] on peritoneal dialysis in a patient with spinal cord injury. We wish to report a patient from our end-stage renal disease (ESRD) program who had been maintained on CAPD exclusively for 29 months.

A 46-year-old white male developed ESRD in July 1984 from chronic tubulo-interstitial nephropathy associated with recurrent urinary tract sepsis and struvite stone formation. He had sustained spinal cord injury in 1950 at the time of repair of coarctation of aorta which left him with paraplegia at the 10th thoracic level and an autonomic bladder. The patient was trained for CAPD, a Tenckhoff catheter was placed in the peritoneal cavity, wounds were allowed to heal and CAPD was commenced using 2.5% dextrose containing dialysate, 3 exchanges daily. He was allowed to use 4.25% solution on once a day basis whenever thought necessary based on fluid balance. He has completed 29 months on CAPD and has only 1 episode of peritonitis during this period. He needed to be hospitalized on 4 occasions for sacral decubitus ulcers with underlying osteomyelitis and cellulitis of the right gluteal region, which were treated with prolonged antibiotic coverage and surgical debridement.

Laboratory data (mean $\pm$ SD) collected during the past 8 months of his course are shown below:

The above patient was started on CAPD for reasons well outlined in the case report of Smith et al. [1]. If adequate oral intake could be ensured in spinal cord injury patients with ESRD, malnutrition due to dialysate protein losses could be overcome. Pulmonary abnormalities or gastrointestinal complications were not noticed in our patient. The frequency of peritonitis was 0.4 episode per 12 patient months; less than so far reported [1, 2]. Our patient's survival on CAPD has also been considerably longer than reported by Smith et al. [1] despite the fact that his course has been troubled by need for hospitalization for debridement of sacral decubitus ulcers.

References

Smith, B.; Sica, D.A.; Stacy, W.: Peritoneal dialysis in spinal cord injury. Nephron 44:245–248 (1986).

Vaziri, N.D.; Lopez, G.; Nikakhtar, B.; Gordon, S.; Pendera, N.: Peritoneal dialysis in renal failure associated with spinal cord injury. J. Am. Paraplegia Soc. 7:63–65 (1984).

S. sodium, mmol/l

S. potassium, mmol/l

S. chloride, mmol/l

S. CO₂ content, mmol/l

Blood urea nitrogen, mg/dl

S. creatinine, mg/dl

S. calcium, mg/dl

S. phosphate, mg/dl

S. proteins (total), g/dl

S. albumin, g/dl

S. transferrin (204–360), mg/dl

Hemoglobin, g/dl

Hematocrit, %

138.1 ± 3.1

5.8 ± 1.2

99.3 ± 3.1

20.3 ± 3

83.3 ± 18

12.9 ± 1 9.4 ± 0.1 7.7 ± 0.7 7.0 ± 0.4 3.2 ± 0.2 220.3 ± 29.9 8.4 ± 0.2

26.3 ± 0.7