DIALYSIS

First catheter insertion for peritoneal dialysis—surgery versus radiology

The radiological insertion of a first peritoneal dialysis (PD) catheter under fluoroscopic guidance seems to be clinically noninferior to and cheaper than catheter insertion using laparoscopic surgery, say researchers in New Zealand.

Use of laparoscopic surgery to insert PD catheters has good results with minimal invasiveness and patient risk, but there is still potential for anaesthetic complications. Voss *et al.* hypothesized that radiological insertion would be as efficacious as laparoscopy, and perhaps better tolerated and less expensive.

The researchers randomly assigned 113 patients receiving their first PD catheter to have it inserted either under local anaesthesia by a radiologist using fluoroscopic guidance ($n=57$) or under general anaesthesia by a surgeon using laparoscopy ($n=56$). In total, 51 patients received a catheter via the radiological method and 51 received a catheter via the laparoscopic method.

At 1 year, complication-free catheter survival was higher in the radiological group than in the laparoscopic group (35.4% versus 8.4%; $P=0.02$). Neither death-censored overall catheter survival nor patient survival differed between the groups at 1 year. Voss *et al.* report that the radiological group reported less postprocedural pain and that hospital costs were almost twice as high in the laparoscopic as in the radiological group.

“In summary, our study shows that radiological insertion of first PD catheters by percutaneous fluoroscopy to be safe and efficacious, inexpensive and available to a large proportion of patients who require PD,” say the authors.

Rebecca Kelsey

Original article Voss, D. *et al.* Radiological versus surgical implantation of first catheter for peritoneal dialysis: a randomized non-inferiority trial. *Nephrol. Dial. Transplant.* doi:10.1093/ndt/gfs305