

## A comparative study on using coiled versus straight swan-neck Tenckhoff catheters in patients undergoing peritoneal dialysis

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### Abstract

The key to successful long-term peritoneal dialysis (PD) is permanent and safe access to peritoneal cavity. The two most commonly used Tenckhoff catheters for PD are the straight and coiled catheters. The present study was undertaken to assess the catheter survival, catheter associated infections, and all cause mortality and to compare the straight with coiled catheters in PD. During April 1997-August 2006, 96 patients undergoing peritoneal dialysis in Ghaem Hospital, Mashhad, Iran were enrolled in this study. In 53 patients straight catheter and in 43 patients coiled catheter were used. The catheter survival, and catheter associated infections including peritonitis and exit site infection rate were compared between the two groups. The catheter survival in the two groups was in favor of coiled ones. Catheter associated peritonitis and exit site infection were more prevalent in patients with straight catheters ( $P=0.027$  and  $P=0.006$  respectively). Overall patient survival rate was not different between the two groups ( $P=0.919$ ). There was no difference regarding tunnel infection between the two groups ( $P=0.673$ ). Straight PD catheters were not associated with more overall patient mortality rate but less catheter survival was noted in this group. In comparison with coiled PD catheters, peritonitis and exit site infection were seen more frequently in patients dialyzed using straight catheters. We found no difference regarding leakage episodes ( $P=0.562$ ) or re-operation due to catheter malposition resulting in catheter salvage ( $P=0.26$ ). Overall re-operation rate was not different between the two groups ( $P=0.732$ ). Straight PD catheters were not associated with more patients' mortality rate but had less catheter survival than coiled PD catheters. Peritonitis and exit site infection were found more frequently in patients dialyzed with straight catheters.

### Reaxys Database Information

### Author keywords

Catheters; Peritoneal dialysis; Peritonitis; Survival

### Indexed Keywords

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