Is It Safe to Initiate Peritoneal Dialysis Treatment Immediately After Percutaneous Catheter Placement?

In this retrospective study, the safety of initiating peritoneal dialysis (PD) immediately after percutaneous PD catheter insertion was evaluated. Patients who underwent peritoneal catheter insertion and then immediately began dialysis treatment were included in the study. Patient age, sex, treatment modalities, and method of catheter insertion were recorded.

Acute PD was performed in 33 patients (age: 57.7 ± 16.7 years; 21 men, 12 women). Catheters were inserted percutaneously in 28 patients and surgically in 5 patients. The PD modalities used were continuous ambulatory PD in 18 patients, automated PD in 11 patients, and both modalities in 4 patients. Acute PD was started within 24 hours of catheter insertion. Leaks occurred in 8 patients who had catheters inserted percutaneously (28.5%). Peritonitis occurred in 1 patient. No complications were observed in 24 patients. Leaks were fully resolved for patients kept in a supine position, with fill volumes reduced to 500 mL – 700 mL and the dwell period decreased to 60 minutes from 120 minutes. Leaks were not observed in the patients when the fill volume was increased by 200 mL and the dwell period was increased by 30 minutes every 2 days to reach 1300 mL and 180 minutes by the 7th day.

Immediate-start dialysis after percutaneous peritoneal catheter insertion seems safe when performed in a supine position with low-volume exchanges and short dwell times.

Key words
Peritoneal catheter placement, immediate dialysis initiation, safety
Leaks occurred in 8 patients whose catheters had been inserted percutaneously (28.6%), and peritonitis occurred in 1 patient; no complications were observed in the remaining 24 patients. The leaks were fully resolved by keeping the patients in a supine position, reducing the fill volume to 500 mL – 700 mL, and decreasing the dwell time to 60 minutes from 120 minutes. No further leaks in these patients were observed when exchanges with low volumes and short dwell times were used in patients kept in the supine position. Another study reported results similar to those in our study; however, that study gave patients a 24-hour break between dialysis sessions (6). Our study continued dialysis, with resolution of the leaks and no need for a break. Wang et al. (7) reported that dialysis could safely be started between 7 days and 1 month of catheter placement. Their study contrasts with ours, despite showing similar results. In our study, dialysis was started within 72 hours of catheter insertion, and even within 24 hours for most patients (n = 21, 64%), which is an approach different from that used in the study by Bitencourt Dias et al. (6).

Conclusions
Our results suggest that it seems to be safe to start dialysis immediately after percutaneous PD catheter insertion when dialysis is performed using low-volume exchanges and short dwell times with the patient in a supine position. Further studies in larger patient populations are necessary to confirm those findings.

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Disclosures
I understand that Advances in Peritoneal Dialysis requires disclosure of any conflicts of interest, and I declare that I have no conflicts to disclose.

References


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