PERITONEAL DIALYSIS CATHETER INSERTION: Mastering the Art in Nephrology Practice



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INTRODUCTION

The success rate of peritoneal dialysis catheter (PDC) insertion vary among different techniques and operators. Traditionally, surgeons have inserted Tenkchoff catheters. Tenckhoff catether placement with percutaneous technique has become a viable skill in interventional nephology PD access programs. Therefore, we want to know if there are differences in catheter placement outcomes between nephrologists and surgeons.

OBJECTIVE

To analyze differences in complications rates, break in time and catheter survival in peritoneal dialysis catheter placed by Nephrologists compared to Surgeons with a 30-day follow-up after insertion.

Evaluated complications (3 techniques) Infectious Mechanical Hemo-Major Fluid leak Migration complications peritoneum malfunction Peritonitis and tunnelitis 000

Mechanical malfunction





RESULTS

265 patients undergoing PDC placement were analyzed,: 61.5% were placed by nephrologists and 38.4% by surgeons. For immediate complications there was no significant difference between groups (Fig. 2). The main cause for need of PDC replacement was infectious complications, more common un surgery group (Fig. 3). Catheter break-in time were <12 hours in 88% for NG and >48 hours in 78% of SG. (Fig. 4) There was no correlation between the different PDC insertion techniques and complications, with an OR of 0.6, 0.61 and 0.8 for styletguided, percutaneous non-ultrasound guided and percutaneous ultrasound-guided, respectively, with a 95% CI.



METHODS

Multicentric cross sectional study from 2018-2022. PDC insertion was performed by nephrologist and surgeons with 3 different techniques: stylet-guided or minilap, percutaneous non-ultrasound guided and ultrasound-guided.



Scan to watch the

technique video

The evaluated complications related with divided procedure were by time: immediately and 30 day follow-up. (fig. 1)

	Complications		
	Migration	Fluid leak	Hemo- peritoneum
Immediately		2000-	•
Group	2ax		
n=163	12 %	8.6%	2.5%
A	p= 0.12	p= 0.14	p= 0.3
	5.9%	3.9%	0%
n=102			

Figure 2. In Immediately complications we did not find any significance difference between Nefrology group vs surgeons.

Figure 3. Infectious complications were more common in procedures performed by surgeons.



Figure 4. The percutaneous technique is BETTER for urgent-start PD

CONCLUSIONS

Peritoneal dialysis programs led by Nephrologists are associated with better success rate, superior catheter survival, shorter hospital stays and shorter catheter break-in time compared with surgical peritoneal dialysis catheter placement.