

# PERCUTANEOUS CAPD CATHETER INSERTION BY NEPHROLOGISTS: FIRST SRI LANKAN EXPERIENCE (WCN24-AB-306)

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## INTRODUCTION

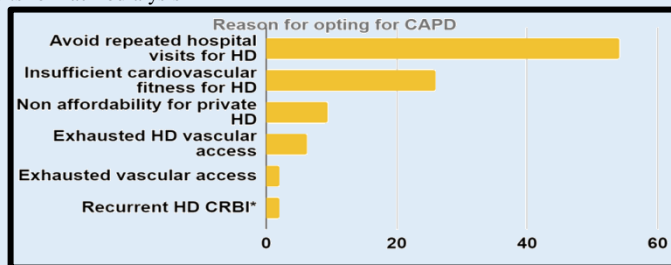
The growing burden of end-stage kidney disease (ESKD) has increased the demand for renal replacement therapy. CAPD catheters are currently placed using various techniques, including both percutaneous and surgical methods. In patients with End-stage kidney disease, Continuous Ambulatory Peritoneal Dialysis (CAPD) with a percutaneously placed catheter is an established effective mode of renal replacement therapy. We conducted the first Sri Lankan study to measure the outcomes of percutaneous CAPD catheter insertions performed by a nephrology team.

## METHODOLOGY

We retrospectively studied 96 patients in two selected tertiary care centres in Sri Lanka, who underwent percutaneous CAPD catheter insertion over two years with a follow up period of minimum three weeks. CAPD catheter was placed using modified seldinger technique under local anaesthesia with ultrasound guidance.

## RESULTS

The majority were males (78.1%) with median age of CAPD catheter insertion of 56 years (Inter-quartile range 48-62). Hypertension (87.5%) was the commonest comorbidity. Majority of the patients were on haemodialysis (85.4%) prior to CAPD initiation. The most common reason for opting for CAPD was to avoid repeated hospital visits for haemodialysis



During follow-up, 85.4% were free of complications. Most common non-infectious complications were visceral injury and insertion failure. We encountered 2.1% of exit-site infection, but not a single tunnel infection. Overall peritonitis rate was 0.4 episodes per patient-year. None of the patients were referred for surgical re-insertion and there was no procedure-related mortality.

Complications -free		Reason for removals	
	Patients (n, %)		Patients (n, %)
<b>Mechanical Complications</b>		Drainage failure resulting in fluid overload	4 (33.3%)
Removal	12 (12.5%)	Recurrent peritonitis	3 (25.0%)
Visceral injury (Bowel perforation and bowel puncture)	4(4.2%)	Removal for transplant	3 (25.0%)
Primary insertion failure	4 (4.2%)	Fungal infection	2 (16.7%)
Catheter dysfunction	2 (2.1%)		
Immediate haemorrhagic drain	2 (2.1%)		
Leakage	1 (1.0%)		
<b>Infectious Complications</b>			
Pre-training peritonitis	2(2.1%)		
Exit site infections	2(2.1%)		

## CONCLUSION

Percutaneous CAPD catheter insertion by nephrologists was efficacious and safe. We recommend further studies comparing percutaneous versus surgical placement.

## REFERENCE

1. Varughese S, Sundaram M, Basu G, Tamilarasi V, John GT. Percutaneous continuous ambulatory peritoneal dialysis (CAPD) catheter insertion – a preferred option for developing countries. Trop Doct. 2010;40(2):104–5.
2. Jonny, Supriyadi R, Roesli R, Bak Leong G, Hilman LP, Arini FC. A Simple Tenckhoff Catheter Placement Technique for Continuous Ambulatory Peritoneal Dialysis (CAPD) Using the Bandung Method. Int J Nephrol. 2020;2020.
3. Ponce D, Banin VB, Bueloni TN, Barretti P, Caramori J, Balbi AL. Different outcomes of peritoneal catheter percutaneous placement by nephrologists using a trocar versus the Seldinger technique: The experience of two Brazilian centers. Int Urol Nephrol. 2014;46(10):2029–34.
4. Al-Hwiesh AK. Percutaneous versus laparoscopic placement of peritoneal dialysis catheters: simplicity and favorable outcome. Saudi J Kidney Dis Transpl. 2014;25(6):1194–201.
5. Agarwal A, Whitlock RH, Bamforth RJ, Ferguson TW, Sabourin JM, Hu Q, et al. Percutaneous Versus Surgical Insertion of Peritoneal Dialysis Catheters: A Systematic Review and Meta-Analysis. Can J Kidney Health Dis. 2021;8.