

Exploring reasons for early drop-out within first year of peritoneal dialysis: What can we learn?

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ABSTRACT

Introduction: Peritoneal dialysis (PD) is an effective home-based modality with survival rate comparable to hemodialysis. However, early drop-out within the first year of PD remains a significant challenge, impacting both patient outcome and healthcare resources. This study aims to explore the underlying reasons for early PD discontinuation at our center. **Materials and Methods:** This retrospective cohort study included all adult end stage kidney disease (ESKD) patients who started PD between April 2021 and March 2023 at Hospital Sultan Idris Shah, Serdang. Patients' demographics were reviewed and they were followed up at least one year. **Results:** A total of 223 patients were included in this study. The mean age was 51.9 ± 13.3 years, with majority being male (56%), Malay (62.3%) and diabetic (72.2%). Diabetic kidney disease was the leading cause of ESKD (60.1%). Selfcare PD accounted for 60.1% of patients, while 39.9% received assisted PD. Fifty-six patients (25.1%) had early drop-out within first year of PD. The primary reasons for early drop-out were transfer to hemodialysis (HD) (51.8%), followed by death (48.2%). Among those transferred to HD, PD associated peritonitis was the major contributing factor (62.1%) followed by catheter dysfunction (27.6%), patient preference (6.9%) and membrane failure (3.4%). Among death, 37% were brought in dead to the emergency department with an undetermined cause, followed by non-PD related infection (29.6%) and cardiovascular disease (25.9%). **Conclusion:** Our study shows that PD-associated peritonitis and cardiovascular mortality are the primary reasons for early drop-out among newly initiated PD patients. This emphasizes the importance of continuous patient education, effective infection preventive strategies and early treatment in minimizing technique failure due to PD-related infections. Additionally, early cardiovascular risk assessment and interventions, along with a comprehensive approach targeting both traditional and non-traditional risk factors, are essential for reducing cardiovascular death among high-risk dialysis population.