

Experience of Continuous Ambulatory Peritoneal Dialysis in Remote Area of Southeast Bangladesh

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Abstract : Background: Chronic kidney disease (CKD) is a major public health problem that continues to increase in prevalence globally. The prevalence of chronic kidney disease is increasing day by day in low to middle income countries (LMICs). People living in LMICs have the highest need for renal replacement therapy (RRT) despite they have lowest access to various modalities of treatment. As continuous ambulatory peritoneal dialysis (CAPD) does not require advanced technologies, very much infrastructure, dialysis staff support, it should be an ideal form of RRT in LMICs, particularly for those living in remote areas. To authors knowledge there was scarcity of data regarding CAPD performance in remote area of Bangladesh. This study was aimed to report the characteristics and outcomes of CAPD in ESRD patients lived in least developed area of Bangladesh. Methods: This prospective study was conducted in Cox'sbazar Medical College Hospital, Cox'sbazar and Parkview hospital Ltd, Chattogram, Bangladesh. Data were collected by questionnaire from the patients of any age with end-stage renal disease (ESRD) who underwent CAPD in 2018-2021. The baseline characteristics, PD-related complication as well as patient and technique survivals were analyzed. Results: Out of 31 patients who underwent CAPD, 18 (58%) were male on the age range of 15-79 years. The mean follow-up duration was 18 months. Mortality was inversely related with the EF of echocardiography. The peritonitis rate was 0.48 episodes per patient per year. The 1, 3 and 4-year patient survival rates were 64.34% (95% CI = 52.5-81.5), 23.79% (95% CI = 17.9 - 57.4) and 3.22% (95% CI = 31.2-77.5) respectively. Conclusions: In this study, CAPD performance was poorer than usual reference. Cardiac compromised patient and inappropriate dwell might be the main contributing factors behind this scenario. The peritonitis rate was nearly similar to that of developed countries. CAPD was cost effective than HD in remote area. Some accessible measures may be taken to make CAPD a more acceptable RRT modality with improved outcomes in poor socioeconomic backgrounds.

Keywords : dialysis cost, peritoneal dialysis, peritonitis, CAPD, least developed area, remote area, Bangladesh

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