

Peritoneal Dialysis in Acute Kidney Injury, Available anytime and anywhere

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Introduction

Acute peritoneal dialysis (APD) is one of the treatments of choice for acute kidney injury (AKI) patients both in and out the intensive care unit (ICU).

APD need less equipment used and more available than the continuous renal replacement therapy (CRRT). However large series of APD in AKI have never been documented.

Methods

We collected the data in the tertiary teaching-based hospital in the north-eastern part of Thailand. During one year period, 167APD in AKI patients had been performed. Baseline characteristic data, time to start APD and clinical outcomes were collected.

Results

Nightly-four APD patients were analyzed (Patients who dead with in 24 hour after start APD and combined APD with hemodialysis or CRRT were excluded). Mean age of patients was 56 ± 16 years. Most of patients (86%) required inotropic drugs and ventilator support (90.4%) at the starting APD. About 73.4% of patients were monitored in ICU. APD could be performed anytime. About 28.7% of patients were performed APD during the nighttime (6 P.M. to 6 A.M.). Overall mortality was 67%. There was no difference in mortality rate between the time to starting APD (daytime and nighttime, 64.1% vs 74.1%, $P=0.35$ respectively).

Conclusion

APD was the treatment of choice in AKI patients especially in the hemodynamically unstable patients and unavailable CRRT. APD could be started anytime and anywhere. However, the mortality rate of AKI patients was still high despite APD support.

Reference

- Chionh CY, Soni SS, Finkelstein FO, Ronco C, Cruz DN. Use of Peritoneal Dialysis in AKI: A Systematic Review. Clinical Journal of the American Society of Nephrology. July 5, 2013.
- Ponce D, Berbel MN, Regina de Goes C, Almeida CT, Balbi AL. High-volume peritoneal dialysis in acute kidney injury: indications and limitations. Clin J Am Soc Nephrol. 2012 Jun;7(6):887-94.

Baseline data	N=94
Age (SD)	56 (16)
Male	64 (68%)
DM	27 (28.7%)
CVD	11 (11.8%)
Chronic Lung disease	16 (17%)
CAD	8 (8.7%)
Chronic liver disease	1 (1)
CKD	18 (19.7%)
AKI due to ATN	87 (92%)
Unstable hemodynamic	80 (86%)
Need respirator support	85 (90.4%)
ICU admission	69 (73.4%)
Laboratory at start dialysis	
BUN [median (IRQ)] mg/dl	70.5 (46-98)
Cr [median (IRQ)] mg/dl	6.28 (4.45-8.2)
Alb [median (IRQ)] g/dl	3.0 (2.6-3.4)

