

# Peritoneal Dialysis in Neonates : Experience of a Tertiary Care Center from India

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## BACKGROUND

- Acute peritoneal dialysis (APD) is a modality for renal replacement as well as renal support therapy for neonates both for renal and non renal indications.
- In neonates blood based dialysis is always challenging by the virtue of getting a good vascular access.
- APD has been successfully used to treat Acute Kidney Injury (AKI) across all age groups, including neonates with sepsis and post op congenital heart disease. '

## OBJECTIVES

 To evaluate the indications, complications and outcomes of acute peritoneal dialysis in newborns admitted in Sir Ganga Ram Hospital (SGRH), New Delhi, India.

## **METHODS**

- Retrospective analysis included 75 newborns admitted in an intensive care unit between 2011 to 2022.
- Demographic, clinical and laboratory data were extracted form patients medical records.



### DISCUSSION AND CONCLUSION

- · Neonatal kidneys are vulnerable to birth asphyxia and sepsis.
- Peritoneal dialysis is a continuous process, less pro-inflammatory and is more suitable for hemodynamically unstable neonates.
- Peritoneal dialysis is a safe and effective modality of renal replacement therapy in the neonatal period for both renal and non renal indications.
- Our study clearly demonstrates that bed side acute peritoneal dialysis is safe and effective in neonates requiring
  peritoneal dialysis for various reasons.

#### REFERENCES

1. Mathews DE,. et al.( 1990) Peritoneal Dialysis in the first sixty days of life. J Pediatr Surg. 1990 jan ; 25(1): 110-5

2. Noh, J., Kim et al. Challenges of acute peritoneal dialysis in extremely low birth weight infants : A retrospective Cohort study. BMC Nephrol. 2020 oct 19; 21(1), 437.

- According to Kim et al<sup>2</sup>, from Korea the most common complication of peritoneal dialysis was mechanical dysfunction of the catheters (75%) as compared to only 10% in our study.
- Peritonitis was seen in only 14% of neonates in our study which was slightly higher than Kim et al<sup>2</sup> (8%).
- The mortality rate of the infants who underwent APD was 91.7% in the study by Kim et al<sup>2</sup>, while in our study we were able to successfully discharge 50% of the neonates.

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