



IMPROVISED EMERGENCY PERITONEAL DIALYSIS IN CHILDREN WITH ACUTE KIDNEY INJURY AMID WAR IN TIGRAY, NORTHERN ETHIOPIA: TWO TEACHING CASES

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Background:

- Two-year armed conflict in Tigray devastated healthcare.
- Improvised peritoneal dialysis (PD) became the only KRT for children with AKI.

Case 1:

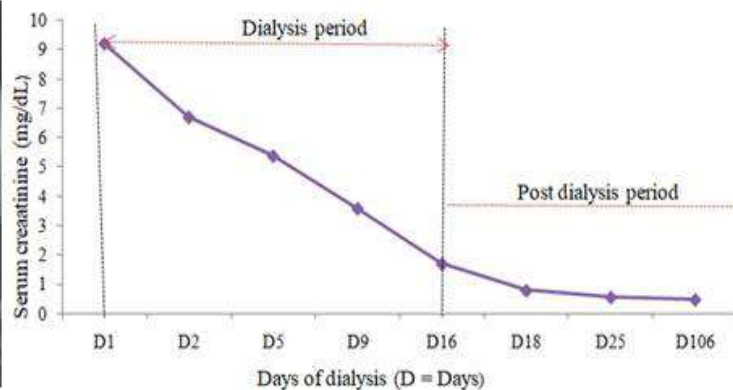
- **4-year-old boy:** Severe malaria, septicemia, stage III AKI (anuric; SCr: 9 mg/dL).
- **PD Method:** Modified nasogastric tube (NGT) and Ringer's lactate.
- **Complication:** Mechanical obstruction on day 5; catheter replaced.
- **Outcome:** Urine output improved; discharged after 25 days (SCr: 0.5 mg/dL).

Case 2:

- **13-year-old boy:** RVHD, infective endocarditis, stage III AKI (SCr: 15.5 mg/dL).
- **PD Method:** Same as Case 1.
- **Complications:** Peritonitis (*Acinetobacter spp.*), severe hypoalbuminemia.
- **Outcome:** Urine output improved; discharged after 27 days (SCr: 0.8 mg/dL).

Improvise PD Solution:

- **2.5% Dextrose Solution:** 62 mL of 40% dextrose + 1 L Ringer's lactate.
- **1.5% Dextrose Solution:** 37 mL of 40% dextrose + 1 L Ringer's lactate.
- **Additives:** Potassium (4 mmol/L) if serum K < 4 mmol/L; Heparin (500 IU/L).



Conclusion: Improvised PD saves lives in resource-limited, crisis settings.

Reduced AKI-related morbidity and mortality