

Early Dialysis and innovations for better outcome in Lassa fever patients with acute kidney injury

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Introduction

Acute kidney injury (AKI) is recognized complication of Lassa fever (LF) and is associated with poor outcomes. To improve prognosis, Irrua Specialist Teaching Hospital (ISTH) implemented a multifaceted approach in the management of patients with AKI. This included reduction in the threshold for Hemodialysis (HD), cautious use of heparin and pre-dialysis optimization of patient's status by transfusion with blood transfusion and blood products, inotropic support, correction of dehydration and hypoglycemia, appropriate catheter use. This study reviewed the outcome of critically ill LF patients with AKI who had Hemodialysis during the 2023 outbreak at ISTH.

Methods

This was a retrospective observational study. The demographic, clinical and laboratory data of 19 critically ill LF patients diagnosed with AKI during the January to May 2023 outbreak were extracted from medical records and analyzed using IBM SPSS version 21.

Results

A total of 19 patients with mean age 44.2±14.8 years met the criteria for HD. Majority (68.0%)

were males. A total of 70 HD sessions were performed with an average of 3.69 session per patient. Four patients (21.1%) presented late and received only one session of HD with 100% mortality. Fifteen patients (78.9%) received two or more sessions HD with three mortalities (15.7%). Disequilibrium syndrome and bleeding diathesis were observed in two patients (10.5%). There was no incidence of deep vein thrombosis.

Conclusion

Early initiation of HD in LF-associated AKI appeared to improve survival. Factors contributing to poor outcomes included delayed presentation, intradialysis complications and multi-organ failure. Caution in the use of heparin, and careful catheter selection may contribute to favorable outcomes observed during the outbreak.