

Albumin Infusion in Children With Fluid Refractory Severe Dengue: A Comparative Study

Original Article

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ABSTRACT

OBJECTIVES

To evaluate the effect of 25% albumin in addition to standard treatment (ST) in children with fluid refractory severe dengue on morbidity and mortality compared with ST alone.

METHODS

This was a comparative study that enrolled children aged 2 months to 18 years with severe dengue who presented to emergency between 2021–2023. Patients who were in circulatory shock after 40 mL per kg of crystalloid/colloid bolus within 1-2 hours of admission were equally categorized into two groups. ST-plus albumin group enrolled patients prospectively and received an albumin infusion (0.5-1 g/kg) in addition to ST as per WHO guidelines. ST-only group enrolled patients retrospectively who had received only ST. Demographic data, clinical course, laboratory parameters and outcomes were compared.

RESULTS

Baseline characteristics were comparable between the two groups. Survival was significantly higher in the ST-plus albumin group (97.1%) than in the ST-only group (77.1%); $P = 0.043$. The need for inotropic support was significantly lower in ST-plus albumin group (60%) than ST-only group (94.3%); $P < 0.001$. The incidence of bleeding ($P = 0.008$), AKI ($P = 0.065$), need for diuretics ($P = 0.029$) and renal replacement therapy ($P = 0.028$) were significantly lower in children in the ST-plus albumin group than ST-only group.

CONCLUSION

The addition of 25% albumin to fluid refractory severe dengue early in the disease course led to better survival, less fluid accumulation and bleeding, and lesser incidence of complications.

Keywords: Colloid, Crystalloid, Dengue virus, Fever, Hypotension, Outcomes

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