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Aim

To compare the safety and efficacy of SV PLEX with HV PLEX.

Background

Plasma exchange (PLEX) is an effective bridging therapy for patients with acute liver failure (ALF). There are no studies comparing the efficacy of standard volume (SV) vs. high volume (HV) PLEX.

Results

A total of 17 patients underwent PLEX: SV-8 and HV-9.

Mean age and severity scores - Similar

Most common cause of ALF : Viral

Median Session of PLEX : 2

There was a significant decrease in serum bilirubin levels and prothrombin time in both the groups post-PLEX. Post-PLEX, the change in total bilirubin, INR, ammonia, SOFA, and MELD Na score was comparable (Fig. A).

Mortality at 7 day : Similar among both groups (SV-12.5% vs. 33.3% in HV; P=0.57).

Mortality at day 30 : 25% in SV compared to 67% in the HV group (P=0.1). Two patients in the HV group developed volume overload features and were managed conservatively compared to none in the single volume group.

Conclusion

Standard volume plasma exchange has **similar efficacy** as high volume plasma exchange on severity scores.

Standard volume plasma exchange is **safe and effective** for patients with acute liver failure.

Methods

Patients with ALF who underwent PLEX were included in this **Retrospective study**.

Primary outcome: To compare the transplant-free survival among SV (total plasma volume x 1) and HV (total plasma volume x 1.5) PLEX groups at 30-days.

Secondary outcome: To compare the effect of SV and HV PLEX on total bilirubin, INR, ammonia levels, SOFA, and MELD Na scores, To assess the adverse events related to PLEX.

Variables	Standard Volume	High volume	P-value
Total bilirubin	-6.53±5.45	-9.8±6.86	0.30
PT	-34.9±30.21	-26.52±17.16	0.48
INR	-2.35±1.48	-2.32±1.46	0.96
SOFA	-0.62±0.74	-0.12±1.16	0.30
MELD NA	-10.12±4.94	-10.55±7.8	0.89
Ammonia	-11.33±29.6	-39.37±28.21	0.09

FIG A

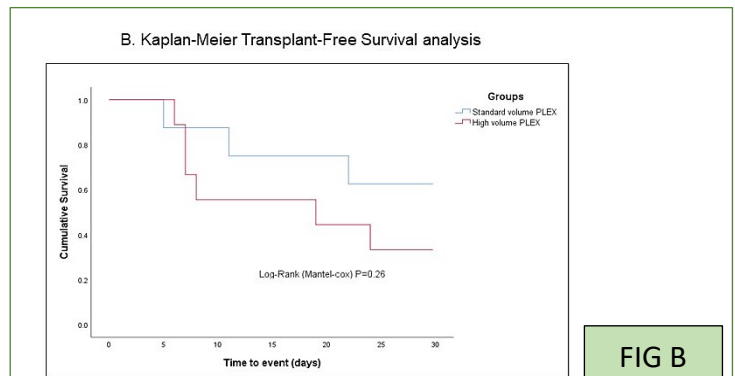


FIG B

Kaplan Meier analysis, transplant-free survival at day 30 was similar in both the groups (P=0.26)(Fig B)

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