



Submission No.: CS03-9238

Session : Concurrent Symposium 3 (Liver)

Date & Time, Place : November 17 (Fri), 15:10-16:40, Room 5F-1

Session Title : Update: Recent advances in LT

Extracorporeal Liver Support for Liver Failure

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This lecture will provide an overview of the current modalities of extracorporeal liver support that can be utilized in the management of acute liver failure and acute on chronic liver failure. Following an introduction to 'artificial' and 'bio-artificial' liver support systems, the major focus of the talk will be on artificial liver support systems. Within the context of artificial liver support systems, three specific modalities will be discussed: (a) *Albumin dialysis utilizing the Molecular Adsorbent Recirculating System (MARS)*: The principles and application of albumin dialysis will be reviewed, and its specific evidence based application in the management of refractory hepatic encephalopathy in decompensated cirrhosis will be highlighted. In addition, the potential application of albumin dialysis in cholestatic drug induced liver injury will be reviewed. This section will conclude with a comment on potential future hepatic applications of albumin dialysis. (b) *High dose Continuous Renal Replacement Therapy (CRRT)* High dose CRRT has gained increasing importance in the management of hyperammonemia and associated intracranial hypertension in acute liver failure (ALF). The lecture will highlight this important role of high dose CRRT in the management of ALF, and review specific therapeutic strategies related to the timing and goals of CRRT in severe ALF. (c) *High Volume Plasma Exchange* In addition to high dose CRRT, high volume plasma exchange is gaining interest in the management of ALF. Growing evidence suggests that both high volume and regular volume plasma exchange can mitigate the cytokine surge associated with ALF, thereby providing a mechanistic rationale to explain the hepatic and extrahepatic benefits of plasma exchange in ALF. Evidence based strategies will be reviewed that highlight the efficacy of plasma exchange in the treatment of ALF. In addition, the *Co-administration of high dose CRRT and Plasma Exchange* will be discussed utilizing published data. This approach will highlight further the specific therapeutic benefits of each modality in ALF, and illustrate the synergistic benefits of combining these therapies in the stabilization of severe ALF as a bridge to spontaneous recovery or liver transplantation.