Acute Liver Failure

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Acute liver failure (ALF) is a life threatening condition defined by the evidence of hepatic injury, jaundice, coagulopathy, and encephalopathy in a patient without preexisting cirrhosis and with an illness duration of <26 weeks. The etiologies of ALF are heterogeneous with the most common viral hepatitis in the East. Whereas, the drug-induced, particularly acetaminophen, ALF is most commonly found in the West. Over the past decades, the outcomes of ALF have been improving with early recognition and prompt initiation of etiology-specific therapy (especially N-acetylcysteine), complex intensive care protocols, and urgent liver transplantation (LT).

The most commonly used prognostic scoring systems include King’s College Criteria (more specific) and MELD (more sensitive). Cerebral edema and intracranial hypertension are reasons for high morbidity and mortality in the early phase. Hypertonic saline is suggested for patients with high-risk for developing intracranial hypertension (ICH). When ICH develops, mannitol is recommended as first-line therapy. Bacterial and fungal infections are very common necessitating strict preventive measures, careful surveillance, and prompt aggressive antimicrobial therapy. Acute kidney injury develops in 50-70% of patients; mostly reversible in survivors. Temporary dialysis is required in about 30% of cases.

Overall 1-year survival after LT has been reported to be lower in patients with ALF as compared to those with cirrhosis. However, following the first year, this trend has been to be reversed. ALF patients have a better long-term survival. Extracorporeal liver support system, such as albumin dialysis and plasmapheresis, may serve as a bridge to LT and may increase LT-free survival in select cases.

Keywords: Acute liver failure, Transplantation, Brain edema