Acute liver failure: prognostic markers.

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Abstract:

Acute liver failure (ALF) is defined as liver failure occurring within one month of the occurrence of jaundice. The disease has a grim prognosis, with a mortality of 65% to 85%. The management of ALF has till recently been conservative, and newer therapeutic modalities like bioartificial liver, hepatocyte transplant, and extracorporeal liver assist devices have not yet been proven to be successful. Liver transplant has changed the gloomy outlook of the disease, and post-transplant survival rates of 60%-70% have been reported from most centers. However liver transplant is expensive, necessitates life-long immunosupression, and is limited by a global shortage of available organs. It is thus necessary to select patients who are at greatest risk of death for liver transplantation. Prognostic criteria are based primarily either on clinical and laboratory (coagulation tests, serum bilirubin) parameters, or on other parameters like liver volume. Prognostic criteria have been developed both from the East and the West; these are essentially similar except that the Western criteria take into account etiology (drug overdose being the main cause of ALF there) as well as jaundice-encephalopathy interval as factors for prognostication. The King's College criteria were one of the first prognostic systems; it has two parts for both paracetamol as well as non paracetamol ALF. The criteria from our institute found prothrombin time >25 s, serum bilirubin >15 mg/dL, age >40 years, and cerebral edema to be bad prognostic markers. Criteria from the PGIMER, Chandigarh found age >50 years, raised intracranial pressure, prothrombin time >100 s, and onset of HE more than seven days after the jaundice as poor prognostic markers. All these clinical criteria have similar sensitivity and specificity.