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A CONCISE CLINICAL REVIEW OF TRANSPLANTATION AND LIVER FAILURE

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ABSTRACT

Hepatic and/or extrahepatic organ failure are symptoms of acute or chronic liver failure (ACLF), a dangerous side effect of liver cirrhosis that frequently requires admission to an intensive care unit (ICU). This illness usually requires organ support and has a high death rate. These patients may not benefit from ICU care. The Model for End-stage Liver Disease (MELD) score, the MELD score modified to consider serum sodium level (MELD-Na), the chronic liver failure organ failure (CLIF-OF) score, the CLIF Consortium acute-on-chronic liver failure (CLIF-C ACLF) score, and the Child-Turcotte-Pugh classification are some of the scores used to evaluate prognosis in these patients.

KEYWORDS: MELD, CLIF-OF, complications, liver transplantation.

CAUSES

Toxins and drugs, Amanita phalloides and acetaminophen. Alternative therapies and complementary ones, Nitrofurantoin, Phenytoin, inhibitors of immune checkpoints, yellow phosphorus, viral cause, viruses that cause liver infection, Non-hepatotropic viruses, hepatitis A, hepatitis E, and hepatitis B (with or without hepatitis D), The Epstein-Barr virus Varicella zoster virus, cytomegalovirus, and herpes simplex virus Adeno virus, COVID-19 virus, dengue virus, immunologic (such as autoimmune hepatitis), Wilson illness is a classic instance of a metabolic disease. Problems associated with pregnancy, such as HELLP (haemolysis , high liver enzymes, low platelets) syndrome and acute fatty liver of pregnancy,

vascular and ischemic disorders, Hepatitis ischemia, Budd-Chiari acute syndrome, syndrome of sinusoidal obstruction, various circumstances, malignant infiltration of the liver, such as lymphoma, small cell lung cancer, and breast cancer metastases, Reye syndrome nonfunction of the first graft following liver transplantation Hemophagocytic lymph histiocytosis, Resection of the liver.

COMPLICATIONS:

Invasive mechanical ventilation was used for hepatic encephalopathy, pneumonia, septic shock, lung oedema, hydrothorax, CO2narcosis, and hypovolemic shock. Non-invasive positive pulmonary ventilation (NPPV) was used during ICU stays, followed by invasive mechanical ventilation for respiratory failure; NPPV successfully maintained the patient till liver transplantation.

1. Malnutrition
2. Infections and Immunity:
3. Neurological:
4. Pulmonary
5. Porto pulmonary Hypertension
6. Hepatic Hydrothorax
7. Hepatorenal Syndrome
8. Cirrhotic Cardiomyopathy
9. Bones: Osteoporosis typically affects 20–100% of those with chronic liver disease.

MANAGEMENT:

To forecast the prognosis of chronic liver failure, three traditional scoring systems have been developed: the Child-Pugh-Turcotte classification, the Model for End-stage Liver Disease (MELD) score, and the MELD score, which was modified to take serum sodium level into account. The prognosis of ACLF is also frequently ascertained using these grading systems. However, these scores' incapacity to account for all potential extrahepatic organ failures—a crucial component of the illness spectrum and a major factor in prognosis—limits their accuracy in predicting the prognosis of ACLF. Lately, innovative methods of scoring, for example, the CLIF Consortium acute-on-chronic liver failure (CLIF-C ACLF) score, the chronic liver failure organ failure (CLIF-OF) score, and the CLIF Sequential Organ Failure Assessment (CLIF-SOFA) score, have been created and validated to predict short-term mortality in patients with ACLF. Among these, the CLIF-C ACLF score has demonstrated

superior mortality prediction accuracy. Since ACLF is a dynamic process, serial evaluation of the score improves mortality prediction and, as a result, can aid in determining whether organ support and ICU care are necessary or not.

AWARENESS:

Due to the organ shortage, the transplantation community has been exploring and implementing techniques to expand the donor pool, including the use of extended-criteria donors. ECDs are donor livers that do not satisfy traditional requirements due to reasons such as donor age, extended cold ischemia time, metabolic abnormalities, or a history of disease that may impair liver function.

CONCLUSION:

Despite the detrimental influence of donor and recipient age on LT outcomes, the stated survival rates are deemed clinically meaningful in patients with life-threatening, irreversible liver failure.

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