

Baseline Characteristics of 29 Patients with ACLF $\geq$ 2 : Interim Analysis of the BILIVER Study

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Introduction

Several extracorporeal liver support systems have been developed and tested to manage ACLF. CytoSorb has recently been introduced. The role of these extracorporeal therapies in the management of ACLF remains to be fully elucidated.

Methods

This is an interim analysis of baseline characteristics from 29 patients enrolled in BILIVER study. All patients met diagnostic criteria for ACLF $\geq$ 2 and were admitted to the ICU for various clinical indications. Demographic, clinical, and laboratory parameters were collected at the time of enrollment.

Results

We analyzed a cohort of 29 patients diagnosed with Acute-on-Chronic Liver Failure (ACLF $\geq$ 2), associated with various underlying liver disease: 48% of cases were virus-related, 21% were alcohol-related, and 31% were due to other causes such as drug-induced liver injury (e.g., NSAID overuse), or triggers as hepatotoxic agents and gastrointestinal hemorrhage. The median weight was 80 kg (IQR 60–91 kg) and the median age was 55 years (IQR 49–65 years). At ICU admission, patients had a median SOFA score of 13.5 (IQR 10–16), a median CLIF-C ACLF score of 3 (IQR 2–4), and a median MELD score of 39 (IQR 33–49). All patients were admitted to the ICU for ACLF $\geq$ 2, but the immediate cause for admission varied: 14% due to acute kidney injury, 28% due to hepatic failure, 14% due to a combination of both, and 41% for other reasons—of whom 67% were admitted with multiorgan failure (MOF) or septic shock (see figure 1). Multiple patients had relevant comorbidities, most frequently arterial hypertension, type 2 diabetes mellitus and obesity.

Conclusion

The underlying hypothesis of this study is to assess whether modulation of bilirubin levels and other toxic molecules and inflammatory mediators, achieved through the use of extracorporeal blood purification systems, may have a therapeutic impact in patients with ACLF $\geq$ 2.

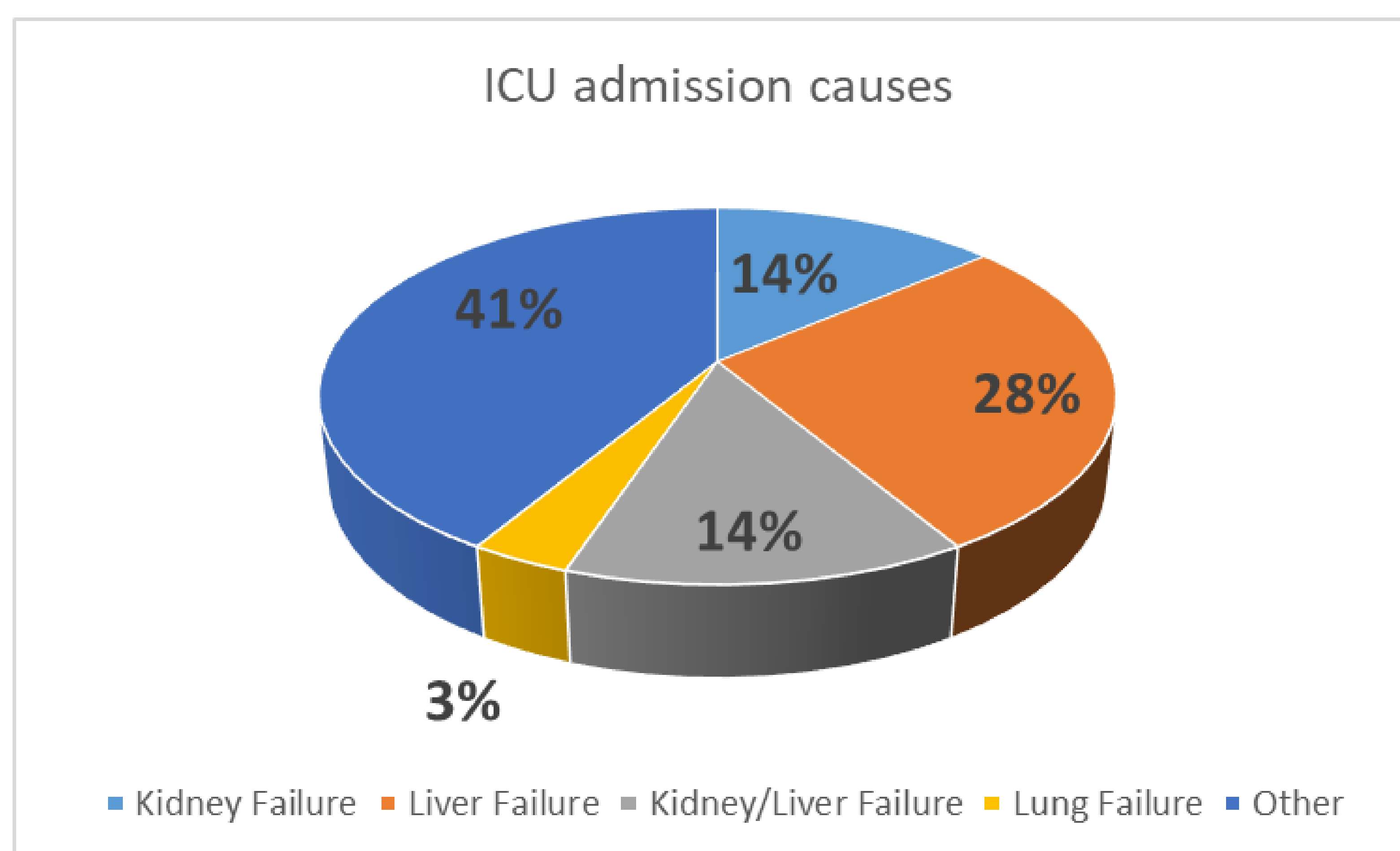


Figure 1: ICU admission causes in the first 29 ACLF $\geq$ 2 patients enrolled in BILIVER study