

Observational study about hepatic toxins kinetic and evaluation of organ damage in acute on chronic liver failure (ACLF) patients. The BILIVER study: preliminary results

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Introduction

Acute on Chronic Liver Failure (ACLF) is a critical and complex condition that occurs in patients with pre-existing chronic liver disease. The European Association for the Study of the Liver (EASL) definition of ACLF describes it as an acute deterioration of liver function, often triggered by one or more acute events. This deterioration not only affects liver function but also leads to multi-organ failure, affecting extrahepatic organs and contributing to a significantly high 28-day mortality rate (>15%).

Methods

Here we present the preliminary results of an OBSERVATIONAL STUDY ABOUT HEPATIC TOXINIS KINETIC AND EVALUATION OF ORGAN DAMAGE IN ACUTE ON CHRONIC LIVER FAILURE (ACLF) PATIENTS (BILIVER study). This is a prospective, observational, non-interventional, multicenter study that aims to evaluate the outcomes of adsorption treatment in patients with Acute on Chronic Liver Failure (ACLF). The primary treatment being evaluated in the study is hemoadsorption therapy using Cytosorb, designed to remove toxins which are central to the pathogenesis of ACLF and multi-organ failure.

Results

Primary objective of BILIVER study is to evaluate how the levels of key toxins involved in liver failure—namely bilirubin, bile acids, and ammonium—change over time in patients with ACLF. In the first analysis of 29 patients, the study found that Cytosorb therapy led to a very strong trend of reduction in bilirubin levels (see fig. 1). This is an encouraging result, as bilirubin reduction suggests that hemoadsorption with Cytosorb may help to mitigate one of the key signs of liver failure, specifically the accumulation of bilirubin.

Conclusion

This study is the first to demonstrate that CytoSorb sorbent, an adsorptive blood purification system, can lead to significant reductions in bilirubin levels in patients with ACLF. The implications of this are potentially far-reaching, as bilirubin reduction has been linked to clinical improvements in several critical areas.

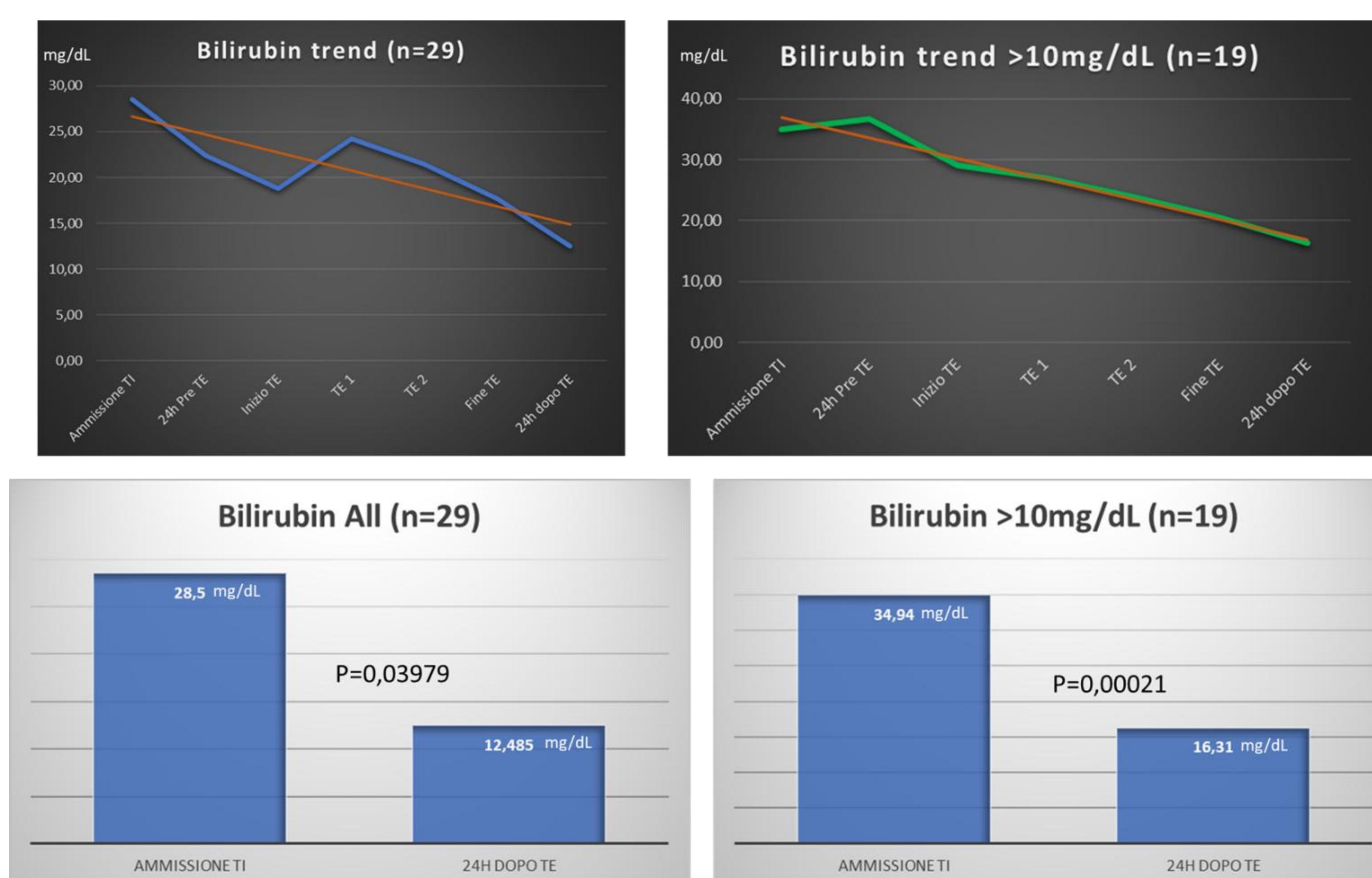


Figure 1