ICU
MANAGEMENT & PRACTICE

FRISC Study: Fluid and Resuscitation Protocols in Sepsis-Induced Hypotension in Cirrhosis

One of the most common causes of hospitalisation and mortality in patients with cirrhosis is sepsis and septic shock. However, despite the routine presence of this condition, there is very limited data on the choice of fluid and resuscitation protocols in sepsis-induced hypotension in cirrhosis.

The **F**luid **R**esuscitation in **S**epsis **I**nduced **H**ypotension among patients with **C**irrhosis (FRISC) study was conducted with 308 patients with cirrhosis and sepsis-induced hypotension. Study participants were randomised to receive either 5% albumin or normal saline. The primary endpoint of the study was a reversal of hypotension (defined as mean arterial pressure of ≥ 65 mmHg) at three hours. Secondary endpoints of the study included effects on patients' heart rate, arterial lactate and urine output.

Of the 308 patients, 154 received 5% albumin, and 0.9% received saline. Participants had comparable baseline parameters and liver disease severity.

The findings of the study showed that at the end of one hour, reversal of hypotension was higher in patients who received 5% albumin compared to those who received saline. The same was true at the end of three hours. The study researchers also observed that sustained reduction in heart rate and hyperlactataemia was better in patients in the albumin group compared to patients in the saline group. Also, both female gender and SOFA ≥ 11 were predictors of non-response to fluid.

These findings show that 5% human albumin is beneficial and safe in reversing sepsis-induced hypotension compared to normal saline in patients with cirrhosis. Albumin improves assessable parameters of systemic haemodynamics, tissue perfusion and short-term survival of patients with cirrhosis and sepsis-induced hypotension.

Source: Hepatology International

Image Credit: iStock

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