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LETTER TO EDITOR

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Prevention of Hepatorenal Syndrome, as a Complication of Liver Cirrhosis

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Dear Editor,

Hepatorenal syndrome (HRS) is defined as the appearance of a renal injury in patients with chronic liver disease. It is of a functional origin and caused by systemic circulatory dysfunction, which leads to renal vasoconstriction secondary to the effect of increased vasoactive substances intended to compensate for initial splanchnic vasodilation [1]. HRS always develops in the context of circulatory dysfunction, mainly in the splanchnic arterial territory, and is generally associated with ascites and hyponatremia due to the activation of neurohormonal systems [2].

The diagnosis of this pathology is clinical and its definition and classification have been updated according to the criteria for acute kidney injury (AKI) [3]. The HRS diagnostic criteria proposed by ICA-AKI are:

(1) Previous diagnosis of chronic liver disease and ascites; (2) AKI diagnosis; (3) No response after 2 consecutive days of diuretic withdrawal and plasma volume expansion with albumin (1 g/kg body weight); (4) Absence of shock; (5) Current or recent use of nephrotoxic drugs (nonsteroidal anti-inflammatory drugs, aminoglycosides, iodinated contrast media, etc.); and (6) No macroscopic evidence of structural kidney injury, defined as no proteinuria (>500 mg/day), no microhaematuria (>50 red blood cells per high-power field), and normal renal ultrasound findings [2-3].

In terms of treatment, the use of albumin is indicated for the prevention of circulatory dysfunction that occurs in the acute context of the disease based on its beneficial effect as a plasma expander; however, more recent studies also indicate that albumin decreases the systemic inflammatory response and reduces proinflammatory substances [4]. In addition, it can improve autoregulation of renal perfusion, which can lead to a reduction in oxidative stress and endothelial activation [5].

Different methods of prevention and reduction of mortality have been studied, such as the placement of a transjugular intrahepatic portosystemic shunt (TIPS) [4]. This technique has been used successfully in individuals with recurrent ascites with excellent results in terms of morbidity and mortality [5]. However, further trials are needed to consolidate its efficacy in the treatment of hepatorenal dysfunction and its benefit-risk assessment [6-8].

Conflict of Interest

We declare that we have no conflict of interest related to the content of this article.

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