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Authors:
Marta Tejedor, Agustín Delgado, Rosa Melero, Víctor Fernández-Alonso, Magdalena Salcedo, Patrocinio Rodríguez-Benítez

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Authors:

Marta Tejedor. Hepatologist. Department of Gastroenterology and Hepatology. Hospital Universitario Infanta Elena (Valdemoro), Spain.

Agustín Delgado. Medical student. Medicine School. Universidad Complutense de Madrid, Spain.

Rosa Melero. Nephrologist. Department of Nephrology. Hospital General Universitario Gregorio Marañón (Madrid), Spain.

Víctor Fernández-Alonso. Specialist Nurse in Hepatology. Department of Gastroenterology and Hepatology, Liver Transplant Unit. Hospital General Universitario Gregorio Marañón (Madrid), Spain.

Magdalena Salcedo. Hepatologist. Department of Gastroenterology and Hepatology, Liver Transplant Unit. Hospital General Universitario Gregorio Marañón (Madrid), Spain.

Patrocinio Rodríguez-Benítez. Nephrologist. Department of Nephrology. Hospital General Universitario Gregorio Marañón (Madrid), Spain.

Corresponding author:

Marta Tejedor

marta.tejedor@quironsalud.es

Department of Gastroenterology and Hepatology. Hospital Universitario Infanta Elena.

Avenida Reyes Católicos, 21. 28340. Valdemoro (Madrid). Spain.

+34 605509361

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Dear Editor,

Tolvaptan (TVP) is a selective antagonist of vasopressin receptors, approved for the treatment of hyponatremia in SIADH, congestive heart failure (CHF) and cirrhosis (1-2).

We retrospectively reviewed all cases where TVP was used in a tertiary hospital (January 2012-January 2017). Our aim was to study the use of TVP in real life practice in patients with portal hypertension (PHT) (past history of non-malignant ascites or variceal bleed).

81 patients received TVP, but only 19 had PHT. The percentage of patients with CHF was higher among patients with PHT (52.6 vs 25.8%, p=0.028). There were no differences in natremia at the start of treatment (126±1.32 vs 128±0.64mEq/l). There was a delay in the correction of hyponatremia in the PHT subgroup over the first month, being the final natremia 135±1.55 vs 139±0.75mEq/l (p=0.021). When analysing the PHT subgroup, 8 had confirmed cirrhosis and 11 severe CHF. The cause of cirrhosis was hepatitis C (n=3), alcohol (n=4) and unknown (n=1). 4 had hepatocellular carcinoma. Mean MELD score at the time of receiving tolvaptan was 12.4±2.32. Only one patient received a liver transplant 4 months after treatment with TVP. Cirrhotic patients had significant comorbidities (12.5% CHF; 12.5% microcytic lung cancer; 75% squamous cell carcinoma; 25% SIADH) and polypharmacy (12.5% antidepressants; 37.5% diuretics; 12.5% antiepileptics; 37.5% benzodiazepines; 12.5% cytostatics; 12.5% antipsychotics). Cirrhotic patients had fewer episodes of hyponatremia (8.38±1.13 vs 10.64±2.76), although this difference was not statistically significant. There was a trend for TVP treatments to be longer in cirrhotic patients (23.25±7.43 vs7.27±2.64 days, p=0.074). The delay in hyponatremia correction observed in patients with PHT was attributable to patients with CHF, in whom the mean increase in serum sodium concentration over the first month was 1.43±1.93 vs 7.16±1.02mEq/l in cirrhotic patients (p=0.025). Median survival time was 105 weeks (CI95% 0-239) in CHF vs 5.14 weeks (CI95% 3.47-6.81) in cirrhotic patients, but did not reach statistical significance.

Despite TVP is approved for its use in hyponatremia associated to advanced cirrhosis as a bridge to liver transplant, in our centre it is reserved to patients with significant comorbidities that can contribute to the development of hyponatremia and worsen prognosis. Presence of ascites in CHF as a surrogate marker for PHT complicates management, delaying correction of hyponatremia.

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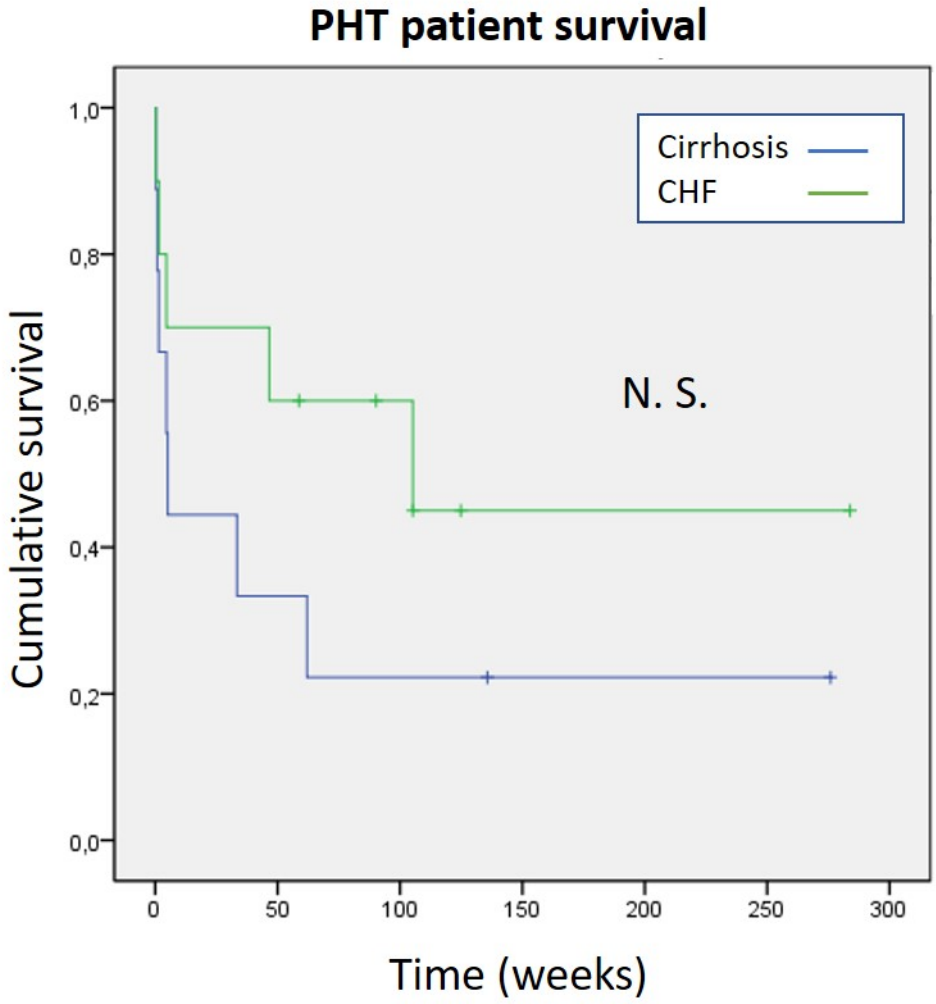

Figure 1. Survival of patients with portal hypertension, attending to the underlying aethiology