mentioned in the study, but they were kept in the department for further observation and evaluation. Unfortunately, the objective parameters before discharge such as Post-Anesthetic Discharge Scoring System or Aldrete scoring system were not used. The long term follow up and side effects related to sedation were not done in our study.

Regarding the hypoxemia events, all the subjects received supplementary oxygen by nasal prongs. The hypoxemia events, which were slight and transient, were noticed only in the cirrhotic group. The statement that this group might be more prone to develop desaturation could be true, albeit, with no statistical significance. The American Society of Anesthesiologists Physical Status (ASA) score was not calculated, although, this parameter may influence the recovery time [2].

In conclusion, we agree that it is better and safer to apply a multiple psychometric tests before discharging, but this can offset the advantage of the reduced recovery time in patients sedated with propofol. Longer follow up period can easily be taken even by a phone call 1–2 days after the procedure. According to this approach, MHE can be diagnosed and treated rapidly. Finally, a discharge from the hospital at 2 h post endoscopy seems to be very safe [3].

Conflict of interest

The authors declared that they do not have anything to disclose regarding funding or conflict of interest with respect to this manuscript.

References

[1] Amodio P, Del Piccolo F, Marchetti P, Angeli P, Iemmolo R, Caregaro L, et al. Clinical features and survival of cirrhotic patients with sub clinical cognitive alterations detected by the number connection test and computerized psychometric tests. Hepatology 1999;29:1662–1667.
[2] Ziser A, Plevak DJ, Wiesner RH, Rakela J, Offord KP, Brown DL. Morbidity and mortality in cirrhotic patients undergoing anesthesia and surgery. Anesthesiology 1999;90:42–53.
[3] Bmaji N, Cohen LB. Endoscopic sedation of patients with chronic liver disease. Clin Liver Disease 2010;14:185–194.

Assy Nimer
Liver Unit, Ziv Medical Center, P.O. Box 1008, Safed 13100, Israel
Tel.: +972 4 682 8441/5; fax +972 4 682 8442.
E-mail address: Assy.n@ziv.health.gov.il

I. Khamaysi
Gastroenterology, Rambam Medical Center, Haifa, Israel

Acute autochthonous hepatitis E in western patients with underlying chronic liver disease: A role for ribavirin?

To the Editor:

We read with interest the recent editorial in the Journal of Hepatology entitled "Hepatitis E: Water, water everywhere – Now a Global Disease" [1]. The authors state that in industrialized nations, acute liver failure and acute-on-chronic liver failure due to autochthonous acute hepatitis E genotype 3 (HEV3) infection have not yet been documented. This statement is inaccurate. A series of seven patients with fulminant liver failure from acute autochthonous HEV3 infection have been reported from southwest France [2]. Six of these patients had chronic liver disease and five were active drinkers. Five of these patients died. In addition, acute HEV3 infection was reported as a cause of decompensation in three patients with chronic liver disease in the UK [3]. Two of these patients died from sub-acute liver failure.

In the past three years (January 2008–December 2010) 35 more cases of acute hepatitis E in immunocompetent patients were diagnosed in the Toulouse University Hospital. Of these, nine patients (26%) had underlying chronic liver disease, of which seven were alcoholic. There were seven males and the median age was 47 years (36–79). All cases were autochthonous. Four patients (44%) had ascites and two had encephalopathy. Median serum bilirubin was 127 μmol/L (29.6–704.4). The strains were sequenced in four patients. They were all genotype 3; subtype 3f in three patients, subtype 3c in one. Three patients died (33%).

The two most recent patients were treated with ribavirin monotherapy. A 79 year old patient with chronic liver disease was admitted for acute hepatitis and acute kidney failure requiring renal replacement therapy. HEV RNA was found to be positive both in the serum and the stools and all other causes of hepatitis were ruled out, including acute alcoholic hepatitis. Because of the severe presentation, the advanced age of the patient, and since we had shown earlier this year that ribavirin is effective and well tolerated in the treatment of chronic hepatitis E in kidney-transplant patients [4], he was given ribavirin monotherapy in order to rapidly contain viral replication. Ribavirin was started off at a dose of 200 mg every other day because of the acute kidney failure. The treatment was scheduled for a 3 month period. Serum HEV RNA concentration decreased from 6.36 log copies/ml at the initiation of the therapy to 4.6 log copies/ml at day 10, 2.9 log copies/ml at day 17, and was negative at one month. The patient completely recovered and dialysis was stopped at month two.

The second patient was treated for 10 days at a dose of 1000 mg per day in two divided doses. Viral load was 4.07 log-copies/ml before treatment, 3.08 after 3 days, 2.54 after 6 days and undetectable one month later. Hemoglobin levels dropped from 12.6 g/dl before treatment to 11.6 g/dl after 6 days of treatment. There were no other ribavirin induced side effects. There was no viral relapse in these two patients.

These data show that the prognosis of acute autochthonous hepatitis E can be poor in industrialized nations, particularly in patients with chronic liver disease (acute on chronic liver failure), and is similar to that reported for HEV genotype 1 infection in patients with chronic liver disease in the Indian sub-continent [5]. An Anglo-French multicentre study is ongoing to assess its frequency and its induced-mortality in a larger number of patients. Short term ribavirin treatment may be useful in these patients. However, this hypothesis needs to be further investigated.

Conflict of interest

The authors declared that they do not have anything to disclose regarding funding or conflict of interest with respect to this manuscript.

References

[1] Acharya SK, Panda SK. Hepatitis E: water, water everywhere–now a global disease. J Hepatol 2011;54:9–11.
[2] Péron JM, Bureau C, Poirson H, Mansuy JM, Alric L, Selves J, et al. Fulminant liver failure from acute autochthonous hepatitis E in France: description of seven patients with acute hepatitis E and encephalopathy. J Viral Hepat 2007;14:298–303.
[3] Dalton HR, Hazeldine S, Banks M, Ijaz S, Bendall R. Locally acquired hepatitis E in chronic liver disease. Lancet 2007;369:1260.
[4] Kamar N, Rostaing L, Abravanel F, Garrouste C, Lhomme S, Esposito L, et al. Ribavirin therapy inhibits viral replication in patients with chronic hepatitis E virus infection. Gastroenterology 2010;139:1612–1618.
[5] Kumar AS, Kumar SP, Singh R, Kumar MS, Madan K, Kumar JJ, et al. Hepatitis E virus (HEV) infection in patients with cirrhosis is associated with rapid decompensation and death. J Hepatol 2007;46:387–394.

J.M. Péron*
Department of Hepatology, CHU Purpan, France
INSERM U858, CHU Rangueil, Toulouse, France
E-mail address: peron.jm@chu-toulouse.fr

H. Dalton
Cornwall Gastrointestinal Unit, Royal Cornwall Hospital Trust, Truro, UK
E-mail address: harry.dalton@rcht.cornwall.nhs.uk

J. Izopet
Department of Virology, CHU Purpan, France
INSERM U563, CHU Purpan, Toulouse, France
E-mail address: izopet.j@chu-toulouse.fr

N. Kamar
Department of Nephrology, Dialysis, and Organ Transplantation, CHU Rangueil, France
INSERM U563, IFR-BMT, CHU Purpan, Toulouse, France
E-mail address: kamar.n@chu-toulouse.fr

Reply to the Letter to the Editor 'Acute autochthonous hepatitis E in western patients with underlying chronic liver disease: A role for ribavirin?'

This is a reply to the Letter to the Editor by Peron et al.

We deeply appreciate the information provided by Peron et al. [1] about two short reports emanating from France [2] and UK [3] indicating that Genotype 3 HEV have been implicated in the cause of Acute on Chronic Liver Failure (ACLF) in 9 out of 10 patients, most of whom (n = 7) had underlying alcoholic cirrhosis. Indeed, it confirmed our suggestion that, such events might be occurring in industrialized nations and HEV may be associated with causing ACLF even in non-endemic developed nation [4]. In these geographical areas, autochthonous Genotype 3 HEV infections in human are implicated as a zoonotic disease and pigs have been identified as the reservoir of Genotype 3 HEV. Interestingly, a national survey of acute hepatitis E in France, which included 19 centres reported that 47 among 53 autochthonous HEV (majority Genotype 3) infection documented during the study period might have been due to contaminated water in many of them [5]. Further, Peron et al in their letter to editor [1] stated that 26% (9 out of 35) of acute hepatitis E documented at their centre had underlying chronic liver disease, most of whom were alcoholic (7 out of 9) [unpublished observation]. This observation may indicate that, patients with underlying chronic liver disease may be more prone to contract acute HEV infection which we have documented and reported [6]. As mentioned earlier, the source of HEV infection may be from water and not necessarily due to only zoonotic transmission, as documented in France [5]. Therefore, Genotype 3 may also be transmitted through contaminated water and may cause severe liver disease, particularly in those with underlying alcoholic liver disease; it thus needs to be confirmed by prospective evaluation whether contaminated water is the source of such infection causing ACLF.

However, after diagnostic assays for HEV became available, prospective studies including large number of patients with acute liver failure (ALF) from developed nation [7,8] did not report HEV as an etiological agent. Furthermore, reviews on HEV in high income countries [9] and case series of acute HEV infection from France [10] and UK [11] also did not identify it as an etiological agent of ALF and ACLF. For this reason, we stated that HEV Genotype 3 and 4 (documented as the cause of autochthonous HEV infection) probably cause more benign disease than the Genotype 1 and 2 HEV infections [4]. The information provided by Peron et al. [1] may therefore indicate that HEV genotype 3 is associated with the causation of liver failure (i.e. ACLF) in individuals with pre-existing liver disease (particularly alcoholic liver disease) and ALF. Although such infection may be infrequent, prospective studies in ALF, particularly in France and UK, are needed to establish HEV genotype 3 as an etiological agent of ALF in these geographical areas.

We also agree with the authors of the letter to editor that the initial promise of Ribavirin as an antiviral agent against HEV infection needs prospective evaluation in a well designed study with a large number of patients with active viremia.

Conflict of interest

The author declared that he does not have anything to disclose regarding funding or conflict of interest with respect to this manuscript.

References

[1] Peron JM, Dalton H, Izopet J, Kumar N. Acute autochthonous hepatitis E in Western patients with underlying chronic liver disease: a role for ribavirine? J Hepatol 2011;54:1323–1324.
[2] Péron JM, Bureau C, Poirson H, Mansuy JM, Alric L, Selves J, et al. Fulminant liver failure from acute autochthonous hepatitis E in France. description of