



LETTERS TO THE EDITOR

Desperately seeking hepatitis C virus

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Abstract

Spanish investigators described recently the so-called occult hepatitis C virus (HCV) infection, emphasizing the detection of genomic and antigenomic HCV RNA strands in liver and peripheral blood mononuclear cells. Therefore, the persistence of viral replication in occult HCV infection should be considered as a putative source of infection among family members and patients undergoing invasive procedures, transfusion or transplantation. Additionally, the most worrisome finding is that an occult HCV infection may persist in patients with sustained virological response.

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response (SVR) in approximately 45% of patients with genotype 1 and in 80% of those with genotypes 2 or 3. SVR is associated with HCV eradication and liver damage reduction. Enormous scientific and economic efforts have dramatically changed the medical focus on HCV, and the prior condition of shipwrecked hepatologists has evolved into skilful navigators trained to cure chronic hepatitis C (CHC), adapting treatment to each patient instead of adapting the patient to an established therapy^[1,2].

Spanish investigators described recently the so-called occult hepatitis C virus (HCV) infection^[3] summarizing its successive studies in a comprehensive review^[4] that emphasizes the detection of genomic and antigenomic HCV RNA strands in liver and peripheral blood mononuclear cells (PBMCs). Therefore, the persistence of viral replication in occult HCV infection should be considered as a putative source of infection among family members and patients undergoing invasive procedures, transfusion or transplantation. Additionally, the most worrisome finding is that an occult HVC infection may persist in SVR patients, with HCV RNA presence in liver and PBMCs^[4,5]. The hope of treated patients, who consider themselves having got rid of the virus, and of physicians, struggling for control and cure CHC, is most probably devastated.

These authors also found that HCV RNA is detected in the sera of patients with occult HCV infection after ultracentrifugation^[6]. What is the significance of this new entity? Answers are a challenge for the scientific community in order to dissect the epidemiological aspects and pathological consequences of occult HCV infection, not to mention the design of therapeutic strategies. The social and medical costs can be astronomic, including work incapacity, absenteeism and intangible costs able to ruin the private life of some patients. Concerns and doubtful questions enunciated by frightened persons and medical doctors have been raised after an extensive report on occult hepatitis C was published, alluding the aforementioned study^[6], on a newspaper from Madrid (LA RAZÓN, July 10-2007, page 31). Whether all the information has any alarming relevance remains to be seen.

TO THE EDITOR

Research into hepatitis C virus infection has progressed substantially over the past 15 years. Treatment with peginterferon plus ribavirin yields a sustained virological

REFERENCES

- 1 Hoofnagle JH, Seeff LB. Peginterferon and ribavirin for chronic hepatitis C. *N Engl J Med* 2006; **355**: 2444-2451
- 2 Moreno-Otero R. Therapeutic modalities in hepatitis C: challenges and development. *J Viral Hepat* 2005; **12**: 10-19

- 3 **Castillo I**, Pardo M, Bartolomé J, Ortiz-Movilla N, Rodríguez-Iñigo E, de Lucas S, Salas C, Jiménez-Heffernan JA, Pérez-Mota A, Graus J, López-Alcorocho JM, Carreño V. Occult hepatitis C virus infection in patients in whom the etiology of persistently abnormal results of liver-function tests is unknown. *J Infect Dis* 2004; **189**: 7-14
- 4 **Carreño V**. Occult hepatitis C virus infection: a new form of hepatitis C. *World J Gastroenterol* 2006; **12**: 6922-6925
- 5 **Castillo I**, Rodríguez-Iñigo E, López-Alcorocho JM, Pardo M, Bartolomé J, Carreño V. Hepatitis C virus replicates in the liver of patients who have a sustained response to antiviral treatment. *Clin Infect Dis* 2006; **43**: 1277-1283
- 6 **Bartolomé J**, López-Alcorocho JM, Castillo I, Rodríguez-Iñigo E, Quiroga JA, Palacios R, Carreño V. Ultracentrifugation of serum samples allows detection of hepatitis C virus RNA in patients with occult hepatitis C. *J Virol* 2007; **81**: 7710-7715

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