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Letter to the Editor

Assessment of the treatment of chronic hepatitis C virus infection: a case series from a hospital in the Brazilian Amazon region

Dear Editor,

According to the World Health Organization, more than 170 million people worldwide are infected with HCV, corresponding to 3% of the world population, with an important impact on global public health.[1] More than 20 years have elapsed since the discovery of the putative virus. The efficacy of chronic hepatitis C treatment has improved over the past decade, but treatment with interferon (IFN) is unable to eradicate HCV in chronically infected patients.[2] In treatment-naive patients who are infected with HCV genotype 1 and present a high viral load, a sustained virological response (SVR) rate of 10% is obtained with conventional IFN and about 50% with the combination of pegylated IFN (PEG-IFN) and ribavirin.[3] Promising results have been reported for patients infected with HCV genotype 1 when a protease inhibitor either telaprevir or boceprevir is added to PEG-IFN plus ribavirin, with an increase in SVR rates from 50% (PEG-IFN + ribavirin) to around 70% (PEG-IFN + ribavirin + protease inhibitor). In Brazil some studies evaluating the efficacy of the treatment for chronic hepatitis C have been published, such as the study conducted by Azevedo et al., who first demonstrated a SVR rate of 32.6% in the state of Mato Grosso, lower than rates found in the South and Southeast regions.[4] I would like to share the preliminary results of a larger study of the treatment of the hepatitis C virus infection in which we are investigating the role of interleukin 28B and ancestrality as predictive factors of SVR. The treatment of hepatitis C virus (HCV) infection is provided free-of-charge by the national public health system (SUS) in Belém do Pará, northern Brazil, where conventional interferon or pegylated interferon combined with ribavirin was used in the study period. A total of 251 patients seen between 2002 and 2011 at the liver outpatient service of the of Fundação Santa Casa de Misericórdia do Pará (FSCMPA) Hospital, Belém, Pará, Brazil, were included in the study. Some patients were excluded because of incomplete information in the medical records. Data entry and statistical analysis of research data were carried on in EPI INFO 6.0 and 5.0 BioEstat softwares. Out of the 251 patients, 86 (34%) received conventional IFN and 165 (66%) received PEG-IFN, both combined with ribavirin. Table 1 summarizes the patient variables of the 251 HCV-infected patients treated with conventional IFN or PEG-IFN plus ribavirin. Among patients receiving conventional IFN, 52/86 (60%) had mild fibrosis (F1 and F2), 56/86 (65%) were infected with HCV non-genotype 1, and 41/86 (48%) achieved SVR. Patients infected with genotype 1 achieved 30% SVR compared to 58% of patients with non-genotype 1 ($p = 0.01$). Seventy-nine (48%) of the 165 patients receiving PEG-IFN had fibrosis stage F2. HCV genotype 1 was the most frequent (84.24%) and 88/165 (53%) patients achieved SVR whereas 52% (72/139) of patients infected with non-genotype 1 in this group achieved SVR. The SVR rate according to fibrosis stage, irrespective of HCV genotype, was 53.7% in patients with stage F2 and 8% in patients with stage F4 ($p = 0.0068$). The main objective of hepatitis C treatment is to eradicate the virus and to prevent cirrhosis and its complications, as well as hepatocellular carcinoma. The overall objective is not met in case of failure to eradicate the virus. In the present study, half of the patients chronically infected with HCV who were treated with conventional IFN and ribavirin did not achieve SVR. Analysis according to HCV genotype showed that only 31% of patients with genotype 1 achieved SVR. A study analyzing 87 patients with chronic hepatitis C seen at the Federal University of Paraná, who received conventional IFN plus ribavirin provided by the Ministry of Health, yielded an overall SVR of about 30%. This rate is similar to those reported in the international literature, although recent studies have achieved rates close to 40%.[5] The introduction of protease inhibitors is expected to enhance SVR rates in Belem, Para.

Conflicts of interest

The author declares no conflicts of interest.

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Ivanete do Socorro Abraçado Amaral [a,b,d,*],
Juarez Antonio Simões Quaresma [b,d],
Esther Castello Branco de Mello Miranda [c,d],
Lizomar de Jesus Maués Pereira Móia [c,d],
Manoel do Carmo Pereira Soares [e]

[a] *Universidade do Estado do Pará, Programa de hepatopatias da Fundação Santa Casa de Misericórdia do Pará Belém, Brazil*
[b] *Laboratório de Imunopatologia, Núcleo de Medicina Tropical da Universidade Federal do Pará (UFPA), Brazil*
[c] *Universidade Federal do Pará, Belém, Brazil*
[d] *Centro de Ciências Biológicas e da Saúde, Universidade do Estado do Pará, Belém, Brazil*
[e] *Instituto Evandro Chagas, Secretaria de Vigilância em Saúde, Ministério da Saúde, Brazil*

[*] *Corresponding author at*: Avenida Gentil Bitencourt 1990, AP 1102, Sao Braz, CEP: 66000-000, Brazil.
E-mail addresses: ivanetesaa@hotmail.com.br, ivanetesaa@ufpa.br (I.d.S.A. Amaral).

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