

Letters to the Editor

Hepatitis C genotype 1b and 4 cured after telaprevir-based therapy

Key words: Telaprevir. Mixed genotype. Healing.

Dear Editor,

Although telaprevir was originally approved by the US FDA for the treatment of chronic genotype 1 hepatitis C virus (HCV) infections (1), it may also be useful for the treatment of patients with genotype 4 HCV (2).

We would like to describe the first clinical case of a patient coinfecting with a mixed genotype of HCV (1b and 4) who achieved a sustained viral response (SVR) 24 weeks after completing the treatment with telaprevir-based triple therapy.

A 69-year-old woman diagnosed with HCV infection in 2007, with a mixed genotype, 1b and 4. Her past medical history included hypothyroidism, hypertension, diabetes mellitus and obesity. In 2008, she started treatment with pegylated-interferon 2a and ribavirin, achieving an undetectable viral load from week 12 to week 48; however it was detectable after 4 weeks of completion of treatment.

A liver biopsy in April 2011 showed F4 fibrosis according to the Metavir score. Her main laboratory test prior to HCV triple therapy initiation included a HCV viral load of 888.000 IU/mL (5.95 log), an ALT of 61 UI/L and a CT genotype for the interleukin 28B polymorphism. In December 2011, she was started on second line treatment, based on triple therapy with telaprevir 2250 mg/day (2 pills TID) for the first 12 weeks, and pegylated-interferon 2a 180 mcg/week (in a single subcutaneous injection) and ribavirin 1,000 mg/day (3 pills Q AM and 2 pills Q PM) for a total of 48 weeks. With this treatment her viral load (VL)

was not quantifiable in week 4, being undetectable from week 8 to 24 weeks after the completion of treatment, reaching SVR.

HCV dual genotype infections are not frequent (3), and often could be an artificial effect of using first generation HCV genotyping testing (4). In our report, the use of confirmatory real-time PCR genotype test decreases this possibility. VERSANT HCV Genotype 2.0 (LiPA) test was performed and the result was confirmed by Abbott RealTime HCV Genotype II test.

According to a recent study (2), the addition of telaprevir to conventional pegylated-interferon and ribavirin regimen, showed a synergistic effect on suppression of HCV viral load in patients infected with HCV genotype 4 without cirrhosis. The study shows a significant reduction of VL median obtained from the second week of treatment.

Due to few references in the literature about mixed genotypes, it is unknown if these results can be extrapolated to other cases of hepatitis C genotypes 1 and 4. In this direction and following the results obtained in our case, this therapeutic regimen could be considered for this group of patients.

Diego Pérez-Parente¹, Sandra Suárez-Ordóñez²,
Marta Suárez-Santamaría¹ and Luis E. Morano-Amado³

¹Department of Pharmacy. ²Department of Hematology.
³Unit of Infectious Pathologies. Hospital Meixoeiro. Vigo,
Pontevedra. Spain

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