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HDV-RNA and HBsAg Evolution during peg-IFN Treatment in Three HBV-HDV-HCV-HIV Coinfected Patients

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Author(s)

Anna Rosa Garbuglia, Daniele Lapa, Angela Testa, Maria Rosaria Capobianchi, Ubaldo Visco-Comandini

ABSTRACT

Background: Patients coinfected with HBV, HDV, HCV and HIV are usually excluded from clinical trials. Data on pegylated interferon treatment in this setting are limited, with predictive factors for HDV virologic success being unknown. Objectives: In this study we analyzed the time course of HDV viral load and HBsAg in HBV-HDV-HCV-HIV patients, who underwent pegylated alfa-2a interferon (peg-IFN) therapy for HDV infection between 2005 and 2009, with different virologic outcomes (no response, relapse or sustained response). Methods: Three patients were selected for virologic analysis, since complete clinical and laboratory data and stored residual blood samples, collected before/during/after peg-IFN treatment were available. Plasma samples were retrospectively analyzed for HDV-RNA detection and quantitative HBsAg determination. Results: All patients were HCV-Ab positive, persistently HCV-RNA negative, and received a peg-IFN treatment curse (180 mcg/week) for 12 to 18 months. HIV and HBV viral loads remained undetectable due to underlying Tenofovir/Emtricitabine (TDF/FTC) treatment. Low baseline HDV-RNA and HBsAg levels were both observed in the patient with sustained viral response. A HDV-RNA decline greater than 2log10 at month 6 was observed in two of the three patients, both with compensated liver cirrhosis, achieving a viral clearance at the end of treatment. Conclusions: Although performed in few patients, this study suggests that a decline of HDV-RNA during treatment and low baseline quantitative HBsAg may be associated to HDV virologic response to peg-IFN in HIV-infected subjects, independently of fibrosis stage. If confirmed on larger patient number, these data may help to select those HDV-infected patients with a reliable chance to respond to prolonged peg-IFN treatment and suggest the importance of quantitative HBsAg monitoring in this setting.

KEYWORDS

Delta Hepatitis; HIV Infection; Interferon Treatment; HDV Viral Load; Quantitative HBsAg

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