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LETTER TO THE EDITOR

Successful treatment after short course of telaprevir-based therapy in chronic hepatitis C infected patient

J.C. Dutilh[1]*, J.E. Arends[2]

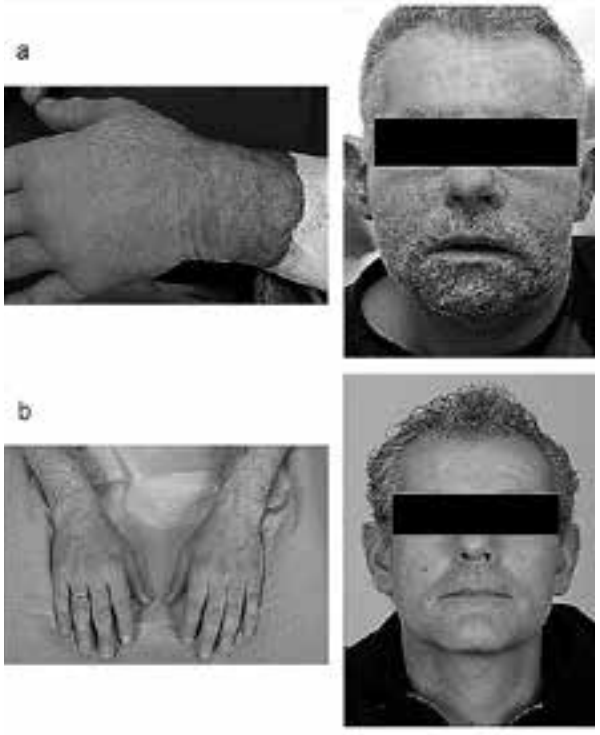
[1]Department of Internal Medicine, Gelre Hospitals, Apeldoorn, the Netherlands, [2]Department of Internal Medicine and Infectious Diseases, University Medical Center Utrecht (UMCU), Utrecht, the Netherlands, *corresponding author: tel.: +31 (0)55-5818181, e-mail: jc.dutilh@gelre.nl

To the editor,

Since 2012, triple therapy with a combination of pegylated interferon-alpha 2a/2b, ribavirin and a novel NS3/4A serine-protease inhibitor (telaprevir or boceprevir) is the standard of care for chronic hepatitis C genotype 1a/b (HCV).[1,2] Together with a substantial increase in sustained viral response (SVR) rates and shortened duration of therapy, additional side effects of the direct acting antiviral agents (DAA) are increasingly being recognised.[3] We describe a patient who stopped telaprevir-based triple therapy after only six weeks due to severe toxic skin reaction caused by the telaprevir, and achieved an SVR despite several unfavourable characteristics.

A 48-year-old man, HCV-infected during a period of intravenous drug use in the 1990s, started triple therapy consisting of peginterferon alpha-2a, ribavirin and telaprevir. HCV was genotype 1a, with a baseline HCV-RNA concentration of 2.0 x 10^6 IU/ml, an ALAT level of 180 U/l and no severe fibrosis or cirrhosis by fibroscan. His IL28B polymorphism was C/T (rs1279860). The first four weeks of triple therapy passed uneventfully while his HCV-RNA viral load dropped to <15 IU/ml (Cobas Taqman V2.0, Roche). Over the next two weeks he gradually developed a toxic skin reaction on the arms, legs, rump and face for which topical corticosteroid ointment and oral antihistamines failed. The rash worsened, the patient's condition deteriorated and he developed a secondary impetigo in the face (*figure 1*). He was admitted to hospital and the triple therapy for HCV was discontinued. The consulted dermatologist performed a skin biopsy showing lymphohistiocytic infiltrates and increased numbers of eosinophilic granulocytes in the dermis confirming the clinical diagnosis of telaprevir-induced toxic skin reaction (grade 3). He recovered completely. He had an undetectable HCV-RNA level 12 and 24 weeks after treatment discontinuation and was therefore successfully treated for HCV.

Figure 1. *Severe toxic skin reaction caused by telaprevir*



A) Grade 3 skin rash (defined as a generalised skin eruption involving >50% of the body surface area plus epidermal detachment) developed after 4-6 weeks of telaprevir-based triple therapy; B) Normalisation of all skin lesions after treatment discontinuation and achievement of SVR

Successful very short courses of therapy have rarely been described,[4] while this is the first patient with telaprevir-

based triple therapy. Of note, there were a number of unfavourable pretreatment characteristics such as HCV genotype 1a infection, C/T IL28B polymorphism and high baseline viral load that would lower his chances of SVR in the first place. On the other hand, the patient exhibited very favourable viral kinetics in the first weeks of therapy, which has been shown to be the most important predictor of treatment success.[5] Furthermore, it could be hypothesised that this patient's severe side effects were indicative of a strong immune response, which could have contributed to a rapid forced viral clearance of HCV.

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