Treatment of hepatitis C virus infection with direct-acting antiviral drugs is safe and effective in patients with hemoglobinopathies

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Abstract

Progression of liver fibrosis in patients with hemoglobinopathies is strongly related to the severity of iron overload and the presence of chronic hepatitis C virus (HCV) infection. Effective iron chelation therapy and HCV infection eradication may prevent liver complications. The European Association for the Study of the Liver guidelines recommend interferon-free regimens for the treatment of HCV infection in patients with hemoglobinopathies. However, data regarding the use of direct-acting antiviral drugs (DAAs) in this patient population are few. This observational study evaluated the safety and efficacy of therapy with DAAs in an Italian cohort of patients with hemoglobinopathies, chronic HCV infection and advanced liver fibrosis. Between March 2015 and December 2016, 139 patients received DAAs and completed 12 weeks of follow-up after the end of treatment for the evaluation of sustained virological response (125VR). The 125VR (93.5%) was comparable with that typically observed in cirrhotic patients without hemoglobinopathies. Three patients died during the period of observation of causes unrelated to DAAs. One patient did not achieve a virological response and five (3.6%) relapsed during 12 weeks of follow-up after the end of therapy. In addition, patients showed significant reductions in serum ferritin at 12 weeks to levels similar to those observed in a control group of 39 patients with thalassemia major without HCV infection, who adhered to chelation therapy and had no overt iron overload. In conclusion, the use of DAAs appears to be safe and effective in patients with hemoglobinopathies and advanced liver disease due to HCV.