

## **Safety and Efficacy of sofosbuvir/ledipasvir combination in treatment of chronic hepatitis C infection in adolescents aged 12-17 years old**

**Background** Chronic hepatitis C virus (CHC) infection represents a crucial health problem, especially among children and adolescents. The ledipasvir (LDV)/sofosbuvir (SOF) regimen has been approved to treat adolescents (aged 12 to 17 years old) infected with hepatitis C virus (HCV) genotypes 1, 4, 5, and 6 and then extended to include children above or equal to 3 years old. The current study aims to evaluate the safety and efficacy of SOF/LDV combination in treating CHC-infected 12- to 17-year-old adolescents.

**Patients and methods** This retrospective cohort study was performed on 147 Egyptian adolescents with CHC. The patients were treated with SOF 400 mg/LDV 90 mg combination once daily for 12 weeks. Possible side effects and laboratory data including HCV ribonucleic acid polymerase chain reaction (RNA PCR), complete blood count (CBC), and liver tests were recorded at baseline and week 12 after the end of treatment (EOT).

**Results** Sustained virological response 12 weeks (SVR12) after end of treatment (EOT) was observed in 146 out of 147 patients (99.3%). The treatment regimen was efficiently tolerated with no reported cases of discontinuation caused by intolerability. Moreover, the side effects were minimal; 71.4% of the patients did not report any side effects related to the treatment. However, the rest mentioned fatigue, headache, or both of them. Fatigue was the main side effect reported in 16.3% of the patients. Furthermore, ALT and AST levels were normalized after treatment. FIB-4 and APRI scores were statistically significantly decreased 2 years post-SVR, in comparison to their levels before treatment, from 0.34 and 0.36 to 0.25 and 0.17, respectively.

**Conclusion** The LDV/SOF regimen is one of the safe regimens used to treat adolescent patients with CHC infection.

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