Metabolic Changes in Egyptian Patients with HCV Related Chronic Liver Disease after Oral Antiviral Therapy

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Abstract

Background: Hepatitis C Virus (HCV) has complex interactions with human lipid metabolism leading to down regulation of cholesterol level. Interferon (IFN) therapy has been shown to decrease cholesterol even further during treatment but increase after successful HCV eradication. With the availability of second-generation direct acting antiviral agents (DAA) the effect of suppressing and eliminating HCV on lipid metabolism warrants re-evaluation.

Aim of the work: Goal of our study is evaluation of the changes in lipid profile after treatment of chronic HCV infection with oral antiviral medications in diabetic patient who attended to Al-Azhar University specialized hospital, in the period from December 2017 to March 2018.

Methods: In this prospective study conducted on 90 HCV patients related chronic liver disease, all patients received Sofosbuvir (SOF) & Daclatasvir (DCV) as a dual therapy for 3 months. They were divided according to the presence or absence of diabetes mellitus (DM) and hyperlipidaemia into three main groups; Group I: included30 diabetic hyperlipidaemic patients with chronic HCV infection, Group II: included 30 non-diabetic hyperlipidaemic patients with chronic HCV infection and Group III: which included 30 non-diabetic non-dyslipidaemia patients with chronic HCV infection. Changes of lipid profile in HCV patients on treatment with DAA were assessed by checking fasting lipid profile at base line, then at the end of treatment (i.e. 12th week of treatment), and finally 3 months after treatment (i.e. 24th week of treatment). Treatment was considered successful when patients became non-viremia as identified by negative HCV RNA serum polymerase chain reaction (PCR) at 12 weeks from the end of the treatment regimens; this is called sustained virological response (SVR).

Results: On treatment there was a statistically significant increase in total cholesterol level (TCHOL) which was maintained after the end of therapy. changes in TCHOL were driven by changes in low-density lipo-protein (LDL) cholesterol, whereas high-density lipo-protein (HDL) cholesterol and very low-density lipo-protein (VLDL) cholesterol showed no significant changes. There were also no significant changes in triglyceride (TG) level on treatment.

Conclusion: Supressing and eliminating HCV with DAAs increased TCHOL but had no effect on TG level.

Keywords:

Introduction

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% increased CHOL *vs.* age	0.4	0.9
% increased CHOL *vs.* BMI	0.2	0.4
% increased CHOL *vs.* baseline CHOL	-0.7	<0.001**

References

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Roudot-Thoraval
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