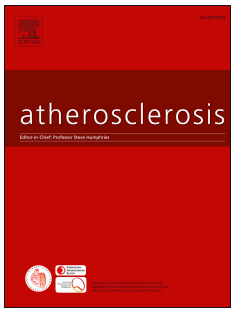

Non-atherosclerotic cardiac manifestations of chronic hepatitis C virus infection in the era of direct-acting antiviral agents

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Non-atherosclerotic cardiac manifestations of chronic hepatitis C virus infection in the era of direct-acting antiviral agents

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To the Editor,

Adinolfi and colleagues found that the treatment of hepatitis C virus (HCV) infection by direct-acting antiviral (DAA) agents decreases the incidence of major cardiovascular events [1]. A possible effect of inflammatory cascades for the development of HCV-related atherosclerotic cardiac diseases has been suggested previously [2], and the role of these inflammatory processes on non-atherosclerotic cardiac diseases is also crucial. An impaired cardiac function is reported in HCV-infected patients. Furthermore, HCV infection is associated with cardiomyopathies and valvular heart diseases affecting the patients' cardiac function [3]. Cardiac arrhythmias such as long QT interval, bradyarrhythmia, tachyarrhythmia, atrial fibrillation, and sick sinus syndrome are also more common among HCV infected patients [4]. Some recent studies mentioned the increased burden of atherosclerotic cardiac diseases [2, 5] and cardiac arrhythmia [4, 5] among chronic HCV infected patients. These studies stated the effect of HCV treatment on decreasing the incidence of atherosclerotic heart diseases [2] and arrhythmia [4, 5], either using old interferon-containing regimens [5] or new direct-acting antiviral (DAA) agents [2, 4]. All these studies evaluated the long-term outcomes of HCV treatment, but the acute cardiac effects of DAAs during and short-term after treatment are less examined. It is said that DAAs can decrease patients' cardiac function. They can adversely affect the global longitudinal strain, diameter, and volume of the left ventricle, and also the diameter of the right ventricle [6, 7]. Moreover, there is some evidence of inducing or worsening arrhythmia caused by DAAs during treatment of HCV infection [4, 6, 8].

We believe that HCV-infected patients with impaired cardiac function, arrhythmia, valvular heart diseases, and cardiomyopathy need close observation during HCV treatment. This can prevent the possible effect of HCV treatment by DAAs on the worsening of the cardiac manifestations. Some of these cardiac adverse effects are subclinical and can remain undiagnosed [6]. On the other hand, evaluating some of these effects needs further specific and costly methods. Hence, more exact evaluations during HCV treatment with DAAs are recommended for patients with a history of cardiac diseases.

Conflict of interest

The authors declared they do not have anything to disclose regarding conflict of interest with respect to this manuscript.

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