

CURING HEPATITIS C MINIMIZES LIVER DISEASE COMPLICATIONS AND DEATH AMONG EGYPTIAN PATIENTS

By

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Short communication

Generally speaking, the hepatitis C virus (HCV) is a small (55-65nm in size), enveloped, positive-sense single-stranded RNA virus of the family Flaviviridae. It is the cause of hepatitis C and some cancers such as the liver cancer (hepatocellular carcinoma, abbreviated HCC) and lymphomas in humans. The hepatitis C virus is a blood-borne virus and the commonest modes of infection are through exposure to small quantities of patient blood, which may happen through the injection drug use, the unsafe injection practices, unsafe health care, and the transfusion of the unscreened blood and blood products (WHO, 2018).

Globally, an estimated 71 million people have chronic hepatitis C infection. A significant number of those who were chronically infected would develop cirrhosis or liver cancer. Approximately 399 000 people die each year from the hepatitis C. complications (WHO, 2017).

Hepatitis C virus (HCV) infection was a major health problem in Egypt. The overall HCV prevalence was estimated to be declining. However, the clinical impact of the chronic HCV infection is more or less still apparent (Gomaa *et al*, 2017).

Walker (2017) in USA stated that HCV vaccine development is unique from many perspectives. The most notably, the goal of vaccination was not to prevent the HCV infection by eliciting sterilizing immunity, but instead to prevent HCV persistence. He concluded that most chronic infections were undiagnosed and transmission increased in the recent years, and that the first vaccine trial to reduce transmission is now underway in humans at risk for HCV infection.

In Egypt, introducing the national plan and program for managing HCV, which has been successful so far in treating a huge number of HCV patients, with the aim of achieving disease control and eventual elimination in Egypt.

The primary goal of HCV therapy was to cure the infection in order to: (i) prevent the complications of HCV-related liver including hepatic fibrosis, cirrhosis, decompensation of cirrhosis, HCC, severe extra-hepatic manifestations and death; (ii) improve the quality of life; (iii) prevent the onward transmission of HCV.

Currently, direct-acting antivirals (DAAs) are considered the ideal choice for the treatment of the chronic HCV patients due to their proven efficacy (SVR > 90%), with the minimal adverse side-effects. Jakobsen *et al*. (2017) in Denmark mentioned that the direct-acting antivirals (DAAs), such as the Sofosbuvir[®], were relatively new and expensive interventions for the patients with chronic hepatitis C. and the preliminary results suggested that the DAAs might eradicate the hepatitis C virus (HCV) from the blood of the patient (sustained virological response).

The patients with the advanced fibrosis (METAVIR score F3) or cirrhosis (F4) still remained at the risk of life-threatening complications. Recent year's data suggested that the risk of HCC and liver-related mortality is significantly reduced, but not eliminated, in patients with cirrhosis who clear the HCV compared to the untreated patients and non-sustained virological responders. In patients with the advanced fibrosis and cirrhosis, surveillance for HCC every 4-6 months must be continued post-treatment of HCV because

SVR will reduce, but not abolish, the risk of HCC.

A major barrier to HCV elimination still results from the fact that the substantial proportion of the patients with chronic HCV are more or less unaware of their risk infection. Thus, the HCV screening is required, to identify the infected individuals and engage them in care and treatment.

Egypt launched a large treatment program aimed at providing treatment coverage for all the Egyptian HCV-infected patients.

The Egyptian National Viral Hepatitis Treatment Programmes was considered one of the most successful and effective public health programmes (El-Akel *et al*, 2017).

Currently, Egypt provides a model for establishing the largest HCV management system aimed at eliminating HCV from the country with the highest worldwide prevalence. Despite this huge efforts and achieved results in combating the HCV epidemic in

Egypt, the development of an enhanced screening program working in parallel to the present treatment options must be followed

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