

## Hepatitis C: is the cure near?

Nasir Khokhar

Hepatitis C (HCV) affects millions in Pakistan. The disease is deadly, remains asymptomatic for number of years and leads to chronic hepatitis resulting in cirrhosis of the liver culminating in decompensation and ultimately can result in hepatocellular carcinoma and death. With more awareness in public, many more cases are being discovered.

With the advent of standard interferon in early 90s and soon later with ribavirin, the treatment became a reality. With introduction of pegylated interferon, in combination of ribavirin, the improvement in response became considerably better. With the advent of direct acting antiviral agents, which included telaprevir and boceprevir and later more recently simeprevir, the response became more improved, especially in genotype-I patients. Luckily, in Pakistan, the genotype-III is the commonly encountered genotype. However, some of the strains of genotype-III are rather resistant to currently available treatment.

With the recent introduction of protease inhibitors and polymerase inhibitors, there is a new page in the management of hepatitis C. Although, sofosbuvir is being considered rather expensive even in US, in third world countries like Pakistan, the cost has been considerably lower. The response with recently approved sofosbuvir along with ribavirin for genotype-I<sup>1,2</sup> and genotype III patients.<sup>3</sup> This has especially given a hope to those who have been unresponsive to interferon or have been intolerant or are ineligible because of cytopenias, in them the response has been very encouraging.<sup>1,2</sup>

More recently, there are number of other protease inhibitors and polymerase inhibitors have been proved in Japan for treatment of HCV. The treatment with these agents has been rather encouraging especially these are interferon free regimens and have considerably higher sustained virological response. The pharmaceutical companies are in a race to develop all oral agents, which can cure the

virus and the chances of near 100% response is becoming a more reality. Several additional drugs are in the final stages of development, may ultimately bring the cost to more affordable level. More recently, a combination of several agents is under trial for just a four-week treatment for hepatitis C with nearly 100% response.<sup>4</sup>

These developments are very encouraging. However, in our society, the cost constraints will be an issue. However, with interferon free regimens and with shorter duration of treatment, there seems to be a very exciting development in the management of HCV. With introductions of multiple oral agents, the management has to be in the expert hands, because unscrupulous use of oral agents with not proper duration and proper background, may result in resistance, failure of treatments and loss of efficacy.<sup>5</sup> Therefore, new developments should be considered with caution and that there should be appropriate use of the oral regimens.

**Correspondence:** Prof Nasir Khokhar, Head, Division of Gastroenterology, Shifa International Hospital, Islamabad, Pakistan. Email: drnkhokhar@yahoo.com

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