

EFFICACY OF DIRECT ACTING ANTIVIRAL (DAA) TREATMENT AGAINST HCV AMONG DIFFERENT POPULATION GROUPS IN THE EASTERN REGION OF INDIA

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Background:

HCV is a positive-sense RNA virus with 8 major genotypes and 86 subtypes. The genomic hypervariability of HCV often helps this virus to bypass the host immune system. Currently, direct-acting antivirals (DAAs) are prescribed to prevent HCV infection. This study depicts the present scenario on the efficacy of DAAs treatment in eastern India.

Methods:

A total of 594 HCV sero-reactive patients were registered in this study. Viral RNA was extracted from serum and partial amplification of the core region (405bp) was done by nested RT-PCR for the detection of HCV RNA. The PCR amplified products were sequenced by Sanger sequencing and the genotype was recognized by NCBI genotyping tool. HCV positive patients were advised for DAAs and the viral RNA status was monitored by qRT-PCR during the course of treatment.

Results:

In our study population, 72.39% were HCV RNA positive, and all of them were advised for DAAs. Of them, 92.56% of patients had completed DAAs treatment. 94.47% of patients had achieved sustainable viral response (SVR) and 5.52% were non-responders to DAAs. The majority of the non-responsive cases were found within patients with decompensated cirrhosis of liver (13.33%) followed by chronic liver disease (5.43%), β -thalassemia (4.67%), and hemodialysis (4.41%) patients. 6.34% GT 3 and 4.20% GT1 infected patients were failed to respond against the treatment. Furthermore, all GT4 infected patients had achieved SVR. 72.72% non-responsive cases were observed against the combination of sofosbuvir and daclatasvir \pm ribavirin treatment. Among the drug non-responders subtype, 3b was the most prevalent (~46%).

Conclusion:

In the era of DAAs for HCV treatment, it was thought that a new generation of NS5 inhibitors would have very high efficacy, but this study shows high nonresponsive cases within HCV genotype 3 which indicates a new combination of therapeutic intervention, especially for HCV GT3.

Disclosure of Interest Statement:

Nothing to disclose.