

Detection and Distribution Pattern of Prevalent Genotypes of Hepatitis C in a Tertiary Care Hospital of Western India

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Abstract : Background: Hepatitis C virus is a major cause of chronic hepatitis, which can further lead to cirrhosis of the liver and hepatocellular carcinoma. Worldwide the burden of Hepatitis C infection has become a serious threat to the human race. Hepatitis C virus (HCV) has population-specific genotypes and provides valuable epidemiological and therapeutic information. Genotyping and assessment of viral load in HCV patients are important for planning the therapeutic strategies. The aim of the study is to study the changing trends of prevalence and genotypic distribution of hepatitis C virus in a tertiary care hospital in Western India. Methods: It is a retrospective study; blood samples were collected and tested for anti HCV antibodies by ELISA in Dept. of Microbiology. In seropositive Hepatitis C patients, quantification of HCV-RNA was done by real-time PCR and in HCV-RNA positive samples, genotyping was conducted. Results: A total of 114 patients who were seropositive for Anti HCV were recruited in the study, out of which 79 (69.29%) were HCV-RNA positive. Out of these positive samples, 54 were further subjected to genotype determination using real-time PCR. Genotype was not detected in 24 samples due to low viral load; 30 samples were positive for genotype. Conclusion: Knowledge of genotype is crucial for the management of HCV infection and prediction of prognosis. Patients infected with HCV genotype 1 and 4 will have to receive Interferon and Ribavirin for 48 weeks. Patients with these genotypes show a poor sustained viral response when tested 24 weeks after completion of therapy. On the contrary, patients infected with HCV genotype 2 and 3 are reported to have a better response to therapy.

Keywords : hepatocellular, genotype, ribavirin, seropositive

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