

# **HEPATITIS C VIRUS GENOTYPING BY REAL-TIME PCR AMONG POSITIVE PATIENTS AND ITS RELATIONSHIP WITH VIRAL LOAD IN BASRAH, SOUTH OF IRAQ**

## **Abstract**

The aim of this study was to investigate the distribution of HCV genotypes diversity circulating in Basrah, south of Iraq. A total of 320 serum sample from hepatitis patients were used in this study. All samples were positive for both HCV antibodies and HCV RNA. Hepatitis C virus genotyping was performed by using HCV Genotype Plus (R1-Gen-6) Real<sup>TM</sup> kit (Sacace Biotechnologies, Italy) which determines the following HCV genotypes: 1a, 1b, 2, 3a, 4, 5a and 6. Out of 320 serum samples, 147 (46%) were determined to be subtype 1b, 123 (38.4%) were genotype 4, 32 (10%) were subtype 1a, 3 (0.9%) were genotype 2, and 15 (4.7%) were untypable by the method used. The average viral load of the patients infected with genotype 1b was significantly higher than average viral load of the patients infected with genotypes 4 and 2 ( $P < 0.01$ ). In conclusion, genotypes 1 and 4 were most frequently found in this geographical region and the severity of liver disease was more in genotype 1 as assessed by higher viral load.