THE OCCURRENCE OF HEPATITIS C VIRUS INFECTION IN APPARENTLY HEALTHY SUBJECTS IN ENUGU METROPOLIS, NIGERIA

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PG/M. 1 1. 6. 0050

SUBMITTED TO THE

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JULY, 2014.
It is widely known that hepatitis C virus (HCV) slowly and progressively damages the liver while the human host may be unaware of the infection. The aim of this study was to investigate the prevalence of HCV in apparently healthy individuals in Enugu metropolis. This is important because it will explain the prevailing liver disease experienced in the society. A total of 214 apparently healthy individuals were recruited from Enugu North, Enugu South and Enugu East for this study. Their demographic characteristics and social life habits were obtained from each of the subjects. Blood samples were collected through venepuncture and serum was extracted from it. The serum was analyzed for anti-HCV antibodies using HCV EIA third generation assay kit. The lipid profile and alanine aminotransaminase levels were also estimated using a commercial prepared kit for each of the parameters. The results were analyzed statistically with significant levels taken at P<0.05. Of the 214 sera samples collected, 12 (5.6%) were positive in Enugu North, 9 (4.2%) were positive in Enugu South and 13 (6.1%) were positive in Enugu East, making a total of 34 (15.9%). There were equal positivity between the male and females 17% (7.9%) each. The seropositivity within the age group of 18 – 25 years old was the highest (10.7%). The least seropositivity was recorded among the age group of 46 – 71 years old 1(0.7%). The ALT values of 3 out of 34 seropositive samples tested were elevated (mean value 18.70 ± 2.9 u/l). From the lipid profile of the positive samples analyzed, 4 of the 34 had elevated Triglyceride (TG) (2.83 ± 0.47 mmol/l). 3 of the 34 had elevated Total Cholesterol (TC) (7.67 ± 1.37 mmol/l). Five of the 34 had elevated High density lipoprotein (HDL) (1.56 ± 0.14 mmol/l). Three of the 34 had their Low density lipoprotein (LDL) elevated (4.77 ± 0.90 mmol/l). Finally, very low density lipoproteins (VLDL) of 2 were elevated with the mean value (1.6 ± 0.01 mmol/l). The age distribution was statistically significant (P=0.006). Among the risk factors analyzed for the transmission of HCV, none was statistically significant indicating that the route of transmission of HCV is obscure or unknown. The problem associated with normal ALT levels in HCV subjects is that the HCV will continue to multiply ALT release from the liver which will finally lead to chronic HCV. The subjects with elevated ALT 3(18.70 ± 2.9u/l) is a practical evidence of liver damage due to HCV infection. The burden of HCV infection is enormous with the prevalence rate of HCV observed in this study. It is necessary to screen a wider population and determine the genotypes prevalent in the society.