Abstract

Background: The measurement of anti-HCV antibodies using immunological methods and the confirmation of viral nuclear acid based on molecular methods is important in diagnosis and follow-up of the HCV infection.
Objectives: In this study, we aimed to analyse HCV core Antigen positivity among anti-HCV antibody positive sera to determine the significance of testing of HCV core Ag for the laboratory diagnosis of HCV infection, by considering the correlation between serum HCV core Ag and HCV RNA levels.
Methods: 115 patients suspected of having hepatitis C and who were positive for anti-HCV antibody were investigated using chemiluminescent and molecular methods. Anti-HCV antibody, HCV core Ag and HCV RNA levels were detected by the Vitros ECiQ immunodiagnostic system, Architect i2000 system and RT-PCR, respectively.
Results: The sensitivity, specificity, positive and negative predictive values and accuracy rate of HCV core Antigen assay were detected as 86.5%(83/96), 100%(19/19), 100%(83/83), 59.4%(19/32), 88.7%(102/115) respectively.
Conclusion: HCV core Ag assay could be used for diagnosis of HCV infection due to its easy to perform, cost-effective, high specificity and positive predictive value. However, it should be kept in mind that it may have lack of sensitivity and negative predictive value.
Key Words: HCV, anti-HCV antibody, HCV core Ag, HCV RNA