

Investigating the Prevalence of HCV from Laboratory Centers in Tehran City - Iran by Electrochemiluminescence (ECL) and PCR Techniques

Authors : Zahra Rakhshan Masoudi, Sona Rostampour Yasouri

Abstract : Considering that the only way to save the lives of patients and healthy people who have suffered sudden accidents is blood transfusion, what is important is the presence of the known HCV virus as the most important cause of the disease after blood transfusion. HCV is one of the major global problems, and its transmission through blood causes life-threatening complications and extensive legal, social and economic consequences. On the one hand, unfortunately, there is still no effective vaccine available to prevent HCV. In Iran, the exact statistics of the prevalence of this disease have not yet been fully announced. The main purpose of this study is to investigate the prevalence rate and rapid diagnosis of HCV among those who refer to laboratory centers in Tehran. From spring to winter of 1401 (2022-2023), 2166 blood samples were collected from laboratory centers in Tehran. Blood samples were evaluated for the presence of HCV by Electrochemiluminescence (ECL) and PCR techniques along with specific HCV primers. In general, 36 samples (1.6%) were tested positive by the mentioned techniques. The results indicated that the ECL technique is a sensitive and specific diagnostic method for detecting HCV in the early stages of the disease and can be very helpful and provide the possibility of starting the treatment steps to prevent the exacerbation of the disease earlier. Also, the results of PCR technique showed that PCR is an accurate, sensitive and fast method for definitive diagnosis of HCV. It seems that the incidence rate of this disease is increasing in Iran, and investigating the spread of the disease throughout Iran for a longer period of time in the continuation of our research can be helpful in the future to take the necessary measures to prevent the transmission of the disease to people and the rapid onset Treatment steps for patients with HCV should be carried out.

Keywords : electrochemiluminescence, HCV, PCR, prevalence

Conference Title : ICH 2024 : International Conference on Hematology

Conference Location : Montreal, Canada

Conference Dates : May 23-24, 2024