

Prevalence of HIV Co-infection with Hepatitis B and C

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Human immunodeficiency virus (HIV) and hepatitis B and C viruses (HBV and HCV) are three most common chronic viral infections documented worldwide [1]. These viruses have similar routes of transmission, namely through blood and blood products, sharing of needles to inject drugs and sexual activity, enabling co-infection with these viruses a common event [2]. In addition, the prevalence rate of co-infection with HIV in HBV and HCV patients have been variable worldwide depending on geographic regions, risk groups, and type of exposure involved, which may be different not only from country to country, but also in different regions of same country [3]. In spite of widespread evidence of HBV/HIV and HCV co-infections and the increasing prevalence of HIV there are few reports about frequency of infection by HIV viruses in HBV and HCV positive patients in Iran. We assess 749 patients who had positive HBs Ag or HCV antibodies attending to gastrointestinal and hepatology research center of Mashhad Imam Reza hospital in northeast Iran, after performing pre-test counseling and informed consent. 643 (85.8%) patients were HBV positive, 99 (13.2%) were HCV positive and 7 (0.9%) patients has co-infection HBV and HCV hepatitis.

HBV and HIV co-infection: 688 patients were tested for HIV infection and in 12 patients due to no sufficient serum, test was not done, of HBV positive patients (604) no HIV positive Ab was detected.

HCV and HIV co-infection: Of HCV positive patients (90) only 1 (0.9%) had HIV antibody positive that was an IV drug abuser (33 years male) and 0.15% of patients with co-infection HBV and HCV virus had HIV positive antibody.

Risk behaviors: Common risk behaviors for HBV transmission were family history (37.2%), history of tattoo/venesection (13.8%), history of surgery (13.5%) and undetermined (24.8%).

Common risk behaviors for HCV transmission were IV drug injection (40.6%), history of blood transfusion (28.3%), history of surgery (13.2%) and undetermined (5%). In 15% of patients there were multiple risk behaviors. Common risk behaviors in HBV/HCV co-infection were IV drug injection [3], history of tattoo/venesection [1], unsafe sexual activity [1], history of needle stick accident [1] and undetermined [1] risk behavior in 1 co-infection HCV/HIV virus was IV drug injection. Comparing prevalence rate of co-infection HIV with HBV/HCV positive patients with other western country conclude that prevalence rate of these co-infection in Iran is very low. In Iran risk behaviors for co-infection HCV/HIV is similar to other co-infection e.g. is more common in IV drug injections. Regardless of low prevalence rate of co-infection HCV/HIV in Iran, it is advised that more studies conduct with bigger sample size and in special situations with risk behaviors such as prisoners for evaluating of prevalence of HIV infections for preventing disability of this fatal disease.

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