

A COMPARATIVE STUDY OF VIRAL HEPATITIS INCIDENCE IN 2022 FROM INDIA AND BELARUS

Introduction

Viral hepatitis is a group of infectious diseases characterized by inflammation of liver, primarily caused by viral infection [1]. The causative agent (hepatitis A, B, C, D and E viruses) have been circulating in the human population for millennia this condition can lead to a range of health issues from mild illness to chronic liver disease, cirrhosis, and even liver cancer [1]. According to sustainable development Goals (SDGs) viral hepatitis threat as a comparable to the “big three” communicable disease – HIV/AIDS, tuberculosis, and malaria [2]. HAV is a positive-sense, single-stranded RNA virus, Unlike hepatitis B virus (HBV), which is transmitted through exposure to Blood and various body fluids of infected people, HAV is largely transmitted by fecal oral route and causes acute hepatitis. Although hepatitis A infection does not lead to chronic liver disease and has very low mortality. Chronic HBV infection is a major risk factor for chronic hepatic insufficiency [1,3]. Acute illness manifests symptoms, including fever, abdominal discomfort, diarrhea, darkened urine, anorexia, nausea, vomiting, and jaundice. In rare cases, fulminant hepatitis is characterized by severe liver dysfunction. Hepatitis C virus is an RNA virus that is significantly less contagious than hepatitis B virus and is usually spread through blood or blood products. Hepatitis C virus (HCV) provides significant information about the chronicity and activity of an infection [4]. The hepatitis delta virus (HDV) is an incomplete single-stranded RNA virus, which uses the hepatitis B surface antigen (HBsAg) as its envelope and this infects only patients who are infected with hepatitis B virus, hepatitis E primarily transmitted via fecal oral route similar to HAV. Hepatitis E (HEV) is transmitted via fecal-oral route through contaminated water. This study analyzes and compares the incidence of viral hepatitis between Belarus population and Indian population.

Goal

The primary aim of this study was to summarize the incidence of viral hepatitis in India and Belarus during 2022.

Material and methods of research

This study is a systematic review and meta-analysis of research conducted in previous years. We conducted a systematic search in Major scientific database including, GOOGLE SCHOLAR, PubMed, WHO, science direct.

The results of the research and their discussion

In this retrospective study, hepatitis A (HAV) in India during 2022 overall, 1144 from these 690(0.0069 in core) were finally included in study. The cases were divided into 3 age groups, pediatrics, adolescents and adults. Pediatric (less than 12 years) – 212 cases and (adults less than) 18 years 304 and adolescents (above the 18 years) 174. Remaining patients 450 were excluded because of reasons such as lack of clinical data, insufficient blood samples, HIV / hepatitis B/Hepatitis C infection [6]. According to WHO, India accounted for the second-highest number cases of hepatitis B (HBV) and (HCV) in 2022 after China, with 3.5 core infection. Hepatitis E (HEV) this infection disproportionately affects young aged 15 to 40 years. 3.3 million symptomatic cases of hepatitis E were estimated.

In 2022, Belarus reported varying incidence of hepatitis. Hepatitis (HAV) recording an incidence rate of 0.3505 per 100 thousand population. Hepatitis (HBV) incidence rate of 0.2300 followed by hepatitis (HVC) incidence rate of 0.6025. while hepatitis C shows higher incidence. In contrast, hepatitis E (HEV) had a significantly lower incidence, with only 0.110.

Incidence Cases of Viral Hepatitis during 2022 in India & Belarus

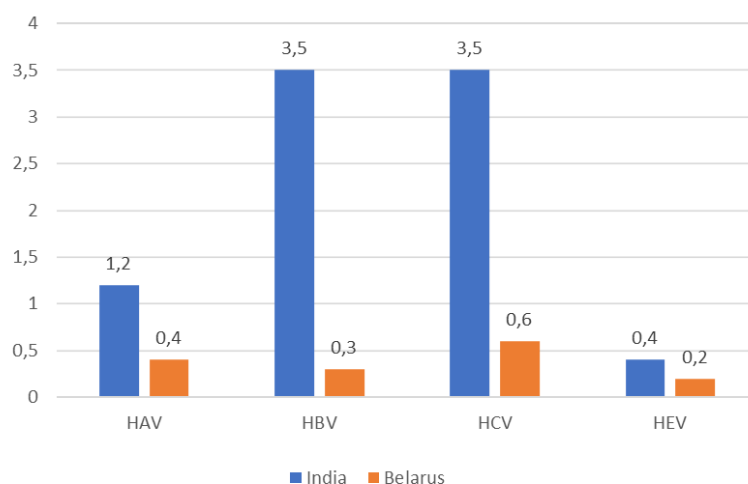


Figure 1– Viral hepatitis incidence during 2022

Conclusions

In this study we conclude that viral hepatitis between India and Belarus in 2022. Hepatitis C (HCV) has more incidence rates in Belarus. And Hepatitis B (HBV) and Hepatitis C (HCV) is more in incidence rates in India.

Hepatitis C is more common in Belarus due to combination of factors include sterilization, the prevalence, prevention of injection drug use, limited access to harm reduction programs. Additionally, awareness and screening efforts have been insufficient, leading to undiagnosed and untreated cases that contribute to virus spread.

Hepatitis B and C are more common in India due to factors including the high population density, which facilitates the spread of blood-borne infection, and historical gaps in healthcare practices such as inadequate sterilization and unsafe blood transfusion.

Hepatitis A are affected to young, aged peoples. We Advocate for comprehensive vaccination programs to protect against hepatitis A ensuring a healthier and safer future for all.

The goals of viral hepatitis treatment include viral suppression, liver health function, prevention of complications, and enhancing the quality of life.

LITERATURE

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