

ABSTRACT

Viral hepatitis are diseases that affects the liver tissue and leads to serious health complications in the individual. Each of these viruses is specific in its transmission, severity and distribution both worldwide and regionally. This diploma thesis deals with the epidemiological situation of hepatitis A, B and C in Czechia from 2000 to 2019. The data come from the Information System of Infectious Diseases (ISIN) are anonymized and aggregated for districts. During the monitored period, a total of 36,311 cases of viral hepatitis A, B and C were registered. In this diploma thesis, three partial goals were set, theoretical, empirical and practical, on the basis of which the whole written work is structured. The theoretical goal is to describe the epidemiological situation and current knowledge about the occurrence and spread of viral hepatitis in the world, Europe and Czechia. The empirical goal is based on detailed data on the incidence of viral hepatitis A, B and C in Czechia at the district level to perform an analysis and describe in detail the development of these diseases in our territory. The practical goal of the work is to clearly present the data obtained and analyzed in the form of an online map application. The work is a detailed search of foreign literature and based on available international data which presents the incidence and development of diseases of individual viral hepatitis in the world and Czechia. Based on the values of Moran I, viral hepatitis A, B and C showed a positive spatial autocorrelation at the level of Czech districts and their spatial dependence was confirmed. LISA cluster analysis identified outbreaks in all three hepatitis. Outbreaks of hepatitis A vary depending on the type of epidemics; in most cases, these are always localities with socially disadvantaged populations. Hepatitis B and C show persistent outbreaks of the disease, which are associated with higher concentrations of intravenous drug users. This diploma thesis analyses and describes the basic spatial patterns of behavior of hepatitis A, B and C in Czechia. The dependence of the occurrence of individual hepatitis on the territory of Czechia was proved and their outbreaks were identified. It is an insight into the epidemiological situation of viral hepatitis in Czechia due to the limited amount of data and information. These analyses may be the first step towards deeper analyses that could further clarify the reason for the behavior of hepatitis in Czechia.

Key words: hepatitis, spatiotemporal analysis, epidemiology of infectious diseases, local LISA analysis