УДК 61:615.1(062)(476-25) ББК 52я73 A 43 ISBN 978-985-21-1258-1

Jain A., Lonar N. THE BURDEN OF VIRAL HEPATITIS A IN INDIA

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Viral hepatitis A is an inflammation of the liver caused by the hepatitis A virus (HAV). The virus primarily spreads when a susceptible person consumes food or water contaminated with the feces of an infected person. The disease is closely related to unsafe water or food, inadequate sanitary conditions, poor personal hygiene and oral-anal sex. From 6 to 10 thousand cases of acute hepatitis A are registered annually in India. India does not have a case-based surveillance system for viral hepatitis. The Integrated Disease Surveillance Program (IDSP) in India conducts surveillance in all states for outbreak-prone diseases, including viral hepatitis. Aggregate numbers of patients with viral hepatitis seeking care from public health facilities and selected private health facilities are reported to district surveillance units every week. For a long time, viral hepatitis A in India affected mainly the child population and usually led to mild hepatitis without jaundice. The majority of children (85%) under the age of 2 years and about 50% aged 2 to 5 years had nonspecific symptoms and usually suffered hepatitis A in subclinical and non-jaundice forms. Thanks to the active involvement of children in the epidemic process, population immunity was formed and the adult population was less ill. However, due to rapid socio-economic development in some areas, certain segments of the population reach adolescence/adulthood without prior contact with the virus and, therefore, are susceptible to infection. At this age, infection is associated with a higher risk of developing symptomatic diseases and complications, including mortality. It is known that viral hepatitis A causes a severe course of the disease with increasing age of the patient and in the presence of concomitant chronic liver disease. It was noted that the mortality rate is highest in patients older than 50 years (1.8%) compared to younger adults (0.3%).

In regions where sanitary conditions have improved rapidly, cases of hepatitis A infection in adolescents and adults are regularly recorded, since they do not have immunity as a result of exposure in early childhood. In India, the burden of hepatitis A is increasing, and this disease is mainly registered among adolescents and adults. In a public study on hepatitis A control in India, it was noted that the frequency of seizures was highest in the age group of 15-24 years, followed by the age groups of 5-14 years and under 5 years, respectively. Recently, there has been a seroepidemiological shift in relation to hepatitis A in India, and there is an increase in morbidity among the adult and adolescent population compared to children. This is due to the transition of certain territories of states with high endemicity to the status of medium-endemic territories. V. Arancale et al. in their study conducted on 928 children aged 18 months to 10 years, they tried to assess age-related seroprevalence to the hepatitis A virus. Of the 348 children who tested positive for anti-HAV, 50.3% belonged to the age group of 6-10 years and 30.3% to the age group of 18 months to 6 years. It was also noted that seropositivity to a particular disease is closely related to the educational and socio-economic status of parents. Subjects who used a private toilet in the house were less likely to be seropositive (33.1%) compared to subjects who used an open field to remove excrement (75%). This study clearly demonstrated a higher seropositivity at the birth of older children and established a clear link between an improvement in living standards and a decrease in seropositivity at the birth of older children.

India, previously a country with a high degree of endemicity, is now moving to intermediate endemicity in some areas of cities and in higher socio-economic strata of society. Seroprevalence studies show susceptibility in 30-40% of adolescents and adults belonging to a high socio-economic class, with regional differences. The diverse variation in the rates of seropositivity across various cities in different locations of India confirms the need for routine vaccination. The Indian Academy of Pediatrics recommends using two doses for vaccination of any of the licensed vaccines, which should be administered at intervals of 6 months to children aged 1 year and older.