



CAUSES AND PREVENTION OF VIRAL HEPATITIS A DISEASE AMONG THE POPULATION OF THE SOUTH REGIONS OF THE REPUBLIC OF UZBEKISTAN

Pardaev Erkin Soatovich

Assistant of the Termez Branch of the Tashkent Medical Academy

Annotation

This article provides information about the causes of viral hepatitis A among the population of the southern regions of the Republic of Uzbekistan, prevention, incidence rates among children, as well as the results of scientific research conducted by scientists, and conclusions.

Keywords: viral hepatitis A, vaccine, prevention, vaccination, inactivation.

Introduction

According to the World Health Organization, approximately 7,134 people died from hepatitis A in 2020 (0.5% of the total). According to the State Statistics Committee of the Republic of Uzbekistan, the number of hepatitis A patients in 2021 was 118 per hundred thousand people.

According to the World Health Organization, approximately 1.5 million people are infected with viral hepatitis A (VHA) each year, but the actual incidence of this infection may be ten times higher. In Uzbekistan, hepatitis A dominates the etiological structure of acute viral hepatitis. The number of people infected with VHA in Uzbekistan in 2013-2018 was 206,126. The majority of those infected with VHA were among the rural population. During the indicated period, 206,126 people were registered with VHA disease, 133,827 of them were rural residents, which constituted 65 percent.

After entering the body, the hepatitis A virus enters the bloodstream through the epithelial cells of the mouth or intestine. [1]. The blood carries the virus to the liver, where the virus multiplies in hepatocyte cells (macrophages of the liver). Virions are excreted in the bile and excreted in the feces. Anti-hepatitis A virus is significantly secreted in the blood about 11 days before the appearance of viral particles or IgM. The incubation period lasts from 15 to 50 days, the mortality rate is less than 0.5 percent.

In hepatocytes, the genome RNK comes out of the protein layer and changes into the ribosomes of the cell. RNK virus requires transformation factor 4G (eIF4G) using a karyotype factor to initiate transformation [2].





In May 2016, the World Health Organization for the first time adopted the "Global Strategy for Viral Hepatitis in Healthcare 2016-2021". This strategy includes the concept of viral hepatitis transmission as a public health problem, which is reflected in the global goals of reducing the incidence of viral hepatitis by 90% and mortality from viral hepatitis by 65% by 2030. [3].

If in the previous hundred years, Hepatitis A was a child's disease and it was considered as a mild disease, nowadays severe cases of hepatitis A disease, long-lasting fulminant forms are encountered. As a result of this, the development of acute liver failure and death have been reported in several medical centers [4]. According to several authors, the fulminant form of VHA is 1-6% [5]. Few scientists have recognized the importance of vaccination in preventing hepatitis A. [6]. According to the study of several scientists, hepatitis A disease acocan causes chronic liver disease in people over 40 years of age, as a result of various etiologies. The main criterion for the severe course of VGA is the severe course of the intoxication syndrome (general weakness, adynamia, dizziness, vegetovascular disturbances, and in some cases memory loss) [7,8,9].

The purpose of the study: to study the incidence of viral hepatitis A in the southern region of Uzbekistan based on the results of epidemiological analysis. Vaccination measures against hepatitis A disease are studied on the basis of documents, and the incidence of disease among the population in different periods is determined using the method of comparison. To do this, analyze the incidence of disease among children of different ages, organized and unorganized. The aim was to evaluate the effectiveness of vaccination against hepatitis A disease by detecting morbidity among vaccinated people.

Material and inspection methods. If we look at the analysis of the center of sanitary epidemiology in 2020-2021 at the regional level, the increase in the incidence of viral hepatitis among the residents of Acocan region has been observed in the last 3 years.

In particular, in 2020-2021, a total of 3,661 children were registered with viral hepatitis A, in 2020, 2,027 children were registered with viral hepatitis A. Despite the decrease of 2.1% compared to the same period in 2018, in the Kumkurgan district of the region, 21.8 We can see that it increased by 3.1% in Termiz district and 2.3% in Angor district (Table 1).





Table 1.

Status of registration of viral hepatitis A disease among the population

Years	Sick people Number
2018	1984
2019	2027
2020	1634
2021	2783

The disease mainly occurred in preschool and school-age children under 7 years old. In 2021, a total of 1,634 children were registered with viral hepatitis A in the region, despite a 26.1% decrease in the region compared to 2020, this figure was 4.25% in Uzun district, 4.0% in Muzrobod district, 6% in Kiziriq district. We can observe that it increased by 9 percent.

During 2021, a total of 2,783 children were diagnosed with viral hepatitis A in the region, and compared to the same period in 2020, there was a 2-fold increase in the region, this indicator was 3.9 times in Shorchi district, 3.8 times in Kyziriq district, 2.4 times in Muzrobod district, It increased by 2.9 times in Termiz district, 2.8 times in Termiz city, 2.7 times in Uzun district, 2.3 times in Angor district, and 2.6 times in Jarkurgan district. We can see that the incidence has increased to 95.0% in Sariosiyo district, 84.0% in Oltinsoy district, 60.0% in Sherabad district, and 23.8% in Boysun district.

In 2020, according to age analysis, 19 people under 2 years old, 250 people under 3 years old, 236 people under 4 years old, 232 people under 5 years old, 234 people under 6 years old, 416 people under 7-9 years old, 247 people under 10-14 years old it was found that it was recorded in the child (chapter 2).

Table 2. With viral hepatitis A disease by age analysis of patients

By age	2020 year	2021 year
2 years old	19	135
3 years old	250	487
4 years old	236	511
5 years old	232	474
6 years old	234	522
7-9 years old	416	554
10-14 years old	247	100
TOTAL	1634	2783



In 2021, when analyzing the registered hepatitis A cases by age, including -4 people from 1 years old, 131 people from 2 years old, 487 people from 3 years old, 511 people from 4 years old, 474 people from 5 years old, 522 people from 6 years old, 554 people from 7-9 years old we can see that it is recorded in children.

When studying the prevalence of VHA disease by age using the graphic structure, it is observed that children between the ages of 3 and 10 are more affected by the disease. Age-related incidence rate of hepatitis A among residents of Surkhandarya region. Since 2020, prophylactic vaccination against viral hepatitis A disease has been organized in the province, and during 2021, all 441 children under 7 years of age were voluntarily vaccinated, which made up 1.0% of the total number of children under 7 years of age.

Today, preventive vaccination against viral hepatitis A should be vaccinated mainly from the age of 16 months, but we can witness that in the region preventive vaccination is carried out among 2-3-year-old children. For example: during the past 2020, 12,211 children in the region were vaccinated with preventive vaccination, which made up 2.7% of the total number of children under 7 years of age. Incidence reduction can be achieved only when at least 50.0% of Bulgarian children under 7 years of age are covered by preventive vaccination. Of 12,211 children covered by preventive vaccination, 5 cases (0.04%) of hepatitis A were recorded, if this is less, in communication with the patient and was vaccinated prophylactically during the latent period of the disease (section 3)

In 2021, 26,618 children under the age of 7 were vaccinated against hepatitis A, of which 9 (0.03%) were diagnosed with hepatitis A. As a result of preventive vaccination coverage of 5,286 children under 7 years of age in Denov district of the province during 2021, morbidity in the district decreased by 33.3 percent.

Table 3. Information on the incidence of hepatitis A virus among children vaccinated in the Southern region in 2020-2021

Years	Vaccinated children		
	Number	The disease is recorded	%
2020	12211	5	0,04
2021	26618	9	0,03

75.0% of the children infected with hepatitis A registered in the province during the past 3 years are unorganized, and the remaining 25.0% are registered in the organized community.



Summary

The most important method of prevention is to send an anti-infective agent to the body through deep immunization of vaccination. The vaccine consists of an inactivated live hepatitis A virus, which causes the body's immune system to produce antibodies. In addition, immunity against the disease is formed, which ensures an increase in the body's resistance to the disease. In this respect, vaccination against the disease reduces the risk of its spread and, in severe cases, death. The following conclusion can be reached based on the results of the analysis of the enameled works carried out in recent years. Vaccination against VG A has a reliable and long-term protective effect. In order to cover as many children as possible with the vaccine, it is necessary to increase the public awareness of the importance of this work in preventing the hepatitis A disease, and in the future, it is considered one of the urgent issues to include this vaccination among the scheduled vaccinations.

REFERENCES

1. Murray P. R., Rosenthal K. S., Pfaller M. A. (2005) Medical Microbiology 5th ed., Elsevier Mosby.
2. Aragonés L, Guix S, Ribes E, Bosch A, Pintó RM (2010) Finetuning translation kinetics selection as the driving force of codon usage bias in the hepatitis A virus capsid. PLoS Pathog. 6(3): e1000797
3. Рупасова А.Р., Сорокина А.Ю. Вирусные гепатиты // Международный студенческий научный вестник. - 2018. - № 4-2.
4. Хохлова Н.И., Толоқонская Н.П., Лапицкая Н.М., Губарева Е.А Вирусный гепатит А у взрослых на современном этапе. Инфекционные болезни. 2006; 4 (4): 28-31.
5. Кареткина Г.Н. Вирусный гепатит А в прошлом, настоящем и будущем. Инфекционные болезни: новости, мнения, обучение. 2014; 3 (8): 38-48.
6. Юсупов Ш.Ш., Маматназарова Г.С., Брянцева Е.В. Вирусный гепатит -А в Хораземском вилояте /XXI аср тиббиётдаги долзарб масалалар. II Халқаро илмий- амалий online конференцияси материаллари.
7. Бургасова О.А., Волкова В.М., Тетова В.Б., Беляева Н.М. Взгляд клинициста на особенности клинического течения и вопросы вакцинопрофилактики вирусного гепатита А. Медико-социальная экспертиза и реабилитация. 2017; 20 (1): 37-45.
8. O.M. Mirtazaev. Epidemiological features of viral hepatitis A (VGA) disease. // Proceedings of the scientific-practical conference "Infection and drug resistance". - Tashkent, 2017 - B. 194.
9. O.M. Mirtazaev. Epidemiology. // "Abu press-consult" publishing house. - Tashkent, 2016.

