

## FEATURES OF THE EPIDEMIOLOGICAL SITUATION OF POLIO IN UKRAINE

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**Introduction.** Polio - a contagious viral disease that affects the nervous system - is incurable, it can only be prevented by vaccination. In one of the 200 cases of infection with the polio virus develops irreversible paralysis. Due to paralysis of the respiratory muscles to 10 percent of cases die.

**Aim:** to explore the history of polio and assess the situation with polio vaccinations in Ukraine today.

**Materials and methods.** We have studied the WHO material about the history of polio vaccine and materials Sanitary and Epidemiological Service of Ukraine on the situation of polio in Ukraine today. The infectious agent of this terrible disease, which causes fear in people has 3 thousand years ago, was discovered only in 1913 K. Levaditi, who worked for 60 years at the Pasteur Institute and the Institute for Fournier in Paris. He was one of the first researchers who raised the viruses on living cells, and the first in the world by the experimenter, who managed to grow the polio virus in vitro on cells of the spinal ganglion monkey. It turned out that poliomyelitis (children's infectious palsy) - severe viral disease caused by several types of viruses. It was necessary for the prevention of the terrible disease urgently create a safe vaccine. However, scientists have been able to succeed only after the discovery of D. Enders and Frederick Robbins, who in 1949 proved that the polio virus can be cultivated in tissue culture (monkey kidney cells). In 1954, the American scientist J. Salk produced a vaccine based on formalin-inactivated virus grown in monkey kidney cells. D. Salk tested the safety of the vaccine on himself and volunteers - students who choose to participate in this important experiment to be vaccinated three of his sons. The vaccine has been tested and handed over to the US health authorities. 46 Salk vaccinated children fell ill severe paralytic form of polio. But soon 46 Salk vaccinated children fell ill severe paralytic form of polio. As a result, it was found that all my fault not in itself a vaccine, and the negligence of the pharmaceutical company's experts "Boat." Employees of the company, violating method Salk, cooked poor quality vaccine containing live virus. Thus, instead of killed virus for children was introduced virulent culture of poliomyelitis virus. However, the tragedy occurred expediency dictated new searches. Polio vaccination has made a huge step forward when the practice was introduced vaccines using attenuated formalin not aggressive viruses and modified live viruses. This "tamed" a strain that does not cause paralysis and creating strong immunity, was isolated American researcher Albert Sabin. The vaccine has been tried it on themselves, their employees, and then to his daughters. On the basis of isolates of A. Sabin, Russian scientists A.A. Smorodintsev and M.P. Chumakov in 1956-58 vaccine manufactured in the form of a syrup or candy-coated tablets. In Moscow in 1955, Institute of Poliomyelitis was created, whose director was one of the founders of the domestic Chumakov vaccine.

He organized the production of a live polio vaccine, the implementation of which in practice has led to the eradication of polio outbreaks in the USSR and other countries.

**Results and discussion.** In Europe, the last case of wild poliovirus has been registered in Bulgaria in 2001, in the Odessa region - in 1958. The local media start of the new century and millennium, it was reported that in Ukraine in connection with the aggravation of the epidemiological situation on polio in the years 1992- 1996 (32 cases) mass immunization days were conducted. Then, about two million vaccinated children, and two rounds of "catch-up" immunization in eight administrative regions were organized in 1998 to the year. This made it possible to vaccinate another 500 thousand children. Ukraine has managed to carry out the whole range of preventive, recommended by the WHO, which made our country the right to receive a certificate of polio eradication. In 2002, WHO has provided Ukraine the status of a territory free from poliomyelitis. In 2010, several cases of polio have been reported in Russia, imported from Tajikistan, one - with fatal consequences. In Tajikistan, 705 cases of acute paralytic polio were reported in 2010. Of these, 458 cases of wild poliovirus was isolated type 1. 26 people (adults and children) died. The outbreak in Tajikistan was eliminated due to the massive anti-viral activities. In 2012, the chief state sanitary doctor of the Russian Federation adopted a resolution number 17 from 22.02.2012 "On supplementary immunization activities against polio in the Russian Federation in 2012". But in the current 2013 polio again looked up from January to September 18, the world's recorded 264 cases of infection caused by wild polio virus (Somalia, Kenya, Ethiopia). The World Health Organization noted that our country is particularly vulnerable to the epidemic because of low vaccination coverage against polio: the graft is only 74% of the population. Polio is caused by an infection of one of the three types of poliovirus. All three species can cause paralysis. Polio infects only humans, spread occurs from person to person. No long-term carrier of poliovirus, it spreads mainly by the fecal-oral route, especially in countries with poor sanitation. In countries where high-level sanitation, polio virus is transmitted primarily by respiratory, most often affecting children under five years. Before the polio vaccine poliovirus was observed all over the world.

According to WHO, in today's world remain endemic for polio-3 countries - Afghanistan, Pakistan and Nigeria, where polio virus circulating always the incidence has never been stopped. Today, the epidemiological situation of polio in the world is unfavorable, since February this year, poliovirus was isolated from sewage Egypt, and from February to August - in Israel in environmental samples in healthy humans.

**Conclusions.** Preventive work, which took place in Ukraine after the receipt of the certificate of polio eradication allowed to retain favorable situation with respect to this dangerous disease. But now the threat of an epidemic in our country, according to WHO recognized as real. The instability of the socio-political situation, the economic decline may have the consciousness of the population - is one thing. But no less worried and lasting for several years, the distrust of our fellow citizens to such an important preventive direction as vaccination. According to UNICEF data, in Ukraine the level of vaccination against 10 infectious diseases has decreased from 80% (in 2008) to 50% in the 2012th. A vaccination against such diseases as polio - is actually warning of morbidity and mortality.