

RABIES: THE EPIDEMIOLOGY SITUATION IN THE WORLD

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rabies is a viral disease transmitted mainly from animals to humans, which is mainly spread by dogs and other carnivores. The statistics of rabies cases around the world, its most common areas and risk groups are analyzed. It also examines global initiatives to prevent rabies, vaccines and the role of health systems.

INTRODUCTION. Rabies is an acute infectious zoonotic disease caused by a neurotropic virus; It is accompanied by vasoconstriction, paralysis, spasm of the larynx and respiratory muscles. Rabies has been known since ancient times and has also been called the disease of fear of water (see Hydrophobia). French scientist Louis Pasteur discovered a vaccine against rabies in the second half of the 19th century, so all institutions that carry out anti-rabies activities are called Pasteur stations. Thanks to their work, the lives

of millions of people who were vaccinated in time after being bitten by a rabid animal were saved. The causative agent is a wild rabies virus that selectively damages nerve cells. The virus is resistant to cold, it can be stored for a long time when frozen. It quickly dies in the external environment, as well as when boiled, in 3-5% lysol, chloramine solutions. The latent period of the disease in animals is 14-16 days. This is followed by restlessness, predatory behavior, changes in behavior, and excessive salivation. The animal does not eat or drink anything. Then the blood vessel constricts, paralysis begins, and the animal dies. Humans are infected with the rabies virus when they are bitten by an infected animal, mainly dogs, cats and other animals, or when their saliva gets on the skin. The latent period of rabies in humans lasts from 15 days to several months (20-30 days on average). This period is shorter when a rabid dog bites the neck and face, and longer when it bites the leg. The main source of the rabies virus is carnivores, especially dogs and other carnivores (eg, cats, foxes). The virus is mainly spread through saliva in the mouth of animals. People can become infected by direct contact with animals infected with rabies or by being bitten by them. In the world, rabies is more common in developing countries. More than 59,000 people die each year from rabies, mostly in African and Asian countries. Epidemiology (epidemic and ...ology) is a branch of medicine. He studies the causes and spread of infectious diseases, as well as develops measures to combat and prevent them. Epidemiology is closely related to biology, microbiology, virology, genetics, biochemistry, physics, etc. General and private Epidemiology is different. General Epidemiology studies the evolutionary basis of the classification of infectious diseases, the epidemic process, the categories and laws of Epidemiology; Private Epidemiology studies the specific history, causative agent, epidemiology, source of infection, ways and means of transmission, methods of combating and prevention of each infectious disease. According to the World Health Organization, 59,000 people die from rabies every year. Ninety-nine percent of them were bitten by a rabid dog. However, the availability of vaccines for animals and humans has led to a decrease in the death rate of rabies. The virus affects the central nervous system, especially the brain. Skunks, domestic dogs, cats, rabbits and wild animals can transmit the virus to humans through bites and scratches. Dependent on prompt treatment to combat rabies. The main symptom of rabies in humans is hydrophobia, or fear of water. First there is a fear of drinking water, then there are signs of fear at the sight of water and when talking about water. There are also tremors of the swallowing muscles, fear, convulsions, and interruptions in breathing. Seizures occur under the influence of sound and light; the patient begins to break everything and throw himself at people, after a "violent" attack, "silent"

begins - the initial sign of paralysis. Then the patient stops breathing and dies. The time from the bite to the appearance of symptoms is called the incubation period of the disease. Symptoms of rabies usually begin 4-12 weeks after a person is infected. However, the incubation period can also be several days or up to six years.

Rabies begins with flu-like symptoms, including:

Fever;

Muscle weakness;

Pains.

In addition, a burning sensation may be observed at the bite site.

In addition to these main symptoms, there is also an increase in body temperature up to 37°C, mental depression, sleep disturbance, insomnia, restlessness, pain in the bitten area (even if the wound has healed). As the virus continues to damage the central nervous system, the disease can develop in two different ways. The rabies virus dies quickly in the external environment. The rabies virus is transmitted to humans through the saliva of rabid animals when they are bitten or scratched. Any contact with mucous membranes or an open wound can cause the virus to spread. The virus can only be transmitted from animal to human or from animal to animal. Although human-to-human transmission of the virus is rare, a few cases have been reported. When a person is bitten, the virus spreads to the brain through the nerves. The virus starts multiplying rapidly in the brain. This activity causes severe inflammation of the brain and spinal cord, and the person's condition quickly deteriorates and the person dies. If the injury is in the head or neck area, the damage to the brain and spinal cord starts faster. If the injury is in the neck, you should seek help as soon as possible. There are no methods to detect early stages of rabies infection. After symptoms begin, a blood test or tissue analysis can help a doctor determine a person's medical condition. If a person is bitten by a wild animal, doctors usually prescribe a preventive rabies vaccine to stop the infection before symptoms appear. Laboratory diagnosis is usually not carried out, but there is a method for detecting rabies virus antigen from the surface of the eye. After contracting the virus that causes rabies, a person is given a series of injections to prevent the disease. Anti-rabies immunoglobulin is given to fight the virus. It allows you to immediately give anti-rabies antibodies and prevent the virus from entering. Then getting the rabies vaccine is key to preventing the disease. Rabies vaccinations are given in a series of five injections over 14 days. Animal control will try to locate the animal that may have bitten the person for investigation. If the animal is not rabid, a person can get rid of injections. However, if the animal cannot be found, the safest course of action is to receive

treatment. The sooner the rabies vaccine is taken, the greater the chance of preventing the disease. Doctors treat the wound by washing it with soap and water or iodine for at least 15 minutes. Then they will inject immunoglobulin and begin a series of injections for the rabies vaccine. This protocol is called "postal prophylaxis". To prevent rabies, it is important to vaccinate animals first. Dogs and other pets should be vaccinated regularly. Also, people should be careful when dealing with animals. In addition, it is important to raise awareness about rabies in society, to increase caution towards animals and to inform health workers about the symptoms of the disease. Rabies is a serious epidemiological problem that requires a global concerted effort to prevent it. By vaccinating animals, educating the public, and strengthening health systems, we can help reduce this dangerous disease. Everyone should feel responsible for their own health and contribute to preventing the spread of diseases such as rabies.

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