

Clinical Course of Measles in Children Under 1 Year of Age

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Abstract: Measles - symptoms, ways of transmission, complications, treatment, prevention Measles is an acute infectious viral infection and is highly contagious. The symptoms of the disease are manifested by high fever, characteristic rash, sore throat, cough, severe intoxication of the body.

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About measles in children

This disease kills 150,000 people worldwide every year, mostly children under 10 years old. Therefore, everyone, especially parents of young children, should know what measles is. Causes of the disease The source of infection is a sick person. The virus is transmitted by airborne droplets and is highly contagious. The causative agent of the disease is an RNA virus belonging to the family of paramyxoviruses, the genus of morbilliviruses. Paramyxovirus is unstable outside the body, it quickly dies under the influence of ultraviolet rays and low humidity, but it can be preserved at low temperatures (-70 °C).

Ways of transmission

Measles occurs seasonally - from October to April - due to the fact that people spend more time indoors during this season. Infection of children often occurs in kindergartens. Because the virus is resistant to the external environment, cases of infection through third parties are very rare. The infectious agent is transmitted from a patient to a healthy person through the air-droplet route. 3-4 days before the rash of the disease (incubation period), the virus begins to spread actively. At this time, the absence of clinical signs of the disease causes healthy people not to take precautions. In general, an infected patient is dangerous for others for 7-10 days. Unvaccinated people have almost 100% chance of getting infected in close contact with the patient. The pathogen can also spread over long distances through airways, such as stairs, ventilation shafts in high-rise buildings, etc. As a result of the introduction of planned vaccination in the last decade, the incidence rate in children has decreased significantly, but among the adult population, there are many people who do not have immunity against paramyxovirus. This causes a large number of diseases among adults, as well as cases of measles passing from mother to child in the womb. If a person has a disease and recovers, then permanent immunity is formed for the rest of his life, and the probability of re-infection is very low. Relapses are usually associated with immunodeficiency. Measles in children under two years of age is usually observed when the mother does not have natural or vaccine-induced immunity against paramyxovirus. Taking into account the risk of the disease for babies, women are recommended to receive a vaccine against paramyxovirus during pregnancy.

Incubation period

The causative agent of measles enters the human body through the mucous membranes of the respiratory tract and organs of vision. Three days after entering the virus, the paramyxovirus enters the bloodstream, spreads through the lymph nodes and settles in the spleen, where it actively multiplies in the bloodstream during the incubation period (7-17 days) After the incubation period of the virus is over, newly formed viruses spread throughout the body, damaging the skin, conjunctiva, organs of the gastrointestinal tract, respiratory system and nervous system.

Symptoms of measles

Measles symptoms differ in adults and children due to the maturity of the body, the difference in physiological processes and the formation of immunity. In adults, the disease is often more severe than in children.

In children

Symptoms in children vary depending on the period of the disease. The initial period, characterized by catarrhal symptoms and general intoxication, lasts 3-5 days. After the catarrhal period of measles, there is a period of typical measles rashes on the skin. 3 from the manifestation of rash disease

In adults

Clinical manifestations of measles in adults have the same periods as in children. However, the symptoms are more pronounced, the disease is more severe, and the probability of complications is higher. Symptoms include tachycardia (more than 100 beats per minute), a drop in blood pressure, and subcutaneous bleeding due to capillary damage.

Atypical forms of measles

In the typical clinical presentation of measles, all characteristic symptoms are preserved, but in atypical forms, the symptoms may differ, in particular: Treatment of measles Today, there is no specific therapy aimed at fighting paramyxovirus. Treatment is based on reducing the severity of symptoms, preventing or correcting complications. After the onset of the disease, it is important to follow bed rest and follow a dairy-vegetable diet during the first 7-10 days. Spicy, fatty, fried, and other products that irritate the mucous membrane of the gastrointestinal tract are excluded from the menu. Taking into account the patient's fever, frequent defecation, and diarrhea, it is important to drink enough fluids. If necessary, electrolyte solutions are used. It is known that the disease is significantly more severe in patients with vitamin A deficiency. Therefore, prescribing a mono- or multivitamin is considered part of the treatment of measles.

Medicinal therapy

Symptomatic therapy depends on the symptoms of the disease: clinical signs determine the drug to be selected. In conjunctivitis, the conjunctiva is washed with physiological solution, tincture of smallpox, warm boiled water, 2% sodium bicarbonate solution (baking soda). If conjunctivitis is bacterial in nature and purulent discharge is observed, antibacterial eye drops are prescribed. In order to alleviate the situation in tumor, locally acting vasoconstrictors and washing the nasal passages are used. When a dry, frequent, debilitating cough is observed, antitussive drugs are prescribed. If there is a tendency to a convulsive reaction against the background of high body temperature or hyperthermia, antipyretic drugs are used. In some cases, therapy is aimed at strengthening the body's defenses. If the child shows signs of severe intoxication or the patient is a debilitated adult, this condition is an indication for inpatient treatment with the use of immunoglobulin to increase the overall immune efficiency of the patient. When severe allergic reactions, signs of intoxication, swelling are observed, antihistamines can be used (Suprastin, Fenistil, Zyrtek, etc.). Weakened form. This is typical for patients who have undergone preventive procedures (immunoglobulin, steroid hormones, transfusion of blood, plasma from immune donors, etc.) during the incubation period of the disease. In this case, the incubation period can be extended up to 21 days. In this form, the symptoms are not clearly expressed. Body temperature can be normal or rise to subfebrile level. The duration of the rash is shortened, there are no rashes on the mucous membranes, and the exanthema is smooth. The disease passes quickly and without complications.

Abortive form. This form begins like a usual measles infection, but after 2-3 days the clinical signs of the disease disappear. Hyperthermia occurs only on the first day, after which the temperature returns to normal. The rash is mainly on the face and upper body. Dim shape. This is more typical for patients who have received vaccinations. The symptoms are not clearly expressed, the patient recovers quickly and without complications. Asymptomatic form. It is characterized by the absence of specific symptoms and is determined only by laboratory analysis of blood for immunoglobulins. The aggravated form is rare. Strong intoxication of the body, accompanied by hemorrhagic syndrome, is often considered typical for adults.

Diagnosis

In most cases, the presence of a clear clinical picture of measles infection makes it possible to make a diagnosis after a visual examination. However, differential diagnosis may be required in the early stages of the disease, in mild or atypical form, as well as in diseases such as scarlet fever, rubella, and infectious erythema, in which the rash is similar to other infections.

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