

Modern Features and Courses of Chickenpox in Adults

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Chickenpox is one of the most widespread highly contagious infections, the susceptibility to which reaches 95-100%. Against the background of a decrease in the incidence of “preventable” infections in the structure of infectious pathology, the importance of chickenpox increases. Infection with the Varicella Zoster virus (VZV), usually in adults, leads to lifelong latent persistence of the pathogen in the body of a person who has had chickenpox with a high probability, often after many years, of its endogenous reactivation and the development of such a severe, debilitating disease as herpes zoster (shingles). [4,5]

Prevalence: 60 million cases annually. WHO estimates that 4.2 million severe and complicated cases of chickenpox are hospitalized each year, and 4,200 cases result in death worldwide.

The most severe complication of chickenpox in adults is encephalitis. Despite the fact that the disease in the vast majority of cases is characterized by a benign course, the high intensity of the epidemic process of chickenpox determines the occurrence of significant economic losses associated, first of all, with the temporary loss of ability to work of parents caring for sick children. The occurrence of chickenpox outbreaks complicates the work of children's and educational institutions. Against the background of high morbidity, even relatively rare cases of complications and deaths cause significant social and economic damage [3].

The modern epidemic process of chickenpox is characterized by a tendency for the infection to “mature”, especially among the urban population. Every year, 5 to 6% of cases are adults. The number of sick teenagers aged 15 to 17 years is 3-5%. The risk of complications and deaths from chickenpox in adults is 10-20 times higher than in children. The likelihood of illness in pregnant women increases and, consequently, the risk of intrauterine infection of newborns. The incidence of infections during pregnancy per 100,000 births is 10-20 cases. Developmental defects occur in children infected in utero in less than 0.1% of cases [1,4]. According to foreign sources, the frequency of chickenpox clinically diagnosed in the neonatal period is 1 in 200-1500 newborns, and congenital chickenpox syndrome is 1 in 40,000-80,000 newborns. Thus, in conditions of an epidemic rise in morbidity, including in adolescents, there is a high probability of developing congenital chickenpox, which determines the social significance of this infection [2]. Congenital chickenpox should be suspected if infection with the Varicellazoster virus occurred in utero or intrapartum. The specific manifestations of congenital chickenpox are called congenital chickenpox syndrome.

Chickenpox suffered by a woman from the 8th to the 20th week of pregnancy in 30% of cases ends in stillbirth or death of the newborn. In 60% of surviving children, hypoplastic skeletal defects and neurological abnormalities are formed, in 25% of children there are anomalies of the eyes, genitourinary system and gastrointestinal tract. If infected in the second half of pregnancy, the baby may acquire a latent infection, as a result of which he develops herpes zoster in the first years of life [1,5]. If the mother has herpes zoster, congenital chickenpox syndrome occurs relatively rarely in the fetus, since the fetus is protected by antibodies received from the mother [4]. Mortality from pneumonia in chickenpox in adults reaches 10% [5-23]. The greatest risk of

an unfavorable course of chickenpox is in persons with an immunodeficiency state of any origin, affecting the cellular component of immunity. This is typical, first of all, for patients with HIV infection and patients with chronic diseases (diabetes mellitus, autoimmune diseases, bronchial asthma, acute leukemia, systemic connective tissue diseases). In the territory of Bukhara over the past 10 years, there has been a tendency towards an increase in the incidence of chickenpox among both children and adults, amounting to 151.6 per 100 thousand population. During the period from 2014 to 2024, 130 patients with chickenpox were hospitalized in the boxed departments of the infectious diseases hospital of the BIB. It should be noted that the proportion of severe chickenpox has increased, with the development of purulent-inflammatory complications in 15% of cases. Most patient hospitalizations occur between October and April.

The admission of patients in the autumn-spring period is most often associated with the characteristics of immunity in the winter and spring periods, when the body lacks vitamins and minerals due to changes in diet, physical activity and insolation are reduced. Our data coincide with the data of other authors [1,2] who believe that in the winter-spring period, at the appropriate temperature conditions, the virus can cause epidemics among susceptible people.

Purpose of the study. To analyze the features of the clinical course of chickenpox in adults undergoing hospital treatment, according to the Bukhara Regional Clinical Hospital.

Materials and methods of research. Under our supervision there were 76 patients with moderate chickenpox, aged from 18 to 35 years, who were hospitalized in an infectious diseases hospital. The selection of patients was carried out using the method of continuous observation upon admission to the hospital, excluding secondary infection with another virus.

The criteria for inclusion of patients in the study were: female and male persons, increased body temperature ≥ 37.5 °C in combination with symptoms of intoxication (weakness, chills, body aches, headache), catarrhal symptoms (sore throat), exanthema (polymorphic rash), as well as the presence of informed consent of the patient.

The vast majority of patients were boys (48) (66.3%), girls among the patients were 28 (33.7%). Age composition of the subjects: 47 patients (61.8%) - aged from 18 to 20 years, 23 patients (30.3%) - aged from 21 to 30 years, 6 patients (7.49%) - from 31 to 35 years.

The results of the studies were processed using statistical analysis methods used in biology and medicine.

The discussion of the results. The diagnosis of chickenpox was made on the basis of complaints, medical history and objective data. High suspicion of chickenpox was noted among primary care physicians, which was reflected in a large number of matches between the referral diagnosis (79.6%) and the diagnosis upon admission to the hospital. Examination of patients in the early stages of the disease (in the absence or unexpressed signs of exanthema) led to an erroneous diagnosis upon referral (20.4%). 2 patients (2.6%) did not have a referral to a hospital; the primary diagnosis was made by a doctor in the emergency department of an infectious diseases hospital. As is known, for various infectious diseases, epidemiological history is important for making a diagnosis, which makes it possible to identify the source of infection and promptly begin anti-epidemic measures both in organized groups and closed institutions, and in family units. From the epidemiological history it was found that 56 patients (76.8%) had contact with patients with chickenpox. In particular, 24 people (28.4%) had contact with sick children, 12 people (15.8%) had contact with sick children, the remaining 50 patients (65.8%) were hospitalized not only for clinical, but also epidemiological indications: persons living in dormitories and conscripts hospitalized from a barracks where an outbreak of chickenpox was reported; in 9 cases (11.8%) direct contact with patients with chickenpox was not detected.

The onset of the disease in 54 (68%) patients was acute, in 22 patients (32%) there was a subacute onset with a prodromal period, which lasted from 1 to 3 days: during the prodromal period, patients noted weakness, an increase in body temperature to 37-37.5 °C, dizziness, sore

throat, loss of appetite. Subsequently, there is an increase in body temperature in patients to 38-39 °C. The febrile period in patients lasted from 4.9±1.8 to 6.8±2.0 days. Typically, the body temperature returned to normal with the end of the sleep period. Hospitalization of patients was carried out during the period of rash on the 2-4th day of illness in 72.4% (55 patients) of cases. However, hospitalization was also noted at later stages of the disease - on the 5-6th day in 13.2% (10 patients) of cases.

The period of rashes began mainly with the appearance of several maculopapular elements of the rash, which were localized on the scalp (48.5%), in the behind-the-ear areas (22.8%) or simultaneously on the scalp and in the behind-the-ear areas (28.5%). Over the next 1-4 days, the rash began to spread to the face, neck, torso, upper and lower extremities. Moreover, in 53 patients (69.7%) the rash was scanty on the lower extremities. Within several hours, the rash acquired the character of vesicles with transparent contents.

In 38 patients (50%), exanthema was accompanied by the appearance of enanthema, which was accompanied by sore throat, burning and pain during swallowing. In 5 patients (6.6%) blepharoconjunctivitis was diagnosed, accompanied by lacrimation, pain and pain in the eyes. In all patients, on the 3-4th day from the onset of the first elements, the rash became polymorphic - maculopapular-vesicular, then gradually began dry out to form crusts. In patients with chickenpox, the crusts completely disappeared on days 9-11.

In 27 patients (35.5%), the rash was extremely abundant, almost completely covering the face and torso. A distinctive feature of the rash was rapid and profuse pustulation. In patients, pustulization was accompanied by a significant (39-40°C) rise in temperature; in 7 patients (9.2%) pyoderma was so severe that it required additional antibiotic therapy. In all patients, the disease was accompanied by lymphadenopathy with a predominant enlargement of the submandibular and posterior cervical lymph nodes. The hemogram of the examined patients showed normocytosis with lymphocytosis (from 50 to 68%). Severe chickenpox was recorded in 8 patients (10.5%) and was associated with complications, in particular, pneumonia developed in two patients during the acute period of chickenpox.

The severe course of the disease was characterized by high fever (39-40 °C) from the first days of the disease, severe intoxication, manifested by headache, dizziness, nausea, repeated vomiting, sleep disturbance, severe weakness, lack of appetite, as well as an extremely profuse rash, usually with pustulization. A severe course of the disease was observed in individuals with a burdened premorbid background (diabetes mellitus, bronchial asthma).

Conclusions

1. Thus, chickenpox in adults is characterized in most cases by a more severe course, in contrast to children.
2. In adults, chickenpox begins with a long prodromal period and severe symptoms of intoxication.
3. Chickenpox in adults is characterized by a profuse polymorphic rash, with a duration of rashes from 5 to 8 days, while in 64.5% of patients the rash was accompanied by itchy skin.
4. In 35.5% of patients, the rash due to chickenpox was pustular in nature.
5. In 50% of cases, enanthema with scleritis and conjunctivitis was observed.
6. Severe chickenpox is accompanied by the development of complications (pneumonia, encephalitis, hepatitis, etc.).

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