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FEATURES OF THE CLINICAL AND EPIDEMIOLOGICAL COURSE OF MEASLES AT THE CURRENT STAGE

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ANNOTATION

During the implementation of the measles elimination program in the Andijan region, positive results were achieved. However, measles remains a pressing problem among the unvaccinated population, especially among adults, the clinical course of the disease may be accompanied by intestinal complications and other symptoms that complicate prehospital diagnosis.

Key words

measles, morbidity, Belsky-Filatov-Koplik spots, hepatomegaly.

Introduction. The World Health Organization (WHO) characterizes measles as a highly contagious disease caused by a virus from the paramyxovirus family [1]. Measles has always been considered a serious and dangerous viral infection, as it remains in the modern period. The first live measles vaccine was invented in 1954 by John Enders and Thomas Peebles, and before its widespread use, measles was the source of devastating epidemics throughout the world [2].

Mass vaccination had a significant impact on the epidemiological situation; by 2009, the incidence decreased and amounted to 0.07 cases per 100 thousand population [7]. In 2012, WHO adopted a strategic plan with the goal of eliminating measles and rubella in the European Region by 2020 [3]. Due to changes in the epidemiological situation and due to the high contagiousness of the measles virus, the plan for eliminating this disease turned out to be difficult to implement [4].

Despite the fact that measles is often considered a childhood infection [5], the adult population is equally at risk of infection. According to WHO, the adult population experiences measles much more severely than children, with a higher incidence of complications and deaths [6].

That is why the ability to timely suspect and diagnose this disease is necessary not only for pediatricians, but also for adult doctors.

Purpose of the study: to study the clinical and epidemiological features of measles among the adult population during the period of increasing incidence in the Andijan region.

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Materials and methods of research. The study included 30 patients over 18 years of age with a clinical diagnosis of measles admitted to the infectious diseases hospital of the Andijan region in 2023–2024. The patients' medical history (including epidemiological), the results of daily examinations from the moment the patient was admitted to the emergency department until discharge from the hospital, the severity of clinical symptoms, and the results of laboratory data were assessed prospectively. The diagnosis of "Measles" was established on the basis of clinical manifestations and serological studies using the IgM ELISA method.

Statistical data processing was performed using the Microsoft Excel 2016 and SPSS Statistica 20.0 application package. Incidence rates and standard errors of coefficients (M±m) were calculated according to generally accepted methods. The reliability of the compared values in independent samples was assessed using the nonparametric Mann–Whitney test. At a significance level of $p < 0.05$, the differences were considered statistically significant.

The results of the study are discussed. The incidence of measles in the Andijan region has decreased significantly. It should be noted that, according to reports, measles vaccination coverage rates during the specified period in the target groups of children and adults in all territories where they have not been registered for more than 10 years.

An important characteristic of measles incidence in the modern period is the distribution of patients depending on their vaccination status. It was revealed that in 2023–2024. among patients with a laboratory-confirmed diagnosis of measles, patients who have not been vaccinated against

of this infection, and persons with unknown vaccination status, the share of which in total reached 74.5%. The proportion of those vaccinated once and twice against measles averaged 5.2% and 19.9%, respectively. According to the results of this study, none of the patients had controlled measles IgG titers and had not been revaccinated in the last 10 years.

Analysis of patients included in the study who were admitted to the hospital on average 5±2.3 days of illness. The diagnosis of "measles" at the prehospital stage was established only in 5 cases (16.7%). The majority were hospitalized with a diagnosis of acute respiratory viral infection with exanthema. Upon admission to the hospital by emergency room doctors. In 100% of cases, the infection occurred in a moderate form, regardless of the variants of the isolated virus genotypes. Not all subjects had a typical course of measles: for example, 36.7% developed symptoms of diarrhea. The catarrhal period was characterized by the presence of fever and intoxication syndromes, damage to the upper respiratory tract and conjunctiva. The average duration was 3.82±1.3 days. Intoxication syndrome manifested itself in 100% of cases: patients complained of headache, weakness, muscle pain and

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joints, nausea, loss of appetite. In the vast majority of cases (86.7%), febrile fever was observed lasting from 1 to 10 days (average 3.88 ± 1.7 days). The syndrome of catarrhal lesions of the mucous membranes of the upper respiratory tract was manifested by the development of pharyngitis (100%), conjunctivitis (46.7%), tracheitis (43.4%) and rhinitis (20%).

In 76.7%, the catarrhal period was accompanied by lymphadenitis syndrome with predominant damage to the cervical, occipital and mandibular lymph nodes. Their pain was noted in 13.4% of patients.

Belsky–Filatov–Koplik spots are described in 80% of cases, which is consistent with the data of Ukrainian researchers for 2018 [15]. Noteworthy is the persistence of enanthema for 3±1.2 days after the appearance of skin rashes (in 36.7%). Absence in 20% of cases of important diagnostic symptoms of the disease (such as Belsky–Filatov–Koplik spots) due to late seeking medical help is a factor making it difficult to timely

The period of rash was characterized by the appearance of a typical maculopapular rash against the background of the most pronounced catarrhal phenomena. Features of this period include the tendency of the rash to merge (in 50%) and the presence of itching (in 13.4%) against the background of an uncomplicated allergic history. The duration of the rash period varied from 4 to 10 days, with an average of 7.8±1.2, which exceeds that in children.

The final period of measles is the period of pigmentation [16]. In the study group of patients, a period of pigmentation was detected in 73.4% of cases. The absence of a period of pigmentation in 26.6% of cases was an atypical variant of the clinical course of this disease in adults. Moreover, in half of the patients, the fading of the rash was accompanied by fine-plate peeling.

The most common complications of measles in adults include otitis media, pneumonia, exacerbation of chronic tonsillitis, lacunar tonsillitis, and meningoencephalitis [15]. However, in the current study they were not found among the identified complications. In some patients (87%), measles was accompanied by an increase in transaminase activity and the development of hepatomegaly (43.4%).

Of all patients included in the study (n=30), 53.4% were noted to have concomitant pathologies, such as chronic pyelonephritis, chronic bronchitis, viral hepatitis and non-infectious skin diseases. Exacerbation of concomitant pathology occurred in 13.4% of patients (chronic bronchitis, bronchial asthma, and limited neurodermatitis).

Conclusion. In the current epidemiological situation in the Andijan region, measles is becoming a pressing problem among the unvaccinated population, especially among adults. At the present stage, there is a high frequency of atypical

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course of the disease: the absence of a pathognomonic symptom (Belsky-Filatov-Koplik spots) in a quarter of the observed patients, hepatomegaly in 43.4%, increased transaminase activity in 87% and the development of diarrhea syndrome in 36.7%. This complicates the timely diagnosis of the disease at the prehospital stage, leads to a discrepancy between admission and discharge diagnoses in 53.4% of cases, causes the unreasonable prescription of antibacterial agents and the untimeliness of anti-epidemic measures.

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