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FEATURES OF MEASLES COURSE IN ADULTS AT THE MODERN STAGE

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Measles is an acute infectious disease caused by the measles virus, a member of the Paramyxoviridae family. Since its identification in the late 1950s, measles has been one of the most widespread infectious diseases, however, extensive vaccination programs have significantly reduced the number of measles cases [2;5;9;11]. Nonetheless, in recent decades, some countries, including Uzbekistan, have seen a slight increase in incidence, underscoring the relevance of this topic.

According to the World Health Organization (WHO), measles remains a pressing issue in countries with low vaccination rates [3;5;9;10]. In recent years, there has been an increase in cases, particularly in Europe and North America. This trend is partly explained by vaccination refusals in certain population groups, leading to infection outbreaks.

In Uzbekistan, measles incidence has also been rising in recent years. This increase has highlighted the importance of studying the characteristics of measles in adults, given the growing number of unvaccinated individuals and the potential spread of the virus to age groups lacking immunity.

Unlike children, in whom the disease typically has a milder course, measles in adults can be more severe, with complications and a poorer prognosis [6;7].

Purpose of the Study: to examine the clinical and laboratory features of measles in adults.

Materials and Methods. In 2024, a clinical and laboratory study was conducted on 208 measles patients, including 56 children and 152 adults. All patients were hospitalized in the infectious disease unit of the multidisciplinary clinic of the Tashkent Medical Academy from February to December 2024.

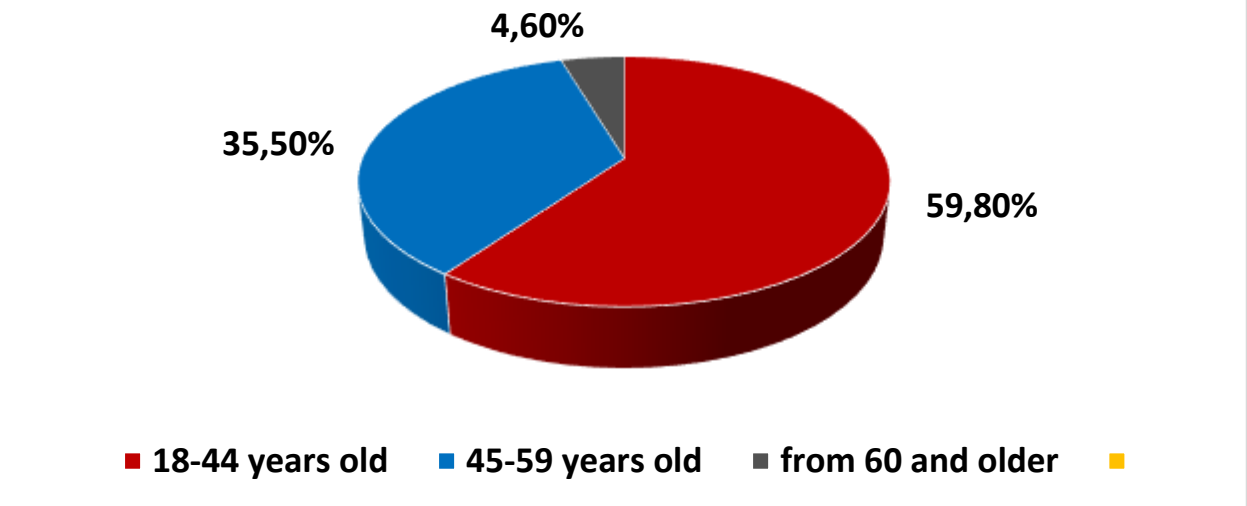

Fig.1. Age distribution of patients (%).

A comprehensive research approach was used, including clinical, serological, epidemiological, and statistical methods.

A monitoring card was filled out for each patient, documenting clinical and laboratory data over time. Measles severity was determined based on the intensity of intoxication symptoms and fever.

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The level of measles antibodies (IgM and IgG) in serum samples from patients was measured using enzyme-linked immunosorbent assay (ELISA). All data were processed using variation statistical methods.

Research Results. Epidemiological history showed that only 40.7% (n=62) were vaccinated against measles, 20.3% (n=31) were unvaccinated, and 38.8% (n=59) were unaware of their vaccination status. All patients (100%) confirmed contact with measles cases.

It was found that measles in adults had a more pronounced clinical presentation and was more severe than in children. Among patients, 80.9% had a moderate form of measles (n=123), and severe cases (n=20) were more common in adults than in children (13.1% vs. 8.9%, p<0.02). Mild cases accounted for only 5.9% in adults compared to 35.7% in children (p<0.001). Notably, mild cases were registered in patients under 30 years old.

All adult patients showed a typical clinical picture of measles. Analysis of symptoms by age revealed less pronounced catarrhal syndrome in adults compared to children during the catarrhal stage. However, during the rash stage, there were no significant differences in the severity of catarrhal symptoms between adults and children. Adults exhibited later onset and gradual development of catarrhal manifestations.

Compared to children, measles in adults presented with more pronounced intoxication and fever. Adults were more likely to have enlarged submandibular lymph nodes (64.4% vs. 25%, p<0.002), confluent rashes (94.0% vs. 69.6%, p<0.01), and hemorrhagic components (16.0% vs. 25.5%, p<0.001).

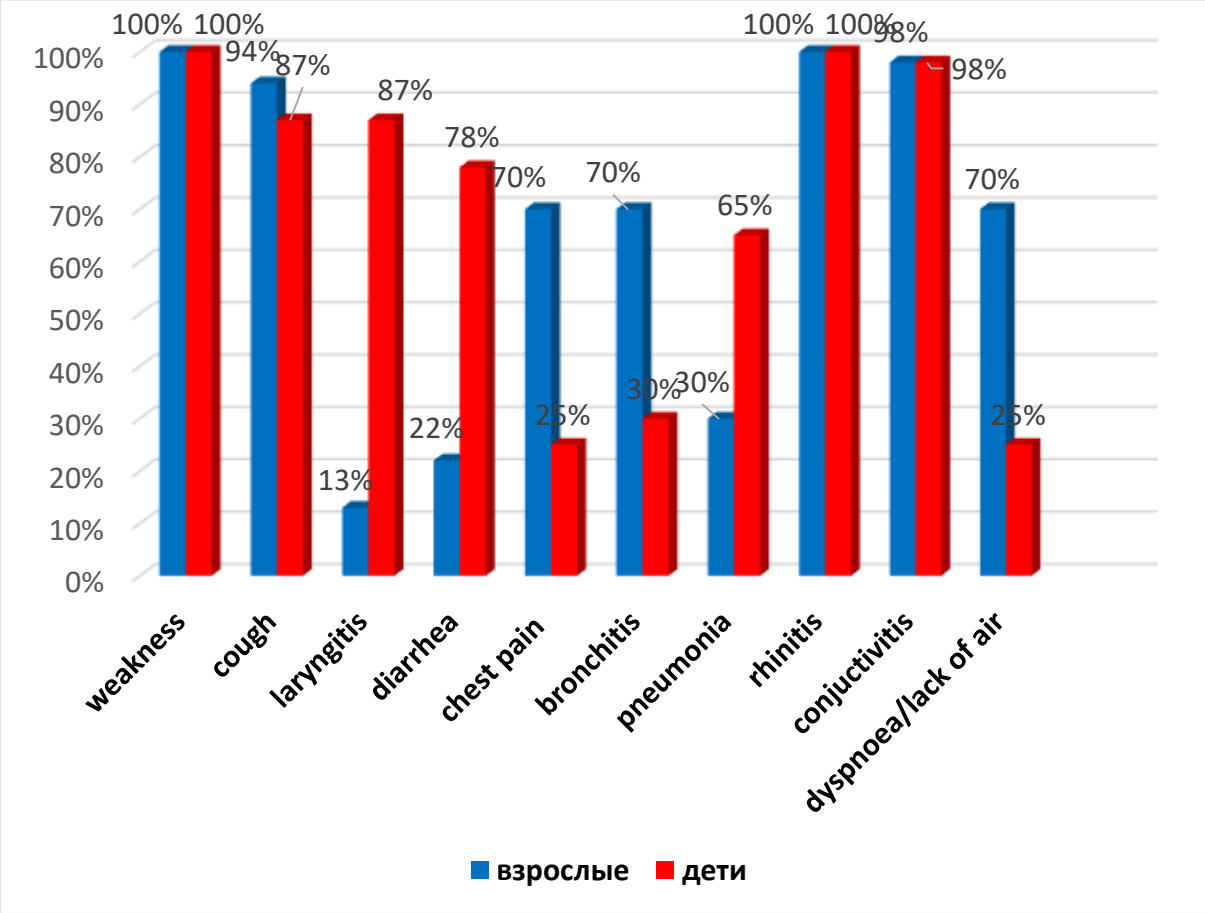

Fig.2. Comparative clinical manifestations of measles, %

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Thus, measles in adults typically progresses with distinct symptoms and the characteristic stages of the disease. Moderate forms predominated, with an observed trend toward an increase in severe forms among hospitalized adults in recent years. The severity of the disease is associated with pronounced intoxication.

The proportion of mild cases has increased among patients under 30, likely due to a higher number of vaccinated individuals. However, this hypothesis lacks strong evidence since most adult patients did not have vaccination records, and conclusions were inferred based on their age.

In terms of complications, bronchitis was the leading respiratory complication, occurring in 69.7% of cases.

ELISA showed that anti-measles IgM was detected in 93.4% of patients during the acute stage (1-6 days from rash onset). During the convalescent stage, specific IgM was present in 98.0% of patients.

Conclusions. The source of infection remains measles patients, with transmission occurring in susceptible groups during the catarrhal phase of the initial case.

In the context of long-term vaccination efforts, measles in adults is more severe than in children. The proportion of severe cases was 13.1% in adults compared to 8.9% in children, while mild cases were significantly less frequent (5.9% vs. 35.7%).

Measles diagnosis in adults relies on clinical data, epidemiological history (contact with patients or travel to endemic areas), and laboratory tests (antibody or viral RNA detection).

Additionally, measles in adults may result in prolonged recovery and chronic fatigue, negatively impacting quality of life.

References

1. Golovko M.G., Poryadina G.I., Larina V.N. **Measles in the practice of a polyclinic therapist** // Medical Practice. 2014. No. 4. Pp. 10-16.

2. Dementyev A.S. (ed.). **Airborne infections. Medical care standards.** M.: GEOTAR-Media, 2016. 448 p.

3. Measles. World Health Organization. http://www.who.int/ru/news-room/fact-sheets/detail/measles.

4. Lobzin Yu.V. **Clinical recommendations (treatment protocol) for providing medical care to children with measles.** SPb, 2015. Sections 4.7, 4.11.

5. Lobzin Yu.V. **Guide to Infectious Diseases.** SPb, 2000. P. 93.

6. Ponezheva Zh.B., Arakelyan A.K., Kozlova M.S., Vdovina E.T. **Measles in adults** // Epidemiology and Infectious Diseases: Current Issues. 2018. Pp. 50-55.

7. Prevention of measles, rubella, mumps. Sanitary and epidemiological rules SP 3.1.2952-11, 2012.

8. Tsvirkun O.V., Gerasimova A.G., Tikhonova N.T., Ezhlova E.B., Melnikova A.A., Dubovitskaya E.L., Orlova O.S., Basov A.A., Frolov R.A. **Measles incidence in different age groups during infection elimination** // Epidemiology and Vaccination. 2017. Pp. 18-25.

9. Yushchuk N.D. **Viral Diseases. Study Guide.** M.: GEOTAR-Media, 2016. 640 p.

10. Karen Gill. **Understanding the causes of measles.** MD — Medical News Today, 15.05.2017. https://www.medicalnewstoday.com/articles/37135.php.

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11. Honor Whiteman. **Warning about the dangers of measles may sway vaccine skeptics.** Published by Medical News Today, 4 August 2015. https://www.medicalnewstoday.com/articles/37135.php.