ISSN: 2181-3906 2024

International scientifijournal
«MODERN SCIENCE AND RESEARCH»
VOLUME 3 / ISSUE 4 / UIF:8.2 / MODERNSCIENCE.UZ

FEATURES DURING MEASLES IN CHILDREN AT THE PRESENT STAGE

Turazoda Kumushkhon Botirbek qizi
Yuldasheva Sogdiyona Utkirjon qizi
Abdullayeva Sabohat Akmal qizi
students of the 507th group of treatment faculty
of the Tashkent Medical Academy.
Aladova Lyudmila Yurevna
Supervisor.

https://doi.org/10.5281/zenodo.11181816

Abstract. *This article deals with important statistics about measles, its special features and development in children. Furthermore, brief historical data and clinical manifestation were noted.*

Key words: *infectious diseases, immunoglobulin, nasopharynx, measles-specific, rheumatological diseases, non-coding region, symptomatic therapy.*

ОСОБЕННОСТИ ТЕЧЕНИЯ КОРИ У ДЕТЕЙ НА СОВРЕМЕННОМ ЭТАПЕ

Аннотация. *В статье представлены важные статистические данные о кори, ее особенностях и развитии у детей. Кроме того, были отмечены краткие исторические данные и клинические проявления.*

Ключевые слова: *инфекционные заболевания, иммуноглобулин, носоглотка, коревые специфичные, ревматологические заболевания, некодирующая область, симптоматическая терапия.*

Measles is a viral disease with a high potential for spread and the development of complications in about 30% of cases, the main contingent of patients are children under the age of 5 years, mainly with a nutritional deficiency and a weakened immune system. At the present stage, measles remains a significant morbidity and remains a significant cause of death worldwide, especially among young children, due to its widespread spread, even despite the availability of a safe and effective vaccine. Measlesin in child is one of the most common infectious diseases of childhood. It is common in the age group of 3 to 5 yrs. and rare during first 6 months of life be-cause of passive immunity transferred from mother. Though it is a self-limiting disease rate of complications and mortality is quite high. Complications are more common malnourished children which can prove fatal. The post measles effect may linger on for several weeks after the recovery.

It may present in form of loss of appetite, failure to thrive, increased susceptibility to infections. With the availability of vaccine and reasonably effective implementation of vaccination programme in last 30 years the incidence of measles is declining, but still during winter season many cases are seen in slums and thickly populated area. Frequent observation, good nursing care and early detection of complications can decrease the mortality due to measles[1].

The most common confirmation of measles is carried out by a laboratory method based on a positive serological study for antibodies to immunoglobulin M (IgM) to measles with a four fold or more increase in the titer of specific IgG in dynamics, isolation of the virus from cultures of mononuclear cells of blood, urine, smears from the conjunctiva or nasopharynx and detection of measles virus RNA using reverse transcriptase polymerase chain reaction (RT-PCR) in blood samples, a smear from the pharynx and nasopharynx or urine. Unfortunately, measles specific IgM

antibodies can be detected only 4 or more days after the rash appears, which can lead to false negative results if the examination is carried out earlier. Approximately 75% of patients with measles-specific IgM antibodies are detected within the first 72 hours after the rash appears, but almost all affected children will have measles-specific IgM detected 96 hours after the rash appears. In addition, false positive results can sometimes occur in patients with infectious mononucleosis, rubella, parvovirus infection B19 and rheumatological diseases. Testing of measles virus RNA using RT-PCR is more specific and gives a positive result before the characteristic IgM antibodies to measles appear, and allows identifying the genotype[2]. The clinical picture of measles, depending on the seasonality and geographical location, can simulate the manifestations of other viral diseases. It should be emphasized that MeV infection in people with weakened immunity may not cause the typical symptoms of measles, while often causing severe outcomes of the disease, with the development of pneumonia. Virological surveillance data show a decrease in the overall genetic diversity of measles, since the number of genotypes in the examined patients decreased. Sequencing of larger fragments of the MeV genome makes it possible to increase the resolution of MeV transmission routes, including the difference between several import sources of the same genotype and jointly circulating lines in countries with an endemic virus. Areas of interest for extended sequencing include the non-coding region between the matrix (M) and F genes, as well as the entire genome, which can be sequenced by Sanger methods or next-generation methods.

According to new statistics, MPC TMA number of patients diagnosed with Measles treated in 2023:

- February - 3 patients
- March - 17 patients
- April - 4 patients
- May- 37 patients
- June - 47 patients
- July - 70 patients
- August - 120 patients
- September - 153 patients
- October - 228 patients
- November- 217 patients
- December - 266 patients

Total: 1162 patients 103 of them were vaccinated.

The information obtained from MF-NCR provides phylogenetic trees with a topology similar to that obtained by sequencing the entire genome, demonstrating that this region is useful for improving molecular surveillance of measles. Treatment In our country, the treatment of children with measles is carried out in accordance with the Clinical Protocol "Diagnosis and treatment of measles in children" of the Republic of Kazakhstan №. 4 of June 9, 2016. The basis is symptomatic therapy, which includes the use of antipyretics, vitamins, preventive measures, proper and enhanced nutrition [44]. In the case of the addition of secondary bacterial flora, treatment is carried out with appropriate antibiotics. According to the 2017 Cochrane Systematic Review, in the treatment of patients with measles, vitamin A should be added orally once a day for 2 consecutive days in age-related doses (50,000 IU, 100,000 IU and 200,000 IU for infants[3].

The first clear description of measles clinical signs was made in the IX century by Persian doctor Rhazes (Abū Bakr Muhammad ibn Zakariyyā al-Rāzī). In the XVII century measles signs were described by the English doctors Thomas Sydenham (1624-1689) and Richard Morton (1637–1698). In 1895 the famous Russian pediatrician N.F. Filatov (1847-1902) described 4 periods in the development of measles and termed them latent (incubation), catarrhal, rash and

desquamation (pigmentation). In 1911 A. Andersen and D. Goldberg proved a viral etiology of the disease, and in 1954 D. Enders and T.K. Peebles isolated a causative agent. Treatment (according to the Order of the Ministry of Public Health of Ukraine №354 dated 09.07.2004) is administered mainly at home. Non-complicated, mild, moderate forms of measles and atypical forms of the disease do not require medical treatment. Patients should follow bed regimen during the feverish period, hygienic measures of the oral cavity and eyes, living quarters should be aired. In case of running nose vasoconstrictor drugs are used, in case of cough – mucolytic agents. In the USA vitamin A administration for children suffering from measles was proved to reduce severity of the disease and risk of complications. Vitamin A is recommended for children older than 6 months of age in combination with vitamin C. complications are treated according to the appropriate protocols of the Ministry of Public Health of Ukraine. According to the international guidelines treatment of measles is essentially supportive care with maintenance of good hydration and replacement of fluids lost through diarrhea or emesis. Intravenous (IV) rehydration may be necessary if dehydration is severe. Vitamin A supplementation, especially in children and patients with clinical signs of vitamin A deficiency, should be considered.

Postexposure prophylaxis should be considered in unvaccinated contacts; timely tracing of contacts should be a priority. Patients should receive regular follow-up care with a primary care physician for surveillance of complications arising from the infection Antiviral Therapy. Measles virus is susceptible to ribavirin in vitro. Although ribavirin (either IV or aerosolized) has been used to treat severely affected and immunocompromised child with acute measles no controlled trials have been conducted; ribavirin is not approved by the US Food and Drug Administration (FDA) for this indication, and such use should be considered experimental[4]. Vitamin A supplements have been associated with reductions of approximately 50% in morbidity and mortality and appear to help prevent eye damage and blindness. Because vitamin A deficiency is associated with severe disease from measles, The World Health Organization recommends all children diagnosed with measles should receive vitamin A supplementation regardless of their country of residence, based on their age, as follows:

- Infants younger than 6 months – 50,000 IU/day PO for 2 doses
- Age 6-11 months - 100,000 IU/day PO for 2 doses
- Older than 1 year - 200,000 IU/day PO for 2 doses
- Children with clinical signs of vitamin A deficiency.

The first 2 doses as appropriate for age, then a third age-specific dose given 2-4 weeks later Indications for admission. Patients of their first year of life, those with severe forms of measles, complications, and according to epidemic indications are hospitalized. Measures concerning individuals in contact. Individuals who were in contact with patients at the age from 1 to 30, non-vaccinated, who did not suffer from measles before, and do not have contraindications against vaccination, should be vaccinated no later than 72 hours from the moment of contact with an infected person. Vaccination made later than 72 hours after the contact can be not only ineffective but harmful. Children at the age to 1 year of life, those with immune deficiency conditions, contraindications for vaccination with live vaccines, pregnant women being in contact with measles, normal immunoglobulin is injected in the dose of 0,25 ml/kg of the body weight no later than 5 days since the moment of contact. Quarantine is placed on contact children in children

groups and establishments from 9 to 17 days from the moment of the contact, and those children who received immunoglobulin – till 21 days. Patients should be isolated from the onset of the disease to the 5th day of rash, in case of complications – till the 10th day of rash appearance[5].

REFERENCES

1. Measles in child. Measles in child: | by Dailyaurvedic | Medium
2. Update of the nomenclature for describing the genetic characteristics of wild-type measles viruses: New genotypes and reference strains. Wkly. Epidemiol. Rec. 2003; 78:229–232.
3. Bichon A, Aubry C, Benarous L, Drouet H, Zandotti C, Parola P, Lagier JC. Case report: Ribavirin and vitamin A in a severe case of measles. Medicine (Baltimore). 2017;96(50):e9154. doi: 10.1097/MD.0000000000009154.
4. Infectious diseases in children. Ed. Professor S.O. Kramar`ov and Professor O.B. Nadragy` / K.: Medicine. - 2010 - 392 pp.
5. Марусык У.И, Гарас Н.Н. MEASLES IN CHILDREN. The scientific heritage No 33 (2019)
6. Qizi, Y. L. U. (2023). Reform in the Education System of the Moderns of Turkestan. BEST JOURNAL OF INNOVATION IN SCEINCE, RESESRCH AND DEVELOPMENT, 2(10), 285-288.
7. Qizi, Y. L. U. (2023). HISTORICAL-SCIENTIFIC HERITAGE OF ISHAK KHAN IBRAT. THE MULTIDISCIPLINARY JOURNAL OF SCIENCE AND TECHNOLOGY, 3(2), 107-110.
8. Yusupova.L. (2023). Shayboniylar Davrida Buxoro Xonligining Tashqi Siyosiyati. Journal of innovation Creativity and Art, 2(1), 89-90.
9. Qizi, Y. L. U. (2024). O'ZBEK JADID AYOLLARI- JASORAT TIMSOLI.CURRENT ISSUES OF BIO ECONOMICS AND DIGITALIZATION IN THE SUSTAINABLE DEVELOPMENT OF REGIONS, 779-781.
10. Qizi, Y. L. U. 2024). Humanitarian Ideas in the views of the Jadid Englightenment.Central Asılan Journal of Theoretical and Applied Sceinces, 5(2) 10-13.
11. Iskandar, O. (2022). OPPORTUNITIES FOR THE DEVELOPMENT OF PLIGRIMAGE TOURISM IN OUR REPUBLIC.CONTEMPOPARY ART AND CULTURE,(ISSUE 11),47-49.
12. Qizi, Y. L. U. (2024). THE ACTIVITIES OF UBAYDULLOKHOJA ASADULLOKHOJAYEV, AN EARLY UZBEK LAWYER, IN THE JADIDIST MOVEMENT. International Journal Of History And Political Sciences, 4(03), 48-50.
13. Yusupova, L. (2024). THE ROLE OF MUNAVVARQORI ABDURASHIDKHANOV IN THE JADIDIST MOVEMENT. Science and innovation, 3(C1), 94-97.
14. Yusupova, L. (2023). JADIDCHILIK HARAKATI VA JADID ADABIYOTINING YUZAGA KELISHI. Наука и технология в современном мире, 2(20), 92-94.
15. Laylo, Y. (2023). XIVA XONLIGINING ASOSIY SAVDO MARKAZLARI VA TASHQI SAVDO-TIJORAT ALOQALARI. Journal of Universal Science Research, 1(5), 385-389.