

## MEASLES BOZMOJHOCTI TREATMENT OPTIONS AT THE PRESENT STAGE

*Abdulloev Mukhridin Ziedulloevich* <https://orcid.org/0009-0005-2297-5516>

*Bukhara State Medical Institute named after Abu Ali ibn Sina, Uzbekistan,*

*Bukhara, A. Navoi St. 1 Phone number: +998 (65) 223-00-50 e-mail:*

*[abdulloyev.muhridin@bsmi.uz](mailto:abdulloyev.muhridin@bsmi.uz)*

### **Resume.**

A clinical follow-up and treatment of 72 children aged from 5 months was performed. Up to 3 years of age with measles. 68 people (94.4%) were diagnosed with a typical moderate form, 4 people (5.6%) with an atypical (mitigated) mild form of the disease. All the children were not vaccinated against measles. A typical moderate form of measles was characterized by a cyclical course with a change in classical periods and the presence of characteristic clinical syndromes. Pathognomonic symptoms were revealed: Belsky-Filatov-Koplik spots (67.7%), stage rash (100%), stage pigmentation (100%). Etiotropic therapy was performed with VIFERON. The rapid disappearance of intoxication and normalization of body temperature, an early decrease in the severity and duration of catarrhal syndrome, a decrease in the severity and frequency of complications, and the absence of ARVI stratification were revealed.

**Key words:** measles, young children, clinic, modern therapy, VIFERON.

Measles is an acute infectious contagious disease, with the possibility of infection at different ages. At all times, the most severe cases of measles were observed in children of early and puberty age. Complications were usually associated with the development of pneumonia, severe keratitis, the addition of infectious diseases such as diphtheria, chickenpox and others that aggravate the course of measles.

Since 1996, in the fight against measles in Russia, Professor V. V. Malinovskaya has been associated with the creation and introduction into health care practice of the combined antiviral immunomodulatory drug VIFERON-human recombinant interferon alpha 2b in combination with antioxidants (vitamins C and E) in the form of suppositories, which allows effective therapy of infectious pathology in pediatric and obstetric practice [8 - 11].

Currently, interferon alpha is included in the standard of care for children with measles. The aim of our work was to study the clinical picture of measles in young children and evaluate the effectiveness of modern therapy with the inclusion of the antiviral immunomodulatory drug VIFERON. Materials and methods of research[4].

We observed 72 children aged 5 months to 3 years with measles in the BOIB "Bukhara Regional Infectious Diseases Hospital" in Bukhara. Children of the first year of life made up 22 people (30.6%). Diagnosis of measles was based on the patient's

history, medical history, and careful recording and analysis of all clinical symptoms during the entire follow-up period. Special attention was paid to the identification of pathognomonic symptoms for measles: the presence of Belsky - Filatov-Koplik spots, stages of rash and pigmentation. For laboratory confirmation of measles, specific antibodies (Ig M) were determined in the blood in accordance with sanitary regulations. Children underwent clinical tests: blood, general urinalysis, according to indications-a biochemical blood test (determination of ALT, AsT, total bilirubin and its fraction, total protein and protein fractions, creatinine, urea). All patients, along with diet, regimen, and care, received complex drug therapy. Etiotropic treatment included the use of VIFERON-recombinant human interferon alpha 2b in combination with vitamins C and E. [1-3].

### **Results and discussion**

We identified the sources of infection in all the children. The majority: 66 people (91.6%) were found to have an in-hospital source of measles in the BOIB "Bukhara Regional Infectious Diseases Hospital" in Bukhara, 4 people (5.6%) had contact with a measles patient during a vacation abroad, and 2 people (2.8%) had contact on the landing of an apartment building.

Analysis of the vaccination history showed that 100% of children were not vaccinated against measles, while 22 people (30.6%) were not vaccinated by age, 38 people (52.8%) had medical withdrawals from preventive vaccinations, and 12 people (16.6%) had parental refusals to vaccinate.

The majority of children - 42 (58.3%), who developed measles, were registered at the dispensary for various somatic diseases: 22 (52.4%) - for hydrocephalus and convulsive syndrome, 10 (23.8%) - for bronchial asthma and atopic dermatitis, 6 (14.3%) - for hydrocephalus, 4 (9.5%) — thrombocytopenic purpura and anemia.

The overwhelming majority of children with measles - 64 (88.9%) were admitted to specialized departments of infectious diseases hospitals in the first week of illness: 14 (19.5%) on days 1-3. catarrhal period of the disease, 50 (69.4%) - on the 4th-6th days. diseases, 8 (11.1%) - at a later stage (7-12 days). diseases). 68 (94.4%) young children with measles were diagnosed with a typical moderate form. Atypical (mitigated) measles was detected in 4 people (5.6%) who received normal donor human immunoglobulin during the incubation period.

The clinical picture of typical measles in 68 young children was characterized by a cyclical course with a change of four periods - incubation, initial (catarrhal), height (rash) and convalescence (pigmentation).

The incubation period for typical measles lasted from 9 to 17 days, averaging  $12 \pm 2$  days.

The catarrhal period of measles lasted from 1 to 3 days. It was characterized by increasing intoxication syndrome, increased body temperature, severe catarrhal

inflammation of the mucous membranes of the upper respiratory tract and conjunctiva of the eyes. Fever in 44 people (64.7%) ranged from 38.6-39.2 °C. In 24 people (35.3%), the temperature increased to 38.0-38.5 °C. Intoxication syndrome was characterized by decreased appetite (78.2%), weakness (76.4%), sleep disturbance (75.3%), malaise and headache (70.3%), lethargy and tearfulness (92%). Catarrhal syndrome was observed in 100% of patients and was characterized by dry cough, nasal congestion, moderate mucosal discharge from the nasal passages, and slight conjunctivitis. The face of the sick child acquired a characteristic appearance-puffy, swollen eyelids, eyes "red", photophobia and lacrimation appeared, later the cough became more persistent, barking. Moderate hyperemia of the mucous membranes of the oropharynx (100%) and enanthema on the soft palate in the form of large spots of dark red color (22.2%) were detected. In 18 people (26.5%), dysfunction of the gastrointestinal tract (frequent loose stools without pathological impurities) was detected due to damage to the intestinal mucosa by the measles virus. 46 people (67.6%) were found to have Belsky-Filatov-Koplik spots (a pathognomonic symptom that makes it possible to diagnose measles in the early stages of the disease). They are small grayish-whitish areas of necrosis, surrounded by a corolla of hyperemia, localized at the molars, on the mucous membrane of the cheeks, lips, gums.

The rash period started on average in 2 days. from the onset of the disease and was characterized by the appearance of exanthema against the background of the most pronounced fever, intoxication and catarrhal syndrome. Fever syndrome: body temperature in 2/3 of patients was febrile, in 1/3 - subfebrile. As a rule, the appearance of a rash was accompanied by a new rise in body temperature. The intoxication syndrome was most pronounced in the first two days of the rash period and was characterized by lethargy, adynamic patients, refusal to eat and drink. 18 people (26.5%) had nausea and single vomiting. Catarrhal syndrome was observed in all patients with cough, conjunctivitis and rhinitis. Cough is frequent, annoying, sometimes painful, in 22 (32.4%) - barking with hoarseness of voice. For the first 1-2 days of the rash period, Belsky-Filatov-Koplik spots, spotted enanthema, and desquamation of the gum mucosa epithelium persisted. Exanthema syndrome had characteristic features, the most important of which is the phasing of the spread of the rash (a pathognomonic symptom of measles). The first elements of the rash appeared in 60 people (88.2%) on the bridge of the nose and face, in 4 people (11.8%) behind the ears. During the first day, the rash spread to the face, neck, upper chest and shoulders. In the future, (2nd day. the rash completely covered the torso and spread to the proximal parts of the arms, and on days 3-4 to the distal parts of the arms and lower extremities. According to the morphology of the elements, the rash in 66 people (96%) of patients was maculopapular, in 2 people (4%) - large and medium-sized spots with localization on the extensor and flexor surfaces of the extremities. In 64 people (94%),

the rash was abundant, in 4 people (6%) - scanty; the skin background remained mostly unchanged (80%). The duration of the rash period ranged from 2 to 4 days. The pigmentation period started as early as 3 days. during the rash period and occurred in stages (pathognomonic symptom) in the same order as the rash appeared. Elements of the rash in patients with measles began to darken, turn brown, due to the formation of hemosiderin. The pigmented rash did not disappear when the skin was pressed and stretched; in 10 people (14.7%), pigmentation ended with a slight pityriform peeling of the skin. The phasing of the appearance of the rash and its transition to pigmentation determined the nature of exanthema on the 3rd-4th day. during the rash period: on the face and upper body, the rash acquired a purplish-bluish hue, with separate pigmented elements, and on the hands and especially on the legs, the rash was still bright with pronounced papulosity. The peculiarity of the dynamics of measles rash provides a practical doctor with significant assistance in conducting differential diagnosis with other diseases accompanied by exanthema syndrome. With a smooth course of the disease (86%), the condition of sick children became satisfactory, body temperature normalized, appetite and sleep were restored. Non-smooth course of measles was detected in 14% of sick children. The non-smooth course of the disease was caused by complications (obstructive bronchitis, stenosing laryngotracheitis, acute left-sided lower-lobe pneumonia, lacunar angina, etc.) and exacerbation of concomitant somatic diseases (hydrocephalus, bronchial asthma, anemia, etc.).

Children with measles received comprehensive etiopathogenetic treatment. During the entire period of fever and in the first two days after normalization of body temperature, bed rest was prescribed. Great attention was paid to the patient's hygienic condition. The diet was prescribed taking into account the age of the child, the severity and period of the disease, and the presence of concomitant pathology. In the acute period of the disease - dairy food, mechanically and chemically sparing, enriched with vitamins, as well as plentiful drinking. All children received a complex antiviral and immunomodulatory drug (VIFERON) containing recombinant human interferon alpha 2b and antioxidants (tocopherol acetate and ascorbic acid) as a means of etiotropic therapy. VIFERON in the form of suppositories was prescribed at a dose of 150 thousand mg. IU 2 times a day for 5 days, VIFERON ointment/VIFERON gel was used to lubricate the oropharyngeal mucosa and skin areas with exanthema. Modern etiotropic therapy caused a rapid disappearance of symptoms of intoxication and fever, a rapid decrease in the severity and duration of catarrhal syndrome, for 2-3 days or more. Rapid normalization of hemogram parameters was also noted. No side effects of VIFERON were observed. For the treatment of conjunctivitis, ophthalmoferon was used (in the acute stage, 1-2 drops in each conjunctival sac 4-6 times a day, as the inflammatory process stopped - 2-3 times a day). Pathogenetic and symptomatic therapy included antipyretics (ibuprofen for children), expectorants (ambroxol),

vasoconstrictors (nasivin in the nose) and desensitizing agents (cetirizine). Antibiotics (cefotaxime, ceftriaxone, azithromycin) were prescribed according to indications.

### **Conclusions**

1. In the young children we observed (from 5 months to 3 years), measles occurred in most cases (94.4%) in a typical moderate form. At the same time, patients who received normal donor human immunoglobulin in the incubation period (5.6%) had an atypical (mitigated) mild form of the disease.

2. A typical moderate form of measles was characterized by a cyclical course with a change in classical periods (incubation, catarrhal, rash and pigmentation), the presence of characteristic clinical syndromes of the disease. Pathognomonic symptoms for measles were identified: Belsky-Filatov-Koplik spots (67.7%), stage rash (100%), stage pigmentation (100%).

3. Modern therapy of young children with measles with the inclusion of the complex drug VIFERON - recombinant human interferon alpha 2b in combination with antioxidants (vitamins C and E) has significantly reduced the severity of complications, the frequency of non-smooth course of the disease and prevented the stratification of acute respiratory viral infections.

### **References:**

1. Gussoeva I. G., Albegova B. Z., Murtazova T. M., Geladze N. A. Kliniko-epidemiologicheskie osobennosti kori u detey v respublike Severnaya Osetiya-Alaniya na sovremennom etape [Clinical and epidemiological features of measles in children in the Republic of North Ossetia-Alania at the present stage]. Aktual'nye voprosy infektsionnoi patologii i vaccinoprofilaktiki: materialy XIII kongressa detskikh infektsionistov Rossii 11-13 dekabrya 2014 — 2014. - p. 25.
2. Zaitseva I. A., Mikhailova E. V. Korl / Infectious diseases: national guidelines. Edited by N. D. Yushchuk and Yu. Ya. Venterov, Moscow: GEOTAR-Media, 2010, pp. 801-809.
3. Nazarochnikina O. V., Kolokolov V. A., Rat'eva I. A., Vyazgina E. V., Ivanov E. A. Epidemic of measles in the Astrakhan region in 2013-2014. Aktual'nye voprosy infektsionnoi patologii i vaccinoprofilaktiki: materialy XIII kongressa detskikh infektsionistov Rossii 11-13 dekabrya 2014 - 2014. — p. 52.
4. Ziyodulloevich A. M. Modern Therapy of Viral Hepatitis //Texas Journal of Medical Science. – 2023. – T. 26. – C. 33-36. Uchaykin V. F., Shamsheva O. V. Guide to clinical immunology, Moscow: GEOTAR-MED, 2006, 592 p.
5. Abdulloev M. Z., Oblokulov A. R. ANALYSIS OF THE RESULTS OF A STUDY ON THE DETERMINATION OF CYTOKINES IN PATIENTS WITH CHRONIC HEPATITIS C DEPENDING ON THE PRESENCE OF CRIGLOBULINEMIA // "XALQ TABOBATI VA ZAMONAVIY TIBBIYOT, YANGI



- YONDASHUVLAR VA DOLZARB TADQIQOTLAR". - 2023. - Vol. 6. - Pp. 8-9.
6. Oblokulov R. A., Abdulloev M. Z. To Study the Effectiveness of Direct-Antiviral Drug in the Treatment of Chronic Viral Hepatitis C, Your Act //Web of Scholars: Multidimensional Research Journal. – 2022. – T. 1. – №. 5. – C. 201-206.
  7. Ziyodulloyevich A. M. IN CHRONIC VIRAL HEPATITIS AND CIRRHOSIS OF THE LIVER, THE STUDY OF CYTOKINE LEVELS //BARQARORLIK VA YETAKCHI TADQIQOTLAR ONLAYN ILMIY JURNALI. – 2022. – T. 2. – №. 12. - pp. 784-787.
  8. Abdulloev M. Z. VARICELLA POX IN ADULTS AND CHILDREN / / TA'LIM VA RIVOJLANISH TAHLILI ONLAYN ILMIY JURNALI. - 2023. - Vol. 3. - no. 12. pp. 410-418.
  9. Abdulloev M. et al. View Of An Infectious Disease Specialist On The Course Of The Cortex In Children // AMALIY VA TIBBIYOT FANLARI ILMIY JURNALI. - 2023. - Vol. 2. - no. 12. pp. 930-939.
  10. Ziyodulloyevich A. M. EFFICIENCY OF ETIOTROPIC TREATMENT IN CHRONIC VIRAL HEPATITIS //Galaxy International Interdisciplinary Research Journal. – 2023. – T. 11. – №. 4. – C. 450-454.
  11. Ziyodulloyevich A. M. Studies on the Determination of Cytokines in Patients with Chronic Hepatitis C with Criglobulinemia //American Journal of Pediatric Medicine and Health Sciences (2993-2149). – 2023. – T. 1. – №. 10. – C. 487-495.
  12. Abdurashid R. Obloqulov, Aziza A. Elmurodova and Donohon N. Achilova 2023. ROLE OF CYTOKINES IN THE DEVELOPMENT OF LIVER CIRRHOSIS, WHICH DEVELOPED AS A RESULT OF CHRONIC VIRAL HEPATITIS D (REVIEW ARTICLE). Central Asian Journal of Medicine. 3 (Oct. 2023), 103-112.
  13. Amirkulovna A. G. Clinical and Epidemiological Features of Measles in Adults //Central Asian Journal of Medical and Natural Science. – 2022. – T. 3. – №. 3. – C. 80-86.
  14. Худойдодова С.Г./ Особенности течения и лечения ларингита при кори у детей раннего возраста// Новый День в Медицине NDM 1(29) 2020 С.450-453