

8th International Conference on
INFECTIOUS DISEASES: CONTROL AND PREVENTION
 May 16, 2024 | Virtual

Received December 25, 2023; Accepted: December 27, 2023; Published: May 16, 2024

Title: Coronavirus infection (COVID-19) in children (clinical observations).

Begaidarova Rosalia

Medical University of Karaganda, Kazakhstan

Patient Zh. 9 years old (born on 27.10.2010) was admitted to the clinic on 18.08.2020 with complaints: vomiting, loose stools up to 10 times a day, anxiety, body rash, conjunctival hyperemia, eyelid swelling, palmar erythema, abdominal pain, weakness, fever, poor appetite.

Anamnesis morbi: he has been ill since 14.08.2020, when he had fever (above 38°C), abdominal pain, loose stools. The next day a skin rash appeared, then conjunctival hyperemia, followed by palmar erythema. At home he took Cef3 500 mg x 2 times for 3 days, Rehydron, Smecta, activated charcoal, paracetamol, Ibufen - with no effect, and therefore he was taken to the hospital with the diagnosis of acute intestinal infection (AII).

Epidemiological history: denies contact with an infectious patient and does not associate the disease with anything.

Objective data: as of 18.08.2020. Respiratory rate - 22 per minute, Temperature - 37.5 C. Blood pressure - 90/60 mm Hg. Saturation - 96%. Severe condition due to symptoms of intoxication and dyspeptic syndrome. Clear consciousness, comes into contact, the state of health is moderately impaired. Regular build, satisfactory nutrition. Pale skin, maculopapular rash on the body, extremities. Palmar and foot erythema. Warm extremities. Capillary imbibition rate - less than 3 sec. Visible mucosae and tongue are wet, clean. The eyes are not hollow, the skin fold is immediately deployed. Sufficient salivation, wet lips. Conjunctival hyperemia and oedema of both eyes are noted. No peripheral edema. Lymph nodes: anterior cervical - up to 1 cm in diameter, in other groups - up to 0.5 cm, painless, motile. The musculoskeletal system has no visible deformation, joint movements are not limited. Easy nasal breathing. Pharynx - moderate mucosal hyperemia, the labial mucosa is dry, hyperemic, no cough. Percussion - vesicular resonance. Auscultatory - vesicular breathing, no dyspnoea. Satisfactory peripheral pulse. Cardiac borders are according to age. Loud heart tones, regular rhythm, tachycardia, short systolic murmur on the top and in the secondary aortic area, no irradiation. The abdomen is soft, stomach gurgling, painless on palpation mostly in the paraumbilical region. No symptoms of peritoneal irritation. Gastric peristalsis is not heard, the anus is occluded. The liver and lien are not enlarged. Urination is free, painless. Loose stool. Negative meningeal symptoms.

Laboratory and Diagnostic Examinations:

18.08.2020. ESR -10 mm/hour; Complete Blood Count (6 parameters) on analyzer - relative (%) monocytes-4.0%; eosinophils-4.0%; lymphocytes-16.0%; neutrophils-76%; hematocrit-33.9%; WBC-8.4%; platelets-183.0/l; RBC-4.20/l; hemoglobin- 120.00000 g/l. Coagulogram dated 18.08.2020. D-dimer -2202.20 ng/ml; Quick's value-101%; fibrinogen 4.9 g/l; APTT-47.9 seconds, TT (thrombin time) 11 seconds; INR -1.08; PT -12.1. Biochemical blood test dated 19.08.2020. Total protein-67g/l; albumin-33g/l; urea-18.7 mmol/l; creatinine-243mmol/l; glucose-5.1 mmol/l; CRP- 407.9 mg/l; rheumatoid factor+; troponin 1.49 мг/мл; BNP – (natriuretic peptide) less than _ 0.05 ng/ml; ferritin368,4 ng/ml; procalcitonin -17.9 ng/ml; interleukin- 842.5 ng/ml

COVID-19 test: Nasopharyngeal smear PCR – SARS -CoV -2 RNA not identified (serologic examination) ELISA - SARS -CoV -2 IgM - 0.65, ELISA - SARS -CoV-2 IgG - 8.7, indicates a past infection.

ECG dated 18.08,20.08,21.08.2020: sinus tachycardia. Metabolic disorder in the myocardium. Incomplete right bundle branch block. Long QT interval ECHO-CG dated 21.08.2020: Bicuspid aortic valve, partially undivided commissure between the right

8th International Conference on
INFECTIOUS DISEASES: CONTROL AND PREVENTION
May 16, 2024 | Virtual

and left coronary cusps, mild aortic regurgitation, dilatation of the ascending aorta. Typical for Kawasaki disease - diffuse dilation of right coronary artery lumen, mild hydropericardium. Hypokinesia of the basal inferior segment of the left ventricular myocardium, no abnormalities of contractility were confirmed in the regional deformation study mode. Dilation of left ventricular cavity, mild mitral regurgitation.

Cardiologist Consultation: dated 20.08.2020. Impression: Inflammatory Multisystem Syndrome (Kawasaki-like Syndrome) Associated with COVID-19.

Nephrologist Consultation: dated 20.08.2020. Renal ultrasound - enlarged, GFR (glomerular filtration rate) according to Schwarts formula - 24.7 ml/min. Impression: Acute renal damage (prerenal), neoliguric form, as part of inflammatory multisystem syndrome (Kawasaki-like syndrome) associated with COVID-19.

Taking into account the history of the disease, clinical data, detected IgG antibodies to SARS-Cov-2 (ELISA) indicating an infection, the diagnosis was made: Inflammatory Multisystem Syndrome (Kawasaki-like Syndrome) Associated with COVID-19.

Received treatment:

Correction of immune response: intravenous immunoglobulin- 2 g/kg-80 g in 24 hours.

Correction of inflammatory activity - hormone therapy (dexamethasone, methylprednisolone. prednisolone). Coagulopathy therapy: acetylsalicylic acid, heparin 50-100 U/kg daily low molecular weight heparins. Antibiotic therapy: v/v Cef 3 - 2 g x 2 times daily (7 days). Pathogenetic and symptomatic therapy: Quamatel 20 mg once daily (7 days),

Viferon (1000000 IU, suppositories) (1000000 IU, rectal) (2 times daily) 8 days).

Transfer Summary:

23.08.2020. T-37. Pulse: 86. Blood pressure: 95/65. Saturation: 97.

Severe condition, the severity of the condition is associated with symptoms of intoxication, skin syndrome, and renal failure. The patient is conscious, reacted adequately to examination, did not feel worse, subfebrile temperature (below 38.0 °C). Enteral nutrition is ingested, no dyspeptic phenomena. The skin is pale pink, the skin fold is deployed. Scattered elements of a pale pink papular rash are in the area of the ankle joint. Wet mucosae. Free breathing, no rale. Moderate heart sounds. Systolic murmur in the secondary aortic area of the same intensity. Peripheral pulse is of satisfactory tension. The abdomen is soft, painless, non-tense. The liver is of the same size. Free urination.

As for further treatment, the patient was moved to the National Research Center for Maternal and Child Health of the Republic of Kazakhstan (Nur-Sultan city) for biological therapy in connection with the preserved inflammatory activity in the blood and changes in echocardiography.

Biography

Begaidarova Rosalia Khasanovna in 1982, in Moscow (Russia), defended dissertation for the degree of Candidate of Medical Sciences on the topic: "Functional states of the sympathetic-adrenal system in children with salmonellosis." In 1995, in Almaty (Kazakhstan), she defended her dissertation for the degree of Doctor of Medical Sciences on the topic: "Clinical and biochemical aspects of intestinal infections in children and the pathogenetic rationale for corrective therapy." In 1996, she received the title of professor at the Department of Children's Infectious Diseases of Karaganda State Medical university. From 1998 to 2018, she was elected to the position of head of the Department of Children's Infectious Diseases of KSMU, and in 2019 she was transferred to the position of Honored Professor of the Department of Infectious Diseases and Phthysiology. 225 articles and abstracts have been published in journals indexed in COXON, Scopus and Web of science. Member of the editorial board of the journal: Medicine and Ecology. Medical University Karaganda.