

(обрезано) 32, 66 umol/L; **Uric acid level on the analyzer** uric acid level in blood serum – 68,2 umol/L; **Na level on the analyzer** serum sodium level – 131,55 mmol/L ; **Serum glucose level on the analyzer** serum glucose level – 7,91 mmol/L ; **Urea level on the analyzer** urea level in blood serum – 3, 06 mmol/L ; **total blood protein level on the analyzer** total blood protein level in blood serum – 59, 78 g/l ; **total Bi level on the analyzer** total serum bilirubin level– 5, 81 umol/L ; **cholesterol level on the analyzer** serum cholesterol level– 1, 55 mmol/L ; **CLIA PCT procalcitonin level** – 1,14 ng/ml ;

**14.02.2022 CBC (Complete Blood Count, 6 parameters) on the analyzer** colour index of blood – 0,71 ; relative (%) quantity of monocytes (MON%) in blood – 5%; percentage (%) quantity of basophils (BA%) in blood – 1% ; percentage (%) quantity of lymphocytes (LYM%) in blood – 11% ; percentage (%) quantity of neutrophils (NEUT%) in blood – 83% ; hematocrits (HCT) in blood – 30% ; platelets (PLT) in blood – 602,0/L (602/L) ; red blood cells (RBC) in blood – 3,3/L ; white blood cells in blood– 23,5/L ; hemoglobin (HGB) level in blood – 85 g/L ; ESR (analyzer) – 42 mm/h

**14.02.2022 Urinalysis (UA) on the analyzer** relative density of urine (specific gravity) – 1 020,000 (1020) ; Urine pH level – 6,00 (6) ; Urine clarity (analyzer) – 2,00 Leu/μL (2 leucocytes in μL) ; Epithelial cells in urine (UA) - 3,00/mm (3 per 1 mm) ;

**Microprecipitation blood test done on the 15.02.2022** – negative

**Microbiological study (stool sample for pathogenic bacteris) done on the 15.02.2022** – negative

**Stool analysis for helminth eggs done on the 15.02.2022** – negative

**Instrumental researches**

**Ultrasound of hepatobiliopancreatic region (liver, gallbladder, pancreas, spleen)**

**(01.02.2022)** Conclusion: diffuse changes in the parenchyma of the liver, the pancreas and the spleen. Reduced gallbladder. Aerocoly.

**Renal ultrasound (01.02.2022)** Conclusion: diffuse changes in the renal parenchyma of both kidneys.

**Chest radiography surveillance ( 1 view ) (01.02.2022)**

Conclusion: bilateral pneumonia. Bronchiectasis. Mucoviscidosis.

**Chest radiography surveillance ( 1 view ) (13.02.2022)**

Conclusion: bilateral pneumonia developed due to mucoviscidosis. Bronchiectasis.

**Chest radiography surveillance ( 1 view ) (14.02.2022)**

Conclusion: bilateral pneumonia developed due to mucoviscidosis. Bronchiectasis. Initial signs of interstitial pulmonary oedema.

hematocrit (HCT) in blood – 33% ; platelets (PLT) in blood – 729,0/L (729/l) ; red blood cells level (RBC) in blood – 3,5/L ; leucocytes level in blood – 14,1/L ; hemoglobin (HGB) in blood – 94 g/L ; ESR (analyzer) – 14 mm/h

**01.02.2022 the RNA of Covid-19 PCR** Detection of the RNA of coronavirus (COVID-19) -negative

**02.02.2022 Urinalysis (UA) on the analyzer** relative density of urine (specific gravity) – 1 015,000 (1015) ; Urine pH level – 6,50 (6,5) ; Urine clarity – cloudy ; LEU level in urine (analyzer) – 8,00 leucocytes per 1 μL (microliter) (8 leucocytes per 1 mL) ; epithelial cells level in urine (UA) – 4,00 per 1 mL (4 per 1 mL) ;

**02.02.2022 CLIA PCT procalcitonin** – 0,41 ng/mL ;

**02.02.2022 Blood typing determination by coliclones** blood typing – 0 (I) – one ; rhesus factor – Rh+ (positive) ; **Rhesus factor determination** rhesus factor Rh+ (positive) ;

**04.02.2022 C Reactive Protein level on the analyzer** – 159 mg/L ; **ALT level on the analyzer** ALT – 3,00 IU/L (0.05 μkat/L) ; **albumin level on the analyzer** serum albumin (analyzer) – 29,90 g/L (29.6 g/L) ; **AAT level on the analyzer** AAT – 17,40 IU/L (0.29 μkat/L) ; **Ca level on the analyzer** serum calcium (analyzer) – 1.85 mmol/L ; **K level on the analyzer** serum potassium level – 3.82 mmol/L ; **Creatinine level on the analyzer** serum creatinine – 59.39 umol/L ; **Uric acid level on the analyzer** serum uric acid level – 135.15 umol/L ; **Na level on**

**the analyzer** serum sodium – 129.86 mmol/L ; **serum glucose on the analyzer** serum glucose – 4.77 mmol/L ; **Urea level on the analyzer** serum urea level – 1.17 mmol/L ; **total blood protein level on the analyzer** total blood protein level in blood serum – 83.13 g/l ; **total Bi level on the analyzer** total serum bilirubin level – 11.59 umol/L ; **cholesterol level on the analyzer** serum cholesterol level – 1.77 mmol/L ;

**04.02.2022 CBC (Complete Blood Count, 6 parameters) on the analyzer** colour index of blood – 0,71 ; relative (%) quantity of monocytes (MON%) in blood – 5%; percentage (%) quantity of lymphocytes (LYM%) in blood – 9% ; percentage (%) quantity of neutrophils (NEUT%) in blood – 86% ; hematocrits (HCT) in blood – 30% ; platelets (PLT) in blood – 693,0/L (693/L) ; red blood cells level (RBC) in blood – 3,1/L ; white blood cells level in blood – 15,1/L ; hemoglobin (HGB) level in blood – 83 g/L ; ESR (analyzer) – 7 mm/h

**07.02.2022 C Reactive Protein on the analyzer (CRP)** – 167.46 mg/L ;

**08.02.2022 Glucose detected by express method** serum glucose – 5.3 mmol/L ;

**08.02.2022 Glucose detected by express method** serum glucose – 8.4 mmol/L ;

**09.02.2022 HbA1 on the analyzer** glucated hemoglobin in blood – 6,7%

**09.02.2022 C Reactive Protein on the analyzer (CRP)** - 124.06 mg/L ;

**Weight – 20 kg. DMT (dimethyltryptamine) 43% Height – 135 cm BMI (body mass index) 11,5**

Patient's condition is admitted to be severe due to respiratory disorder, lung inflammation, type 2 respiratory failure induced with the underlying disease (mucoviscidosis), extensive bronchiectasis, pancreatic insufficiency, chronic hypoxia, protein-energy malnutrition stage 3. Clear consciousness. Unsatisfactory condition. Decreased appetite. No vomiting during medical examination is observed. Ectomorphy, malnutrition. Subcutaneous fat is thinned. No meningeal signs detected. Patient is capable of opening the eyes, pupils are of equal size. Visible mucosa of pale pink colour. Pharynx is moderately hyperemic. Skin integuments are pale and clear. Deformed drumstick fingers, thickened nail plates presented as hippocratic nails, signs of chronic hypoxia. Nose breathing is not labored. Frequent, productive cough with copious phlegm of green colour. Auscultation of the lungs is debilitated in the lower lobes of the lungs, moist rales of different calibres are heard on each lung field. The accessory muscles used when breathing – lower chest indrawing. Percutaneously – reduction in the lower lobes of the lungs. Periodic decreases in oxygen saturation to 75%. Oxygen-dependent. Heart beats are dull, tachycardia. The abdomen is soft, palpatory tenderness is not detected, peristalsis is traceable. Liver is not exaggerated. Spleen is not palpable. Unobstructed urine passage. Regular excretion.

**The results of telemedicine in JSC «Scientific Center of the Pediatrics and Pediatric Surgery» were achieved on 15.02.22**

**Conclusion:**

For conducting a medical research and selecting further therapy strategy, including the process of solving the issue of the lungs transplantation necessity, hospitalization to the department of Pulmonology of JSC «Scientific Center of the Pediatrics and Pediatric Surgery» is essential.

**Recommendations:**

Transportation to «Scientific Center of the Pediatrics and Pediatric Surgery» by air ambulance providing the oxygen support.

**Sanitary-epidemiological surveillance: No exposure to epidemics**

**PCR results done on 15.02.2022 № 76011596** – negative (Alana Abdullaeva)

**PCR results done on 15.02.2022 № 76011603** – negative (Al'mira Dlimbetova)

**The patient is exposed to transmission by air ambulance for the further medical research and relevant treatment to «Scientific Center of the Pediatrics and Pediatric Surgery», the city of Almaty, Kazakhstan.**

**The consent of K. Boranbaeva, the hospital director of «Scientific Center of the Pediatrics and Pediatric Surgery» for the patient transportation is acquired.**

**Solution suggests:**

- Health risks during transportation**
- Parental consent for transportation is acquired; health risks are taken into account, including risks of lethal effect (written informed consent is provided).**