

*Тезисы Всероссийской конференции с международным участием:  
«Коморбидность: междисциплинарный подход»,  
11-12 мая 2022 года, г. Барнаул  
Алтайский государственный медицинский университет*

*Theses of the All-Russian Conference with international participation:  
"Comorbidity: an interdisciplinary approach",  
May 11-12, 2022, Barnaul  
Altai State Medical University*

---

## **EXTRAPULMONARY MANIFESTATIONS OF COVID-19**

*Semey Medical University, Semey, Kazakhstan*

**Maukayeva S.B., Karimova S.S., Bayanbayeva T.S., Issabayeva E.K.,**

**Nuralinova G.I., Issabekova Zh.B., Bakhytbek T.**

*E-mail: [solly66@mail.ru](mailto:solly66@mail.ru)*

---

COVID-19 is an acute infectious disease caused by SARS-CoV-2, which occurs with intoxication, fever, predominant pulmonary involvement and extrapulmonary lesions of various organs and systems. The lesion of the gastrointestinal tract is one of the manifestations of coronavirus infection.

**Purpose of the study.** Analysis of the clinical manifestations of the gastrointestinal tract lesion in coronavirus infection.

### **Material and methods**

Case histories of 100 patients with a confirmed case of COVID-19 hospitalized in the infectious department of Semey were analyzed.

### **Research results**

The analysis showed that men predominated (53%), the average age was  $54.9 \pm 15.4$  years). The most common gastrointestinal symptoms were loss of appetite (83%), nausea (33%), diarrhea (29%), vomiting (1%), and abdominal pain (1%). At the same time, respiratory signs of coronavirus infection in such patients occurred much later than gastroenterological symptoms, or did not appear at all. Moderate course occurred in 68% of patients with gastrointestinal manifestations, moderate - in 32%. In patients with COVID-19 who had gastroenterological complaints, fever above 38.5 C (40%), general weakness (31%), shortness of breath (11%), and headache (22%) were

significantly more common. The SARS-CoV-2 virus also affected liver cells. An increase in transaminase levels was noted in 47% of patients with COVID-19 infection. In addition, transaminase levels increased in patients treated with remdesivir and returned to normal after treatment was completed. Patients with non-alcoholic fatty liver disease and non-alcoholic steatohepatitis in the presence of metabolic comorbid conditions (diabetes mellitus, hypertension and obesity) are at increased risk of severe COVID-19 infection. Risk factors were identified in 45% of patients with COVID-19.

### Conclusions

Thus, the COVID-19 virus can infect the gastrointestinal tract in several ways, induce inflammation and change the permeability of the mucous membranes. It is necessary to continue research on the lesions of the digestive organs that develop with COVID-19 and their impact on the course and prognosis of the disease.

### References:

1. Dong, E., Du, H. & Gardner, L. An interactive web-based dashboard to track COVID-19 in real time. *Lancet Infect. Dis.* 20, 533–534 (2020). - PubMed - PMC
2. Guan, W. J. et al. Clinical characteristics of coronavirus disease 2019 in China. *N. Engl. J. Med.* 382, 1708–1720 (2020). - PubMed

---

#### **Как цитировать:**

*Maukayeva S.B., Karimova S.S., Bayanbayeva T.S., Issabayeva E.K., Nuralinova G.I., Issabekova Zh.B., Bakhytbek T. (2022). Extrapulmonary manifestations of COVID-19. Тезисы Всероссийской конференции с международным участием: «Коморбидность: междисциплинарный подход», 11-12 мая 2022 г., г. Барнаул, Алтайский государственный медицинский университет. Scientist, 21 (3), 5-6.*

---