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## GASTROINTESTINAL TRACT DAMAGE IN PATIENTS WITH CORONAVIRUS INFECTION

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Annotation. This article presents a clinical case of a patient who died after coronavirus infection with predominant gastrointestinal tract involvement. This clinical case involves a patient who died from Covid-19 infection with predominant gastrointestinal tract involvement. The patient had been experiencing symptoms of daily nausea, vomiting, and diarrhea for 3 months, and these conditions led to weight loss and weight deficiency in the patient. Despite taking anticoronaviral medications, the patient's condition progressively worsened. The article reviews and interprets the diagnosis, clinical course, and treatment features of the disease in the post-coital period with predominant gastrointestinal lesions. This information may help to establish a correct diagnosis and treat patients in the post-coronavirus period.

**Keywords:** coronavirus infection, post-coronavirus infection, post-coronavirus state, gastrointestinal tract, Covid-19.

## ПОРАЖЕНИЕ ЖЕЛУДОЧНО-КИШЕЧНОГО ТРАКТА У БОЛЬНЫХ КОРОНАВИРУСНОЙ ИНФЕКЦИЕЙ

**Аннотация.** В статье представлен клинический случай пациента, умершего после коронавирусной инфекции с преимущественным поражением желудочно-кишечного тракта. В данном клиническом случае речь идет о пациенте, умершем от инфекции Covid-19 с преимущественным поражением желудочно-кишечного тракта. Пациент испытывал симптомы ежедневной

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тошноты, рвоты и диареи в течение 3 месяцев, и эти состояния привели к потере веса и дефициту веса у пациента. Несмотря на прием противокоронавирусных препаратов, состояние пациента прогрессивно ухудшалось. В статье рассмотрены и интерпретированы диагностика, клиническое течение и особенности лечения заболевания в посткоитальном периоде с преобладающим поражением желудочно-кишечного тракта. Эта информация может помочь установить правильный диагноз и лечить пациентов в посткоронавирусный период.

**Ключевые слова**: коронавирусная инфекция, посткоронавирусная инфекция, посткоронавирусное состояние, желудочно-кишечный тракт, Covid-19.

## KORONAVIRUS INFEKTSION BO'LGAN BEMORLARDA OSHQOZON-ICHAK TRAKTINING SHIKASTLANISHI.

Annotatsiya. Ushbu maqolada oshqozon-ichak traktining asosiy shikastlanishi bilan koronavirus infektsiyasidan keyin vafot etgan bemorning klinik holati keltirilgan. Ushbu klinik holat oshqozon-ichak traktining asosiy shikastlanishi bilan Covid-19 infektsiyasidan vafot etgan bemorni o'z ichiga oladi. Bemorda 3 oy davomida har kuni ko'ngil aynishi, qusish va diareya belgilari kuzatilgan va bu holatlar bemorda vazn yo'qotishiga va vazn etishmasligiga olib keldi. Koronavirusga qarshi dori-darmonlarni qabul qilishiga qaramay, bemorning ahvoli tobora yomonlashdi. Maqolada oshqozon-ichak traktining lezyonlari ustun bo'lgan postkoital davrda kasallikning tashxisi, klinik kechishi va davolash xususiyatlari ko'rib chiqiladi va sharhlanadi. Ushbu ma'lumot to'g'ri tashxis qo'yish va koronavirusdan keyingi davrda bemorlarni davolashga yordam beradi.

**Kalit soʻzlar:** koronavirus infeksiyasi, koronavirusdan keyingi infeksiya, koronavirusdan keyingi holat, oshqozon-ichak trakti, Covid-19.

#### INTRODUCTION

In many cases of Covid-19, not only the respiratory system but also the gastrointestinal tract can be affected, and clinical symptoms such as nausea, vomiting, diarrhea, loss of appetite, etc. may be observed. Most patients with Covid-19 experience fever and respiratory symptoms. However, some patients may also experience gastrointestinal symptoms. Studies have shown that viral RNA is isolated

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in anal swabs and feces after coronavirus infection, even though viral RNA is not excreted through the upper respiratory tract. Angiotensin-converting enzyme-2 (AAP-2) receptors, which the virus uses for cell entry, have been found on epithelial cells of the gastrointestinal tract. Thus, these data suggest that Covid-19 infection can actively enter the gastrointestinal tract and multiply. This is important for disease treatment and infection control. In this article, we will show the characteristics of the course and treatment of Covid-19 infection complicated predominantly by the gastrointestinal tract.

#### LITERATURE REVIEW AND METHODOLOGY

A clinical case from practice. Patient Torakulov Bakhodir, 53 years old. On 05.12.2021 the patient applied to the 1st therapeutic department of the multidisciplinary clinic of SamMU. The patient was treated in the ward for 10 days. The patient's complaints: nausea, vomiting, diarrhea, decreased appetite, weight loss, general malaise, rapid fatigue. According to anamnesis data, the patient considers himself sick for 1 year. He attributes his disease to the fact that he was infected with Covid-19 in 11.2020. The illness started with diarrhea and loss of appetite. A few days later, fever and vomiting were added. The patient was treated as an outpatient for several weeks; however, the patient did not recover. On PCR diagnosis at the Covid Center, the patient was diagnosed with Covid-19 and was immediately admitted to the center. But despite taking anticoronaviral medications, the patient's diarrhea and symptoms did not stop. The patient returned home after 8 days. The patient also developed pain in the epigastric region, the food he consumed was not digested, the stomach began to rest. The patient gradually developed diarrhea and weight loss. The patient received outpatient treatment with such drugs as "Ciprox 500", "Levofloxacin 500", "Levomycin", "Enterozhirmine", "Linex", "Smecta", "Omeprazole 20 mg", "Dexamethasone", "Heparin", but diarrhea was observed and the entry did not stop. The patient applied to the therapeutic department of SamMU clinic due to aggravation of the above-mentioned complaints, worsening of the condition, and development of weight deficit.

#### **DISCUSSIONS**

On objective examination of the patient: general condition is of average severity. Status active. Consciousness is stagnant, answers questions with some delay. The constitutional structure is normosthenic. Height - 168 cm. Weight - 40 kg. Body mass index - 14 kg/m2, i.e. a clearly expressed weight deficit was

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determined. Body temperature was 36.2-36.5°C. Vesicular respiration was detected in the lungs. Heart tones were muffled. Pulse rhythmic 75 times per 1 minute. Arterial pressure 110/60 mm sim. The abdomen is soft, painful in the epigastric and periapical region. The liver and spleen are not palpated. Defection - tendency to diarrhea. The patient suffered from diarrhea and was under observation for 6 months.

At laboratory examination: in the general blood analysis: Hemoglobin-96g/l, Erythrocytes-3,7x1012/l, Color index-0,8, Leukocytes-6,5x1012/l, Bacilli-2x109/l, Segmental nuclei-60x109/l. l, Eosinophils-4x109/l, Lymphocytes-31x109/l, Monocytes-3x109/l, EHT-10 mm/s. Urinalysis: volume - 150 ml, color - pale yellow, relative density - 1,024, protein - 0,099%0, epithelium - in the field of view 8-10-12, leukocytes - in the field of view 15-20-25, erythrocytes: changed 2-3-3, unchanged-2-1-0 in the field of view, cylinders-2-1-1-1, mucus-(++), bacteria-(++). Blood biochemistry: total bilirubin-11.9 μmol/L, AST-0.50 μmol/L, ALT-0.64 μmol/L, Creatinine-119.3 μmol/L, Blood urea-8.4. PTV-16 sec, PTI-100%, INR-1.00. IFA test result: 2019-nCOV IgM-negative, 2019-nCOV IgG-2,251 (tested on MINDRAY96A immunoassay analyzer).

Instrumental investigations: ECG: Sinus rhythm. The number of heart beats is 77 per 1 minute. Normal location of the electrical axis of the heart. Metabolic changes in the myocardium of the heart. UTI: Chronic cholecystitis. Chronic pyelonephritis. EGDFS: Subatrophic gastritis. Chest radiograph: Chronic bronchitis.

#### RESULT.

Features of treatment: From the first day the patient was intravenously administered 1 ml of Osetron solution (Ondansetron 8 mg, pharmacologic group - antiemetic agent, serotonin receptor antagonist) mixed with 100 ml of 0.9% isotonic solution. Ondansetron is a selective antagonist of the 5NT3 (serotonin) receptor. Central and peripheral nervous system neuronal receptors regulate gag reflex activity in the gut and CNS centers of the vagus n nerve. Does not affect the center of balance, does not have a sedative effect and does not cause a decrease in performance. It has anxiolytic activity. The patient was administered Osetron for 3 days. No improvement was observed after the 2nd day. The patient was given a mixture of electrolytes, protein and iron preparations intravenously as parenteral nutrition. After that the patient had a small appetite, but after eating he began to be bothered by a feeling of heaviness in the stomach area and nausea. After that the patient was prescribed Acedin-pepsin tablets before each meal. Acedin-pepsin is a

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digestive enzyme agent containing pepsin and betaine hydrochloride. Pepsin and hydrochloric acid formed by hydrolysis of betaine hydrochloride increase the acidity of gastric juice. Acedin-pepsin has proteolytic properties and ensures digestion of food in the stomach. Pepsin exhibits optimal activity at a gastric pH of 1.4 to 2.5; As pH increases, activity decreases and ceases when pH exceeds 6.0. Pepsin is cleaved by duodenal enzymes. Betaine hydrochloride is readily hydrolyzed in the stomach to form free hydrochloric acid.

#### **CONCLUSION**

The patient was also recommended to take pancreatin tablets 2 tablets 3 times between meals. From that day onwards, the patient's symptoms of diarrhea disappeared and appetite increased. Thus, the patient developed hypoacid gastritis due to atrophy of gastric mucosa after infection with coronavirus, decreased synthesis of hydrochloric acid. In this clinical case we managed to control the recorded symptoms in the patient with Osetron and diarrhea with Acedin-pepsin, i.e. we can see that diarrhea was not due to infection after coronavirus infection, but due to decreased gastric juice as a consequence of indigestion.

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