



UDC: [612.015.6:577.161.2]: 616.37-002.2

**FEATURES OF COPROLOGICAL INDICATORS DEPENDING ON THE  
ETIOLOGICAL FACTOR OF CHRONIC PANCREATITIS**
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**Objective:** The aim of the study: early diagnosis of bone demineralization in patients with exocrine insufficiency and vitamin D deficiency. Material and methods: The research was conducted in the Department of gastroenterology at the multidisciplinary clinic of TMA. 92 patients with CP (29 men and 63 women) aged 31-83 years (mean age  $58.40 \pm 1.29$  years) and 15 practically healthy individuals (mean age  $39.73 \pm 4.92$  years) were examined.

Studies have shown impaired extracretory insufficiency in patients with CP, manifested by a decrease in elastase activity from  $208.27 \pm 10.83$  to  $176.69 \pm 7.12$  in biliary, to  $169.75 \pm 25.88$  in idiopathic, and to  $125 \pm 5.44$  in mixed forms of CP. It should be noted that the patients we had examined gastric digestive insufficiency: with biliary CP, it was detected in 19.18%, with idiopathic CP – in 25%, with mixed form – in 18.18% of the examined patients. However, pancreatic insufficiency was more often detected in the examined patients: 69.86% with CP of the biliary tract and 81.81% with mixed form. At the same time, bile insufficiency was more characteristic of the idiopathic form of CP, being detected in 75% of patients, whereas with biliary and mixed genesis it was detected in 50.68 and 55% of the examined, respectively. This is confirmed by the presence of bile acid salts in the feces of 75% of patients with idiopathic form of the disease, in 31.51 and 45.45% of those examined with biliary and mixed forms of CP. Digestive insufficiency in the small intestine was detected with a lower frequency: in 21.92% of patients with biliary form and in 36.36% with mixed forms of the disease. Similar dynamics were typical for dyspepsia in the colon, which was observed in 10.96% and 18.18% of the examined patients with biliary and mixed forms of chronic pancreatitis.

**Key words:** chronic pancreatitis, vitamin D deficiency.

The problem of chronic pancreatitis (CP) is one of the most pressing in modern gastroenterology. In developed countries, the incidence of CP is 4-8 cases per 100,000 population per year [3, 5]. In specialized hospitals, these patients account for about 10% of hospitalizations, primary disability is 15% [3, 5]. Over the past 20 years, a twofold increase in the number of patients with CP has been noted [3,7]. Moreover, the frequency of secondary CP varies from 0.2 to 0.68 percent. The incidence increases with the aging of the population and 30% of them occur in women [3, 6, 7, 8]. The developing insufficiency of various parts of the digestive system in CP has a negative effect not only on growth and development, regeneration processes, but also detrimentally affects the evacuation and excretory functions of the large intestine, which is manifested by changes in coprological indicators. In this regard, identifying the characteristics of changes in coprological indicators and, on their basis, adjusting treatment tactics and diet therapy is a pressing problem in gastroenterology.

**Purpose of the study:** to identify the features of changes in coprological indicators depending on the etiological factor in the development of chronic pancreatitis.



**Material and methods.** The studies were conducted in the gastroenterology department of the TMA multidisciplinary clinic. Ninety-two patients with CP (29 men and 63 women) aged 31-83 years (mean age  $58.40 \pm 1.29$  years) and 15 practically healthy individuals (mean age  $39.73 \pm 4.92$  years). The diagnosis of CP was established according to the standards developed by the Ministry of Health of the Republic of Uzbekistan based on clinical, anamnestic, instrumental, and laboratory data. Biliary pancreatitis was diagnosed in 73 patients, idiopathic pancreatitis in 8, and mixed pancreatitis in 11. Ultrasound of the pancreas was performed using a device Philips SD-360. Qualitative coprological examinations were performed upon admission to the department, with patients following a standard diet (e.g., the Schmidt diet, which includes 105 g of protein, 135 g of fat, and 180 g of carbohydrates) without the use of polyenzyme supplements. Criteria for exocrine insufficiency included elevated levels of neutral fat and soaps in the stool with little change in fatty acid levels; elevated muscle fiber content indicates cryatorrhea. The digital material was processed using the variation statistics method.

**Results.** The conducted studies have shown a violation of exocrine insufficiency in patients with CP, manifested by a decrease in the activity of elastase with  $208.27 \pm 10.83$  to  $176.69 \pm 7.12$  for biliary, up to  $169.75 \pm 25.88$  – for idiopathic and up to  $125 \pm 5.44$  – for mixed forms of chronic pancreatitis. It should be said that the patients we examined showed insufficiency of gastric digestion: in biliary CP it was detected in 19.18%, in idiopathic CP – in 25%, in mixed form – in 18.18% of examined patients. However, pancreatic insufficiency was detected more frequently in the examined patients: in biliary CP – in 69.86%, while in mixed form – in 81.81%. At the same time, insufficiency of bile secretion was more characteristic of the idiopathic form of CP, being detected in 75% of patients, while in biliary and mixed genesis it was detected in 50.68 and 55% of examined patients. This is confirmed by the presence of bile salts in the feces of 75% of patients with the idiopathic form of the disease, in 31.51 and 45.45% of examined patients with biliary and mixed forms of CP. Small intestinal maldigestion was detected less frequently: in 21.92% of patients with the biliary form and in 36.36% of those with the mixed form of the disease. A similar trend was observed for colonic maldigestion, occurring in 10.96% and 18.18% of patients with the biliary and mixed forms of chronic pancreatitis.

**Conclusions:** Based on the data obtained, it can be concluded that chronic pancreatitis is characterized by insufficient digestion in all parts of the gastrointestinal tract, manifested by amylopoorrhea, critorrhea, and steatorrhea. Impaired absorption of cations and vitamins, especially fat-soluble vitamins, is also noted.

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