Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.
Introduction: Acute pancreatitis in inflammatory bowel disease occurs mainly as an extraintestinal manifestation or a side effect of medications.

Purpose: We aimed to investigate the prognostic factors and severity indicators of acute pancreatitis and the treatment of patients with both diseases.

Materials and methods: We performed a matched case-control registry analysis of a multicenter, prospective, international acute pancreatitis registry. Patients with both diseases were matched to patients with acute pancreatitis only in a 1:3 ratio by age and gender. Subgroup analyses were also carried out based on disease type, activity, and treatment of inflammatory bowel disease.

Results: No difference in prognostic factors (laboratory parameters, bedside index of severity in acute pancreatitis, imaging results) and outcomes of acute pancreatitis (length of hospitalization, severity, and local or systemic complications) were detected between groups. Significantly lower analgesic use was observed in the inflammatory bowel disease population. Antibiotic use during acute pancreatitis was significantly more common in the immunosuppressed group than in the non-immunosuppressed group (p=0.017). However, none of the prognostic parameters or the severity indicators showed a significant difference between any subgroup of patients with inflammatory bowel disease.

Conclusions: No significant differences in the prognosis and severity of acute pancreatitis could be detected between patients with both diseases and with pancreatitis only. The need for different acute pancreatitis management is not justified in the coexistence of inflammatory bowel disease, and antibiotic overuse should be avoided.

Spectrum of pancreatic lesions in inflammatory bowel diseases

Gulustan Babayeva 1, H. Ibrahimli 1, U. Makhmudov 2, F. Quliyev 3, G. Asadova 4, T. Samadova 4, K. Ismayilova 3, O. Mirzazada 1, A. Hasanova 3, M. Mahammadaliyeva 1

1 Azerbaijan State Advanced Training Institute for Doctors named after A.Aliyev
2 Modern Hospital
3 National Oncology Center
4 Azerbaijan State Advanced Training Institute for Doctors named after A.Aliyev

Introduction: The problem of inflammatory bowel disease continues to be one of the most urgent problems of gastroenterology and the spectrum of pancreatic lesions in this group of patients is multifaceted.

Purpose: To identify the frequency and nature of pancreatic lesions in patients with inflammatory bowel disease.

Materials and methods: In the period from August 2015 to December 2021, 395 patients with IBD were examined; of these, 170 (43.03%) suffered from Crohn’s disease (CD) and 225 (56.96%) from ulcerative colitis (UC). The age of patients is from 18 to 60 years (36.1±2.5). By gender: 188 (47.59%) women and 207 (52.4%) men. The duration of the disease before contacting a specialist doctor is 1.5-4.8 years (2.7±1.4). The patients were under follow-up from 6 to 52 months (21.2±6.4). In addition to the general clinical examination, the following laboratory markers were obligatory determined: vitamin D, albumin, Fe, Mg, antilactopherin IgG, -TNF, IL-1, IL-2, IL-4, IL-6, IL-8, IL-10, IL-18, IgC, IgG4 in blood; calprotectin, lactoferrin, fecal elastase in feces. Patients underwent abdominal ultrasound, if necessary, EUS of the pancreas, abdominal CT and MRI. In the statistical processing of the results obtained, the generally accepted methods of descriptive statistics were used with the calculation of the arithmetic mean values of the trait (M), standard deviation (σ), mean error (m), Student’s coefficient (t), error probability (p).

Results: In 298 patients, abdominal ultrasound revealed changes in echogenicity, in 49 patients in the size of the pancreatic ducts; EUS changes were found in 34 patients. Asymptomatic hyperamylasemia in 38 patients; drug-induced injury in 98 patients (azathioprine, methotrexate, metronidazole, fluoroquinolones, steroids, -TNF inhibitors) and were more typical for the first 2-4 weeks of therapy. Acute pancreatitis against the background of cholelithiasis was detected in 47 patients with CD, and autoimmune pancreatitis in 29, exocrine pancreatic insufficiency in 117 patients.

Conclusions: Patients with IBD have pronounced pancreatic changes, including both comorbidity and extraintestinal complications.

Covid-19 and pancreas lesions in patients with inflammatory bowel disease

Gulustan Babayeva 1, H. Ibrahimli 1, U. Makhmudov 2, F. Quliyev 3, G. Asadova 4, T. Samadova 4, K. Ismayilova 3, O. Mirzazada 1, A. Hasanova 3, M. Mahammadaliyeva 1

1 Azerbaijan State Advanced Training Institute for Doctors named after A.Aliyev, Department of Therapy, Baku, Azerbaijan
2 Azerbaijan State Advanced Training Institute for Doctors named after A.Aliyev, Department of Public Health, Baku, Azerbaijan
3 Modern Hospital, Baku, Azerbaijan
4 National Oncology Center, Baku, Azerbaijan
5 Azerbaijan State Advanced Training Institute for Doctors named after A.Aliyev, Department of Therapy, Baku, Azerbaijan
6 Azerbaijan State Advanced Training Institute for Doctors named after A.Aliyev, Department of Therapy, Baku, Azerbaijan

Introduction: The problem of the variety of extrarespiratory manifestations and complications of COVID-19 is of particular interest; considering patients with inflammatory bowel disease (IBD) who recovered from COVID-19, the causes of abdominal pain and increased diarrhea are interesting from the aspects of pancreatic damage.

Purpose: To identify the nature of pancreatic lesions in patients with IBD who have undergone COVID-19.

Materials and methods: In the period from March 2020 to February 2022, 105 patients with IBD who had undergone COVID-19 were examined; of these, 69 (65.7%) had Crohn’s disease (CD) and 36 (34.3%) ulcerative colitis (UC); aged 18 to 60 years (32.4±13) 72 (68.6%) women and 33 (31.4%) men. The patients were under follow-up from 6 to 18 months (11.5±2.2). In addition to the general clinical examination, the following laboratory markers were determined: vitamin D, albumin, Fe, Mg, antilactopherin IgG, -TNF, IL-1, IL-2, IL-4, IL-6, IL-8, IL-10, IL-18, IgC, IgG4 in blood; calprotectin, lactoferrin, fecal elastase in feces. Patients underwent abdominal ultrasound, if necessary, EUS of the pancreas, abdominal CT and MRI. In the statistical processing of the results obtained, the generally accepted methods of descriptive statistics were used with the calculation of the arithmetic mean values of the trait (M), standard deviation (σ), mean error (m), Student’s coefficient (t), error probability (p).

Results: In 76 patients, a decrease in fecal elastase levels (199-9 μg/g) was detected, with concomitant decreases in the levels of vit D (30-10 ng/mL), albumin and iron and increases in the levels of IL-1, IL-6, IL-8, IL-10, IL-18, calprotectin (500-3227 μg/g); lactoferrin (12-189 μg/g). In 92 cases, abdominal ultrasound revealed changes in echogenicity and 31 cases in the size of the pancreatic ducts; EUS changes were found in 18 patients. Prevailing were drug-induced lesions in 72 cases (mainly against the background of taking 5-ASA drugs, immunosuppressants, antibiotic therapy, steroids and -TNF inhibitors). Acute pancreatitis with hospital outcomes was detected in 21 cases (16 CD, 5 UC) and was characterized by higher levels of IL-6 (12-57 pg/mL) and IL-18 (275-983 pg/mL). Autoimmune pancreatitis was verified in 13 cases (type I-8 patients, type II-5 patients).

Conclusions: In patients with IBD who underwent COVID-19 in most cases, a decrease in fecal elastase was found; pancreatic lesions were represented by drug-induced, acute and denovo autoimmune pancreatitis. It is possible that a longer observation period in this group of patients will also reveal other pancreatic lesions, unknown both in comorbidity and in the severity of extraintestinal complications.