SURGICAL TREATMENT OF PATIENTS WITH PARADUODENAL (GROOVE) PANCREATITIS

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Abstract

Introduction. Treatment of patients with chronic pancreatitis (CP) remains the most difficult task of pancreatology. Paraduodenal inflammation was evaluated in case of patients' detailed instrumental examination and intraoperatively obtained tissues – it gave the possibility to diagnose paraduodenal – "groove" - pancreatitis.

Material and methods. The experience of surgical treatment of 71 patients with CP for the last 7 years has been analyzed. 27 patients with inflammatory and necrotic lesions of the pancreatic periampular part – "groove" pancreatitis were retrospectively selected out of them. Their anamnesis, clinical status, operative interventions and postoperative period are analyzed.

Results. 24 out of 27 patients with "groove" pancreatitis underwent surgical treatment. Pancreatoduodenal resections were performed in 12 patients. Organosaving operations were performed in 10 cases. Palliative surgery was performed in 2 patients. The indications for operative interventions were formulated and were given characteristics of the postoperative period.

Discussion. According to the expressed pain syndrome in such patients, the authors recommend to perform pancreatoduodenal resection based on indications.

Conclusion. Correct surgical tactics in case of patients' treatment with a rare form of CP complication - "groove" of pancreatitis - allows to eliminate pain syndrome and contribute to their recovery.

Key words: paraduodenal pancreatitis, groove pancreatitis, chronic pancreatitis, duodenum, surgical treatment, postoperational syndrome

Our attention includes patients with long-term chronic inflammatory process in the pancreatic parenchyma, which, depending on the clinical manifestation of the pathological process and their clinical condition, the severity of pancreatitis and the presence of complications and/or dysfunction of vital organs are subject to surgical treatment. However, a thorough instrumental examination of the patients and morphological examination of the intraoperatively obtained tissues repeatedly revealed the presence of paraduodenal inflammation which gave us possibility to diagnose *paraduodenal pancreatitis* well-known from the scientific literature as "groove".

We made a similar diagnosis based on the localization of the pancreatic lesion - in a number of patients, inflammatory necrotic lesions of the pancreatic head area surrounding the adjoining duodenal wall and the intra-pancreatic duct were found. It is clear that the lesion area is so "tiny" from an anatomical point of view that it needs some attention for diagnostic and, accordingly, surgical manipulations.

We have already encountered this problem before, when we carried out a thorough analysis of etiological factors, pathogenetic mechanisms, morphological manifestations and complexities of differential diagnosis of "groove" pancreatitis [4]. Since then, due to the significant morbidity of the population with chronic pancreatitis (CP), taking into account the polymorphism of its etiological factors and the complexity of pathogenetic mechanisms, as well as the development of organ dysfunctions [5-7], we have treated 27 patients with CP with isolated "groove" pancreatitis.

The aim of the work – to investigate the peculiarities of diagnostics and surgical treatment of patients with complicated form of CP – "groove" pancreatitis.

Material and methods. The retrospective analysis of 71 patients with CP treatment throughout 2012-2018 is presented. All patients underwent careful diagnosis (ultrasound examination of pancreatodenal organs, computed tomography and MRI, which was performed in clinically difficult cases in 19 cases) and the performance of pancreatoduodenal resection, the results of which, as well as due to the morphological examination of 27 patients (38.0%) were diagnosed with inflammatory-necrotic damage to the periampular area of the pancreatic head - "groove" pancreatitis. The diagnosis of the rest of the patients was formulated as follows: 7 patients were diagnosed with malignant disease of the periampular area of the pancreas.

Of all patients diagnosed with "groove" pancreatitis were 20 people (74.1%) and 7 women (25.9%) aged 27 to 56 years. The mean age of the patients was 45.3±4.8 years. The majority of patients (21 of 27) reported a history of alcohol abuse.

In the postoperative period, all patients underwent appropriate drug therapy in accordance with the standards of surgical treatment of patients who underwent operations on the pancreas. Control of the course of the early postoperative period was carried out using conventional methods of clinical and laboratory examination. In all cases, ultrasound was performed in the early postoperative period, sometimes MRI and CT scan of abdominal organs were performed by radiological examination if necessary.

Results

Surgical treatment was performed on 24 of 27 patients with "groove" pancreatitis. 3 patients who have made complaints that allowed to suspect the presence of CP are subject to dynamic monitoring, but their clinical condition is still satisfactory. Intensive pain, which did not cease under medication, was an

indication for surgery.

From the medical history, it was found that 15 (55.6%) of the 27 patients started on the onset of acute pancreatitis after drinking alcohol. Subsequently, these patients periodically experienced upper abdominal pain of variable intensity, corresponding to CP. In 9 patients (33.3%) there was a gradual development of the disease: they complained of minor pain in the upper abdomen with a further increase in their intensity and frequency. In 3 patients (11.1%) the first symptom of the disease was a violation of the duodenum passage.

Abdominal pain became the main symptom of the disease, present in 26 patients (96.3%). The disease had a painless type in 1 patient. The most frequent (1 time per week) pain attack was associated with the disease in 18 patients (66.7%), once in 2-4 weeks, abdominal pain occurred in the remaining patients (33.3%).

According to CT, out of 27 patients, diagnostic criteria characteristic for CP were found in 23 patients (85.2%) and were absent – in 4 patients (4.8%). Increase in size, calcification and presence of postnecrotic cysts were detected in the pancreatic head in 21 patients (77.8%), diffuse changes of the gland in 12 (44.4%). Laboratory symptoms of duodenal ulcer, in its descending part, were found in 25 of 27 patients (92.6%), while in 4 patients it spread to the ampoule part, and in 5 cases – to the lower horizontal part of the duodenum. No cases of lesions of two or more divisions of the duodenum were detected.

Pancreatoduodenal resection was performed in 12 patients out of 24 (50.0%). Of these, 10 patients underwent a type of surgery to preserve the pyloric gut, and 2 patients with gastric resection. Organ-saving operations were performed by 10 patients (41.7%), including operations by Frey and Beger – 8 patients. In 2 patients, in the presence of inflammatory changes in the pancreatic parenchyma, expressed pathological changes were localized in the wall of the duodenum – these patients underwent circular resection of the descending part of the duodenum with resection of its head. Palliative surgery was performed by 2 patients (8.3%) due to the presence of pronounced inflammatory infiltration in the area of the pancreatic head (caput).

The postoperative period was satisfactory in the majority of the operated patients (17 out of 24, 70.8%). In 7 patients, postoperative complications developed mainly in the form of failure of the formed anastomoses after pancreatododenal resection (6 cases). 1 patient developed acute pancreatitis, which was the cause of his death. Consequently, the mortality rate was 4.17% due to 24 operations. 12 patients reported no pain, which was the leading cause and indication for surgery. In 5 people, complaints of pain persisted, however, their intensity was noted.

The results of the morphological examination of the obtained intraoperative tissue revealed the following: in 17 cases (70.8%) there were histological signs of chronic inflammation and infiltration of the walls, which corresponded to the so-called "furrow" pancreatitis - that is, the micro-signs of inflammation touched only a narrow anatomic subunit under the anatomic ulcer. Comparison (or the presence of heterotyped tissue) of pancreatic tissue in the duodenal wall was detected in 6 cases (25.0%). Morphological signs of chronic inflammation of the pancreatic parenchyma were absent in 1 case.

Discussion

Thus, chronic pancreatic inflammation together with the difficulty of chyme passage through duodenum (in other words, together with duodenal obstruction formation) – "groove" pancreatitis – is one of the rare CP form which should be differentiated from duodenal caput cancer, CP itself and certain types of duodenum inflammatory necrotic lesions.

Based on our own experience, it can be assumed that, in the past, we treated such contingent of patients simply of CP, but now, on the basis of anamnesis and instrumental examination, it is possible to detect the transformation of the duodenal wall of cystic-inflammatory genesis, which significantly aggravates the disease. Given the pronounced pain syndrome in such patients, we consider it advisable to perform pancreatoduodal resection in their testimony. It should be noted that there are recommendations to treat such patients with minimally invasive interventions and/or pharmacotherapy [8, 9], however, we emphasize that pharmacotherapy should be a necessary element of preoperative patient preparation.

There is no conflict of interest.

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