REMOTE RESULTS OF SURGICAL TREATMENT OF ACUTE DESTRUCTIVE PANCREATITIS

1MD, professor Kryvoruchko I. A.,
1MD, professor Teslenko S. N.,
1PhD, Associate professor Goncharova N. M.,
1Drozdova A. G.,
1PhD Sviripo P. V.,
2Suplichenko M. V.,
2Gontar V. F.

1 Ukraine, Kharkiv national medical university, department of surgery №2, Kharkiv, Ukraine;
2Communal Healthcare Establishment «Regional Clinical Hospital – Emergency Medical Center and Disaster Medicine Center», Kharkiv, Ukraine.

Abstract. Long-term results in the period from 1 to 10 years after the operation were studied in 68 patients operated on for acute destructive pancreatitis. Previously, the following operations were performed: drainage of the gland bag and abdominal cavity - 23 patients; cholecystectomy, external draining of the choledochus, drainage of the omentum bag and abdominal cavity – 20 patients, abdome

1

nization of the pancreas, omentopancreatopexy, draining of the omentum bag and abdominal cavity - 19 patients, necrsecvestrectomy, draining the stuffing bag and abdominal cavity – 5 patients, subtotal pancreatectomy - 1 patient. Our studies show that in 45 % of patients after surgery for destructive forms of acute pancreatitis in the late period, serious complications develop, requiring either repeated surgical treatment or permanent drug correction. Diabetes mellitus develops in almost 20 % of cases after surgery for acute destructive pancreatitis; about 25 % of patients require repeated surgical intervention for false pancreatic cysts, Virsungov’s duct concrements, duodenostasis, Virsungov’s duct, hypertension in Virsungov’s duct apparently due to stenosis of its distal part.

Keywords: acute destructive pancreatitis, surgical treatment, diabetes mellitus.

Relevance. Treatment of patients who underwent surgery for acute destructive pancreatitis is a difficult problem for physicians of different specialties: gastroenterologists, endocrinologists, therapists, and surgeons [4, 6]. In the postoperative period, up to 50-60 % of patients become disabled and receives a I-II group of disability. Many foreign and domestic authors point to unsatisfactory results of surgical treatment of patients with acute destructive pancreatitis, both in the early period and in the distant period [2, 3, 6].

Objective. Improvements in the results of treatment with acute destructive pancreatitis can be achieved by systematizing, analyzing and studying the long-term results of surgical treatment, methods of diagnosis, conservative therapy and surgical interventions.

Materials and research methods. Long-term results in the period from 1 to 10 years after the operation were studied in 68 patients operated on for acute destructive pancreatitis. There were 32 men and 36 women. Previously, the following operations were performed: drainage of the gland bag and abdominal cavity - 23 patients; cholecystectomy, external draining of the choledochus, drainage of the omentum bag and abdominal cavity - 20 patients, abdominalization of the pancreas, omentopancreatopexy, draining of the omentum bag and abdominal cavity - 19 patients, necrsecvestrectomy, draining the stuffing bag and abdominal cavity – 5 patients, subtotal pancreatectomy - 1 patient.

Results and discussion. According to the classification adopted in Atlanta in 2012 [1, 5], edematous form was diagnosed in 8 patients, destructive uninfected pancreatic necrosis - in 24 patients, destructive infected pancreatic necrosis in 36 patients. According to the classification of S. A. Shalimov et al., 1990. - in 4 patients edematous form of pancreatitis was diagnosed, in 4 - fatty pancreonecrosis, in 50 - hemorrhagic pancreonecrosis, in 10 patients - purulent pancreatitis.

In the long-term period, 8 patients died in terms of 1 to 8 years, the cause of death was not associated with the postoperative operation. All patients were fully examined in a surgical hospital. A complete set of clinical, biochemical and instrumental methods of investigation was conducted (ultrasound examination).

Depending on the results obtained, we identified three groups of patients:
I group consisted of 28 patients - these are patients who in the late period feel relatively satisfactory and were not reoperated in the postoperative period. In such patients, the clinical and biochemical parameters are within the norm. But ultrasound examination revealed a diffuse contour of the gland, its structure is not uniform, there is deformation of the gland and body of the gland, the duct system is not changed.

During the operation, edematic and uninfected forms of acute destructive pancreatitis with a predominant lesion of the head and part of the gland's body were observed in this group of patients. All patients were of mild or moderate severity according to the SAPS classification. Mostly they underwent surgery - draining the stuffing box and abdominal cavity. In 50 % of patients before the operation there was an increase in the level of glycemia (7.5 - 8.0), which stabilized after the operation (Fig. 1).

The second group of patients was 19 people - these patients feel unsatisfactory after the operation: they are constantly worried about epigastric pains, nausea, severe general weakness, upset of the stool, some noted icteric sclera. In the ultrasound examination of the pancreas, the widening of the Virsungov’s duct was found in 3 patients with concrements, in 4 with false cysts, moderate enlargement of the pancreas, and deformation of the contours.

In 6 patients duodenostasis was detected, which was confirmed by X-ray examination of the passage of barium sulfate. In our opinion, this complication is most likely due to the involvement of the plexus innervating the duodenum due to the inflammatory edema caused by the action of pancreatic enzymes on the vessels and nerves of the mesentery. In biochemical parameters, the patients of this group had an increase in total bilirubin from 20.5 to 30 μmol / L, an increase in AST and ALT to 1.0-1.5 mmol / l.

Three patients were operated on the formed pancreatic cysts, internal drainage was performed - cystojuenoanastomosis was applied. One patient was operated on for repeated acute destructive pancreatitis, an acute fluid accumulation of the gland bag - external drainage was performed.

Here is a clinical example.

The patient, 49, was acutely ill after the error in the diet on October 29, 2016, was taken to the clinic where she underwent intensive sequential therapy, without significant improvement. After 10 days, the patient underwent surgery for acute destructive pancreatitis during which an infected pancreatic necrosis, an abscess of a stuffing bag was found. The postoperative period was unfavorable, the condition progressively worsened, the body temperature increased regularly to 38 ° C, nausea, vomiting, and symptoms of peritonitis appeared. Relaparotomy was performed (2 weeks after the first operation) during which two sequestrants 2x1.5 cm and 5x3 cm in the postoperative period were removed from the pancreas body in the postoperative period. The external fistula of the pancreas with a moderate discharge (50-100 ml) was formed in the patient. After 6 months, the fistula closed.

On ultrasound - found a cyst of the pancreas 7x5 cm in the projection of the body and tail.

The patient is scheduled for surgery: internal drainage of the pancreatic cyst (cystojuenoanastomosis) (Fig. 2).
In a retrospective analysis of the medical history of these patients, it was found that they were operated on for destructive infected pancreatitis, the postoperative period was very difficult (Fig. 3): 5 patients had a pancreas fistula, one patient had a bilebronchial fistula in the postoperative period, and seven patients underwent relaparotomy.

Group III (11 people) are patients who have developed diabetes mellitus after surgery: 5 patients with non-insulin-dependent diabetes mellitus, with a glycemia level of 7.0-8.0-8.5 μmol /L. Six patients had insulin-dependent diabetes mellitus. Diabetes mellitus developed almost immediately after surgery. In a retrospective analysis of the medical history of these patients, it should be noted that patients were operated on for destructive infected pancreatitis with total or subtotal lesion of pancreatic parenchyma. In the postoperative period, they underwent necrectectomy, repeated operations for a local and common retroperitoneal phlegmon. These patients had hemorrhagic and purulent forms of inflammation. At ultrasonography research at such patients: the contour of a gland is sharply deformed, and at 3 patients the tail and a part of a body of a pancreas does not appear, that testifies to their full melting during an acute attack.

**Fig. 2.** The patient is 49 years old, with a pancreas cyst, 1 year after surgery

**Fig. 3.** Scheme of long-term complications of acute destructive pancreatitis

**Conclusions.** Our studies show that in 45% of patients after surgery for destructive forms of acute pancreatitis in the late period, serious complications develop, requiring either repeated surgical treatment or permanent drug correction. Diabetes mellitus develops in almost 20% of cases after
surgery for acute destructive pancreatitis; about 25% of patients require repeated surgical intervention for false pancreatic cysts, Virsungov’s duct concrements, duodenostasis, Virsungov’s duct, hypertension in Virsungov’s duct apparently due to stenosis of its distal part. The results of pancreatic fistula treatment in patients operated on with acute destructive pancreatitis are also unsatisfactory— the average duration of their existence is 4-6 months. After the closure of the fistula, these pancreatic cysts are quite often formed in these patients, which subsequently require repeated surgical intervention.

REFERENCES


