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**COMPARATIVE ANALYSIS OF THE EARLY POSTOPERATIVE PERIOD IN  
SURGICAL DISEASES WITH PANCREATIC CYSTS**

**Nazyrov F.G. Egamov B.Yu. Nishanov M.Sh.**

Republican specialized scientific – practical medical center of surgery named after  
academician V.Vakhidov, Republic of Uzbekistan, Tashkent

**Relevance:** Postnecrotic cysts of the pancreas 60% cause various complications such as suppuration, perforation, bleeding, compression of the digestive tract, obstructive jaundice, characterized by high mortality - up to 54%[1,3] Indication for the surgical intervention depend on the cause of the cyst, the connection of the cyst with the main pancreatic duct, and the presence of complications. Surgical treatment for postnecrotic cysts remains the method of choice. Minimally invasive surgical interventions are widely used [2,4,5].The high prevalence of cystic lesions of the pancreas, the difficulty of choosing the optimal method of treatment require the creation of a rational, practical treatment algorithm [3]. Dissatisfaction with the results of treatment and a large number of complications prompt a search for a new, gold standard in the treatment of patients and the determination of the real place of minimally invasive and open surgical methods.

**Aim of the investigation:** To improve the results of surgical treatment in patients with postnecrotic pancreatic cysts.

**Materials and Methods** Considering that the main direction of the study is the improvement of therapeutic and surgical tactics for pancreatic cysts, patients were divided into two groups. The main group included 51 patients with 2014-2020 y, this group used the developed algorithm for choosing the tactics of surgical treatment for pancreatic cysts. The comparison group included 54 patients treated in 2008-2013 y.

**Results of the study:** Among the patients who underwent external drainage operations (n=65), postoperative complications developed in 14 (21.5%). Reoperation was required in 5 patients (7.7%). 3 patients died (4.6%). During the study period, the frequency of using external drainage methods for pancreatic cysts was reduced from 72.2% (39 out of 54 in the comparison group) to 50.9% (26 out of 51 in the main group). The frequency of complicated cases decreased from 28.2% to 15.4% (p=0.221), cases with repeated interventions - from 10.3% to 3.8% (p=0.012), deaths - from 5.1% to 3.8% (p=0.08).Complications of the immediate postoperative period that required reoperation, which developed in 3 cases with a fatal outcome after external drainage, were hemorrhagic complications (recurrent bleeding) and abdominal abscesses with progressive peritonitis and sepsis.

During the study period, the frequency of using internal drainage methods for pancreatic cysts increased from 18.5% (10 out of 54 patients in the comparison group) to 39.2% (20 out of 51 in the main group). Analysis of the results of internal drainage for pancreatic cysts showed that there were fewer cases with complicated early postoperative course in the main group than in the comparison group - 5% (1 out of 20) versus 30% (3 out of 10).

In the main group, there were no cases of reoperations, and in the comparison group, repeated surgical interventions after internal drainage of pancreatic cysts accounted for 30% (3 out of 10), with 1 (10%) death. There were fewer complications in the early postoperative period in the main group than in the comparison group (9.8% versus 25.9%). Reoperations were performed in 1.9% (1 out of 51) and 13.0% (7 out of 54) cases in the main and comparison groups. Mortality was lower in the main group - 1.9% (1 case out of 51) versus 5.6% (3 cases out of 54) ( $\chi^2=6.89$ ; p=0.009). An analysis of the effectiveness of treatment of patients in the main group showed that a complicated course was observed in 9.8% (5 out of 51) of cases (Table 4.3). In the comparison group, the frequency of complications was significantly lower (p=0.029). The most common systemic complication was respiratory failure:

In 18.5% (10 out of 54) cases in the comparison group and 7.8% (4 out of 51) in the main group, the complication was manifested by respiratory distress syndrome or reactive pleurisy. External pancreatic fistulas were noted in 3.8% (4 out of 105) of the total number of patients with equal frequency in the study groups. Abdominal abscesses (2.8%; 3 of 105), recurrent bleeding (2.8%; 3 of 105) and multiple organ failure (2.8%; 3 of 105). In the main group, these

complications were noted with a lower frequency than in the comparison group. Thus, repeated surgical interventions were noted in the main (1 out of 51; 1.9%) and comparison group (7 out of 54; 13.0%). In the main group of reoperations ( $\chi^2=5.06$ ;  $p=0.025$ ), there were significantly fewer. Comparative analysis of the duration of inpatient treatment (bed days) (Fig. 4.2) showed that in the comparison group the average duration of treatment was  $23.3\pm 1.5$  days, and in the main group it was  $18.5\pm 1.4$  days ( $p<0.01$ ). The statistical difference in the duration of preoperative preparation of patients -  $2.4\pm 0.5$  days in the main group versus  $3.0\pm 0.4$  days in the comparison group ( $p<0.05$ ) is not significant. Among the tactical and technical features in the treatment of painful moments in the main group of patients, it can be noted that the imposition of anastomoses between the cyst and the intestine was carried out both with the section of the small intestine mobilized according to Roux, In one patient there was an insufficiency of cystoenteroanastomosis with the formation of an external pancreatic fistula, which closed on the background of conservative treatment.

Radical operations, including distal resection of the pancreas with a cyst, were performed in 3 patients of the study groups. In 2 patients of the comparison group, postoperative complications developed (in 1 case - recurrence of suppuration and abscess under the left dome of the diaphragm, in 1 - relapse of bleeding). Both patients died in the early postoperative period due to intra-abdominal bleeding.

In the process of performing percutaneous intervention for festering cysts, after evacuation of the contents, the cyst cavity was washed with antiseptic solutions. Minimally invasive operations performed on the patients of the main group with festering cysts of the pancreas were the first stage of surgical treatment, which subsequently made it possible to carry out internal drainage and distal resection of the pancreas.

**Conclusions:** Thus, the systematization of the criteria for the severity of the course in pancreatic cysts made it possible to change approaches to the choice of treatment tactics. In its structure, forced surgical interventions with external drainage decreased from 72.2% to 50.9% ( $p=0.025$ ); the frequency of using internal drainage methods increased from 18.5% to 39.2% ( $p=0.019$ ). Analysis of the effectiveness of the proposed algorithm for choosing treatment tactics for pancreatic cysts showed that the frequency of reinterventions decreased from 13.0% to 1.9% ( $p=0.025$ ), early postoperative complications - from 25.9% to 9.8% ( $p=0.029$ ), mortality - from 5.6% to 1.9% ( $p=0.352$ ).

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