Improvement of surgical tactics in acute destructive cholecystitis

The aim of the work: to improve the quality of treatment of patients with acute destructive cholecystitis by improving surgical tactics. Materials and Methods. The work is based on the evaluation of the results of surgical treatment of patients with acute destructive cholecystitis who were treated in the surgical departments of the Clinic No. 1 of Samarkand State Medical Institute (clinical base of the departments of Surgical Diseases No. 1 and General Surgery of the Samarkand State Medical Institute) for the period from 2016 to 2020.

Depending on the treatment tactics, the patients were divided into groups. In the period from 2016 to 2017, 82 (40.8 % of 201) patients with acute destructive forms of cholecystitis underwent cholecystectomy by laparoscopic method and traditional wide access. They made up a comparison group. From 2018 to 2020, 119 (59.2 % of 201) patients with acute destructive cholecystitis underwent cholecystectomy by laparoscopic method and from minilaparotomic access. They made up the main group.

Results and Discussion. When studying the frequency of local complications in our work, we took into account only those complications that were accompanied by a significant deterioration in the patient's condition, posed a threat to his life and required active conservative or surgical treatment.

Local postoperative complications included damage to the biliary tract, bile leakage through the drainage of the abdominal cavity, massive bleeding from the abdominal cavity, infectious intra-abdominal complications. The frequency of hepaticocholedocha damage in acute cholecystitis complicated by dense infiltration during standard LCE was observed by us in 1 out of 23 patients (4.3 %) of the comparison group.

Key words: cholelithiasis; cholecystitis; cholecystectomy; laparoscopy; minilaparotomy; laparotomy; conversion; complication.
The study included all operated patients admitted to the hospital with clinical symptoms of acute destructive cholecystitis.

We excluded patients with the phenomena of mechanical jaundice or cholangitis from our study, since these complications are accompanied by a higher level of mortality and complications and may distort the data of our study.

Instrumental preoperative examination was standard.

In the comparison group, initially 43 (52.4 % of 82) patients were scheduled for cholecystectomy by laparoscopic method. Of these, only 23 patients completed cholecystectomy by laparoscopic method, and 20 patients underwent conversion, i.e. cholecystectomy was completed by traditional wide access. 39 (47.6 % of 82) patients from the comparison group had cholecystectomy planned with a wide traditional access.

The tactics of treatment of patients in the main group differed from the comparison group in that the choice of optimal surgical access during cholecystectomy was more differentiated, and the access itself was less traumatic.

Until 2018, when performing cholecystectomy for acute destructive cholecystitis, they mainly used exclusively traditional wide incisions of the anterior abdominal wall, which greatly facilitate the surgeon to perform the main stage of the operation, but still have a number of serious and well-known disadvantages – high traumatic intervention, increased risk of postoperative wound complications, unsatisfactory cosmetic results, a long period of early rehabilitation, etc. These circumstances prompted us to search for more gentle, less traumatic and at the same time convenient for the operator surgical accesses to the gallbladder and revision of the bile ducts.

As a result, since 2018, in acute destructive cholecystitis, we have begun to use widely the so-called “mini-access”, taking into account the individual characteristics for each patient.

When choosing cholecystectomy by laparoscopic method or from minilaparotomic access, we were guided by the results of preoperative diagnosis. Clinical signs of the course of acute cholecystitis were combined with ultrasound data.

In the main group of patients, cholecystectomy was initially planned for 47 (39.5 % of 119) patients by laparoscopic method, but due to the complexity of continuing the operation and according to diagnostic laparoscopy, 9 (19.1 %) patients out of 47 patients underwent conversion. The reason for the conversion is shown in Table 1.

Table 1. The reason for the conversion of laparoscopic cholecystectomy in the main group

<table>
<thead>
<tr>
<th>The reason for the conversion</th>
<th>Amount of patients (n=9)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The duration of the operation is more than 30 minutes</td>
<td>3</td>
</tr>
<tr>
<td>The cystic and common bile duct are not identified</td>
<td>3</td>
</tr>
<tr>
<td>A wide cystic duct with a thickened wall is identified, there is a danger of slipping off the clips</td>
<td>2</td>
</tr>
<tr>
<td>Bleeding</td>
<td>1</td>
</tr>
</tbody>
</table>

As can be seen from Table 1, the reason for the conversion in 3 patients was the duration of identification of the cystic duct and the main bile ducts was more than 30 minutes, in 3 more patients, due to dense infiltration in the subhepatic region, it took more than 30 minutes to identify the wall of the gallbladder. In 2 cases, according to diagnostic laparoscopy, there was a danger of clips slipping due to a wide cystic duct with a thickened wall. In 1 case, the conversion was caused by bleeding from the cystic artery with a favorable outcome.

72 (60.5 % of 119) patients, taking into account the clinical signs of the course of acute cholecystitis, the existing concomitant somatic pathology and the data of the ultrasound study, cholecystectomy was performed through a minilaparotomic access.

Thus, in the main group of patients, 38 (31.9 % of 119) patients underwent cholecystectomy by laparoscopic method and 81 (68.1% of 119) patients with acute destructive cholecystitis underwent cholecystectomy through a minilaparotomy approach.

Based on the clinical course and instrumental studies of acute destructive cholecystitis, we have developed and implemented in clinical practice an optimal therapeutic and tactical algorithm for managing patients with acute destructive cholecystitis (Fig. 1).
Results and Discussion. When studying the frequency of local complications in our work, we took into account only those complications that were accompanied by a significant deterioration in the patient’s condition, posed a threat to his life and required active conservative or surgical treatment.

Local postoperative complications included damage to the biliary tract, bile leakage through the drainage of the abdominal cavity, massive bleeding from the abdominal cavity, infectious intra-abdominal complications.

The frequency of hepaticocholedocha damage in acute cholecystitis complicated by dense infiltration during standard LCE was observed by us in 1 out of 23 patients (4.3 %) of the comparison group. The comparative characteristics of other local complications after CE by various methods in the studied groups are presented in Table 2.

Table 2. The frequency of postoperative complications in patients after cholecystectomy

<table>
<thead>
<tr>
<th>Type of complication</th>
<th>Group of patients</th>
<th>Total, n=201</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Comparison group (n=82)</td>
<td>Main group (n=119)</td>
</tr>
<tr>
<td></td>
<td>condition after LCE (n=23)</td>
<td>condition after TCE (n=59)</td>
</tr>
<tr>
<td></td>
<td>absolute</td>
<td>%</td>
</tr>
<tr>
<td>Bile flow through the drainage</td>
<td>1</td>
<td>4.3</td>
</tr>
<tr>
<td>due to the slipping of clips from the stump of the cystic duct</td>
<td>2</td>
<td>8.7</td>
</tr>
</tbody>
</table>
As follows from the data in Table 2, the frequency of local complications after performing CE in the comparison group was observed in 11 (13.4 %) of 82 patients. This indicator was significantly higher than in patients of the main group, i.e. in 2 (1.7 %) of 119 patients. In the main group of patients after LCE, after standard and non-standard MLCE, such terrible complications as damage to the hepaticocholedoch were not observed.

The analysis of methods of treatment of local complications in patients with acute destructive cholecystitis, after CE in various ways in the studied groups, is presented in Table 3.
Conclusions. 1. The proposed therapeutic and diagnostic algorithm for the management of patients with acute destructive cholecystitis allowed laparoscopic cholecystectomy and cholecystectomy from a mini-access, respectively, in 31.9 % and 68.1 % of cases in the main group.

2. The tactics of surgical treatment of patients with destructive cholecystitis, taking into account an integrated approach to the choice of access, allowed to improve the quality of care by reducing the frequency of immediate postoperative complications from 13.4 % (11 patients in the comparison group) to 1.7 % (2 patients in the main group).

LITERATURE


REFERENCES


