Miniinvasive Approach in the Complex Treatment of Tumor and Stone Etiology of Mechanical Jaundice

Nurboboyev Adkhambek Uygunovich, Makhmudova Guljamol Fazliddinovna
Assistants of Bukhara State Medical Institute

Abstract: the use of miniinvasive technologies and step-by-step methods of surgical treatment in patients with mechanical jaundice with gall stone disease can reduce mortality and the number of complications after surgery to 3.4% and 14.1%, respectively, in biliopancreatoduodenal zone tumors to 2.9% and 19.6%.

Keywords: Biliopancreoduodenal sac, mechanical jaundice, cholestasis, cholidocholithiasis, proximal and distal tumor.

Relevance. The growing incidence of hepatobiliopancreatoduodenal sac pathologies causing mechanical jaundice is a major problem of our study. To date, its treatment remains one of the issues that has not been resolved until the end of abdominal surgery. The difficulty in treating patients with mechanical jaundice is complicated by the fact that severe complications develop during the application period. It is known that the rapidly growing cholestasis, hypertension of the bile ducts, acholia causes serious functional and morphological changes in the liver, and during the last ten years, the most modern methods of treating mechanical jaundice of the larynx, the emergence of new technologies, and despite the fact that this severe contingent of the larynx effectively helps patients, the indicators of death remain Cases of death after the operation are 5.6 - 6.3% in non - malignant jaundice, and 30.3-35% in malignant jaundice, which leads to acute liver failure. Despite the use of the most modern methods of treating tumor etiology mechanical jaundice, it remains relevant that the number of patients increases. One of the causes of mechanical jaundice is a tumor of the pancreas (54-72%). In mechanical jaundice with tumor etiology, post-operative mortality cases and the development of severe complications remain problematic until now (60%). Gall-stone disease doubles every 10 years. At the same time, there are a lot of complications. Mechanical jaundice in gall-stone diseases ranges from 10.5 to 79.8%. Cholidocholithiasis is the most common cause of mechanical jaundice: from 48,8 to 91% of cases. The mortality rate in mechanical jaundice with caraway calculus etiology remains high (from 7.6% to 36%) for the development of surgical practice. One of the main causes of death is liver failure after the operation. In the Republic of Uzbekistan, the number of patients with mechanical jaundice of various etiology increased by 20% in 10 years. The results of many studies show that the jarring tactics for mechanical jaundice are highly variable and require new approaches to treatment. Considering the relevance of the problem of mechanical jaundice surgical treatment, we identified the objectives and objectives of the study.

Purpose of the study. To improve the results of treatment of patients with mechanical jaundice disease by optimizing the use of miniinvasive methods. Evaluation of the effectiveness of the procedure of cullation of miniinvasive methods in the case of chickenpox caused by the genesis of mechanical jaundice.

Materials and methods: for the purpose of verification of mechanical jaundice with different etiology, 66 patients with mechanical jaundice syndrome were investigated in 2018-2020 years. The average age of the patients was 50-70 years. The research was carried out in the clinic of "surgical diseases and intensive care" of Bukhara State Medical Institute in the concentration of I-II - surgical departments of Bukhara branch of the Republican Scientific Center for emergency ambulance. 43 (65.2%) patients with mechanical jaundice syndrome after gallbladder stone disease (cholodocholithiasis),
23 (34.8%) patients with mechanical jaundice syndrome after BPD (Biliopancreaticoduodenal place) tumors were studied.

Results: 43 (65%) out of 66 patients with gall stone disease complication was caused by mechanical jaundice, 100% by choledocholithiasis, 23 (35%) patients by mechanical jaundice BPDP tumors. The distribution of patients with BPDP tumors by nosological forms is presented in Table. (Table № 1).

Table № 1
Division of patients with biliopancreaticoduodenal sac tumors by nosological forms

<table>
<thead>
<tr>
<th>Localization of tumors</th>
<th>Nazology</th>
<th>Number of patients</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proximal tumors</td>
<td>Liver gate tumors (Klaskin tumors).</td>
<td>7</td>
<td>30.4%</td>
</tr>
<tr>
<td>Distal tumors</td>
<td>Tumors of the head part of the pancreas</td>
<td>13</td>
<td>56.5%</td>
</tr>
<tr>
<td></td>
<td>Large duodenal lobule tumors</td>
<td>3</td>
<td>13.1%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>23</td>
<td>100%</td>
</tr>
</tbody>
</table>

As can be seen from the presented results, both the complication of gall stone disease with mechanical jaundice and BPDP tumors have a tendency to increase in the number of patients with mechanical jaundice syndrome. Thus, the average difference in patients with gall stone disease during the observation period was 20%, with bpdz tumors 16%.

A significant and stable increase in the incidence was observed in patients with tumors of the head of the pancreas and was an average of 32%. Over the years, there has been an increase in the volume of the syndrome of mechanical jaundice with good quality and poor quality of Genesis, not only the absolution of patients, but also the improvement of modern diagnostic methods of examination in their detection.

For our study, 43 patients with gallbladder stone disease choledocholithiasis complication mechanical jaundice syndrome were selected. The average age of the patients was 65 ± 6 years (Figure 2). Of these, 20 (46.5%) were men, 23 (53.5%) were women. The total bilirubin level in the blood serum of patients taken was from 220 mmol/l to 560 mmol/l.
Patients with BPDP tumors were 14 men (60%) and 9 women (40%). The ratio of men and women was 1.5:1 while the average age was 64.7 ± 5.3 years. The total bilirubin level in the blood serum of the same patients is from 310 mkmol/l to 620 mkmol/L.

![Bar chart showing the distribution of bilirubin levels in patients with stone diseases and BPDP tumors.]

Duration of the appearance of jaundice in patients with mechanical jaundice syndrome

The appearance of jaundice in most patients with choledocholithiasis is associated with a characteristic onset of the disease as a result of blockade of the distal part of the common ut Yulin, often from 2 weeks to sung. In 16(70%) percent of patients with BPD tumors, the duration of jaundice is from 2 to 4 weeks.

It turns out that in about half of the patients who received bilirubin, the level was up to 265 - 350 mcmol/l. Choledocholithiasis was accompanied by acute and chronic cholecystitis in 100% of cases. Purulent cholangitis caused complications in 6 (13.9%) patients with choledocholithiasis and 7 (30.4%) patients with BPDP tumors. An additional disease was detected in 45 (68%) of patients with mechanical jaundice. At the same time, we take into account the period after the operation (Table 2), which basically indicates that they cause damage to vital organs, the severity of the underlying disease, the risk of surgery and increased. As can be seen from this table, patients with mechanical jaundice of the cardiovascular system (ischemic diseases of heart, hypertension, arrhythmias, etc.) as a additional disease much tripled. A combination of two or more diseases occurred in 7 (10.6%) patients.

![Bar chart showing the duration of jaundice in patients with stone diseases and BPDP tumors.]

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**Duration of the appearance of jaundice in patients with mechanical jaundice syndrome**

<table>
<thead>
<tr>
<th>Duration</th>
<th>Stone diseases</th>
<th>BPDP tumors</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 weeks</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>2-4 weeks</td>
<td>23</td>
<td>15</td>
</tr>
<tr>
<td>4 weeks and upper</td>
<td>12</td>
<td>3</td>
</tr>
</tbody>
</table>
Table 2

<table>
<thead>
<tr>
<th>Additional diseases</th>
<th>Amount. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stone diseases (№ = 30)</td>
<td>BPDP tumors (№ = 15)</td>
</tr>
<tr>
<td>Ischemic diseases of heart</td>
<td>9 (30%)</td>
</tr>
<tr>
<td>Heart rhythm disturbances</td>
<td>2 (6,6%)</td>
</tr>
<tr>
<td>Hypertension disease</td>
<td>5 (16,7%)</td>
</tr>
<tr>
<td>Ulcer of the stomach and duodenum</td>
<td>3 (10%)</td>
</tr>
<tr>
<td>Diabetes</td>
<td>2 (6,6%)</td>
</tr>
<tr>
<td>Patients with acute violation of blood circulation in the main brain of Anamnesis</td>
<td>2 (6,6%)</td>
</tr>
<tr>
<td>Combination of two or more diseases</td>
<td>4 (13,3%)</td>
</tr>
<tr>
<td>Others</td>
<td>3 (10%)</td>
</tr>
</tbody>
</table>

The final method of treatment for 2 (4,7%) patients with severe somatic pathology and whose side effects are extremely high risk factor is ESPCDS making and intervention in the common bile duct by the traditional method.

1-borsqich consisted of 43(65%) patients, who were divided into 41 (95.3%) patients who managed to eliminate choledocholithiasis with the help of endoscopic interventions at the first stage for treatment. After the elimination of choledocholithiasis, jaundice and cholangitis, patients underwent a second stage of treatment - cholecystectomy.

At the 2nd stage of treatment, depending on the method of cholecystectomy, patients were divided into 3 small groups.

2.1 subgroup (main) - 36 (83.7%) patients undergoing laparoscopic cholecystectomy in the second stage;

2.2 small group-5 (11.6%) patients undergoing cholecystectomy from the minilaparotomic approach;

2.3 subgroup – in 2 (4.7%) patients without choledocholithiasis elimination at the first stage, cholecystectomy and total bile duct intervention were performed in the traditional way.

**Conclusion:** the optimal combination of diagnostic methods before surgery in patients with mechanical jaundice is the consecutive application of ultrasound, EGDS, MRCPG and MSCT. The most informative way to determine the degree and nature of bile duct obstruction is MRCPG. Thus, it can replace invasive research methods (ERCPI and SLCG).

2. The main criteria that determine the severity of mechanical jaundice are the level of bilirubinemia and biochemical indicators of the functional state of the liver. With a mild degree of jaundice, the relative normalization of the level of bilirubin and hepato - renal tests takes about 5 days, with an average of 10 days, and with a severe degree 14 days after the onset of decompression.

3. Step-by-step surgical methods, including EPST in the first stage, LXE or MLXE in the second, can be used equally successfully in the treatment of patients with low traumatic, productive and cholepicholedoholithiasis.

4. In patients with cholecystocholedocholithiasis, minilaparotomic entry can reduce mortality by 6,2 percent, the frequency of complications after surgery by 18,0 percent, and the duration of stationary treatment by 20,9 percent, compared to traditional surgical treatment.

**Literature:**


7. М.А. Ахмадова, А.Т., Сохибова З.Р., Д.К. Худойбердиев, Ж.Р. Нуро. Диагностика эхинококкоза у молодежи на современном этапе. // Тибиетда янги к. 2019 й. 3(27)- стр 54-56.


21. R. R. Navruzov. Characteristics of morphometric parameters of the white rat's stomach in the early postnatal period// New day in medicine. 2 (34/3) 2021 P-17-23