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Improvement of Surgical Tactics in Cases of Acute Stone Colecystitis with Diaphragm Hernia

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Abstract The scientific work was carried out in 2017-2024 at the Bukhara branch of the Republican Emergency Medical Research Center in the I-II emergency surgery departments. Laboratory and instrumental examination methods were used to examine such patients. Clinical and laboratory methods of diagnostic algorithm, ultrasound and endoscopic examination of abdominal organs, condition of large duodenal tube, endoscopic examination of the upper part of the gastrointestinal tract, MSCT, x-ray contrast examination of the gastrointestinal tract were performed according to the instructions. Based on An in-depth comparative analysis of early and long-term results of surgical treatment has shown an improvement in the effectiveness of surgical treatment of patients with cholelithiasis associated with gastroesophageal reflux disease and hiatal hernia. In practice, the choice of tactics is carried out by the calculation method using the original formula. Thanks to the research, it was possible to optimize the tactics of surgical treatment of patients with comorbidities.

Keywords Acute calculous cholecystitis, Hiatal hernia, Cholecystectomia, Combined pathology

1. Introduction

Researchers have established a close relationship between gallstone disease, particularly acute cholecystitis, and diaphragmatic esophageal hiatal hernia. R.B. Avakyan and A. L. Guscha, in particular, caused by gastroesophageal reflux, is considered to be a natural combination of the development of diaphragmatic esophageal hernia and gallstone disease. Clinical syndromes described over many years of surgical history support these views. One of these syndromes is Saint's triad, which includes a combination of diaphragmatic esophageal hiatal hernia, gallstone disease, and diverticulosis of the colon, diagnosed in 3.2-5% of cases. The next syndrome is Kasten's triad, which occurs in 7.2% of cases and is characterized by a combination of gallstone disease, duodenal ulcer, diaphragmatic esophageal hernia. A separate combination of acute cholecystitis and diaphragmatic esophageal hernia occurs in 4.5-60% of patients [1,2,3,4,5,6].

Although conventional and laparoscopic cholecystectomy methods have been well studied and improved, the results of surgical treatment of patients with cholelithiasis still cause certain problems. According to the literature, up to 20% of patients who have had their gallbladder removed continue to have problems known as "Postcholecystectomy Syndrome" [7,10]. This syndrome includes new onset of upper abdominal pain and indigestion after cholecystectomy.

In more than 10-20% of cholecystectomy patients, the appearance of pain attacks in the abdominal cavity in the postoperative period is noted. It should be noted that more than 80% of unsatisfactory cases after cholecystectomy are not directly related to the operation itself [8,9].

The purpose of the work: to increase the effectiveness of surgical tactics and treatment in cases where acute cholecystitis and esophageal hiatus hernias are present.

2. Materials and Methods

The scientific work was carried out in 2017-2024 at the Bukhara branch of the Republican Emergency Medical Research Center in the I-II emergency surgery departments.

Laboratory and instrumental examination methods were used to examine such patients. Clinical and laboratory methods of diagnostic algorithm, ultrasound and endoscopic examination of abdominal organs, condition of large duodenal tube, endoscopic examination of the upper part of the gastrointestinal tract, MSCT, x-ray contrast examination of the gastrointestinal tract were performed according to the instructions.

Control patients were divided into 2 groups. Group I included patients with acute stone cholecystitis who were operated on at different times (cholecystectomy) but had dyspeptic complaints (n=35). These patients complained of various dyspeptic symptoms in the postoperative period: boils in the urine, abdominal pain, bitter taste in the mouth, pain under the chest after eating, belching. Diaphragmatic

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esophageal hernia (DEG) and various degrees of reflux-esophagitis and gastroesophageal reflux disease (GERD) were detected among this group of patients when the above-mentioned instrumental examination methods were performed. Clinical symptoms in these patients mostly a retrospective disease histories on the surface and current h on the surface inspections take went II is the main group patients (n =49) referred with ACD hanging came and in complaints main attack symptoms tash q ari, time dyspeptic suffering with symptoms smoked in patients, in addition, the above - mentioned instrumental inspection methods the spleen is crushed h ahead different level patients with advanced DVT separate received by difference women (36 men and 48 women) advantage it happened.

3. Results and Discussion

All patients in the control group underwent laparoscopic cholecystectomy for acute calculous cholecystitis in different clinics and at different times over the past 10 years. The diagnosis of concomitant GERD and hiatal hernia was established in 12 (35.3%) patients in the control group before LCE. In all these patients, reflux complaints increased after LCE.

The basis for choosing surgical tactics in the control group was the standard method for determining the area of the hiatal opening without taking into account the above factors.

According to statistical calculations using the Student's t-criterion, a statistically significant difference was found between the effectiveness of treatment in the main and control groups (significance level $p < 0.05$).

The reliability of the improvement in the treatment results of patients in the main group compared to the control group was statistically confirmed, in connection with which it can be said that the factors taken into account in the original formula for calculating the choice of surgical tactics in the treatment of combined pathology are of fundamental importance.

The distribution of patient by age and gender is presented in Table 1.

Table 1. Distribution of patients by age and sex

Age	Men		A roads	
	Group I	Group II	Group I	Group II
18 - 44	1	1	-	3
45 - 59	10	12	15	**17**
60 - 74	7	5	2	11
75 - 90	-	-	-	-
Total	18 (21.4%)	18 (21.4%)	17	31

The criteria for the inclusion of patients in the study were as follows: patients with clinical symptoms of GERD and esophagitis confirmed endoscopically and radiologically and diagnosed with acute cholecystitis were recruited.

I patients, 17 (48.5%) were women, 18 (51.5%) were men. Most of the patients are in the age range of 45-59 years (25 patients).

31 (62.3%) were women, 18 (36.7%) were men. Most patients from this group are in the age range of 45-59 years (29 patients).

Cholecystectomies performed in the first group of patients were performed in 25 (71.4%) Laparockopik Cholecystectomies and 10 (28.6) Laparotomic Cholecystectomies. The duration of operations is from 3 months to 5 years.

Postoperatively, antisecretory therapy was recommended in all of these patients because of discomfort and the above-mentioned complaints. Despite the fact that deep instrumental investigations were carried out, esophageal hiatus hernias was not detected. In all patients, conservative therapy of reflux esophagitis had a temporary effect. Symptoms returned after discontinuation of therapy.

Reflux esophagitis was diagnosed clinically and endoscopically in both groups of patients.

Table 2. The occurrence of dyspeptic symptoms in both groups of patients (n=84)

No	Dyspeptic symptoms	**Group I (n=35)**	**II - group (n = 49)**
1.	Vomiting	35 (100%)	49(100%)
2.	Stuttering	31(88%)	39(80%)
3	mouth to die bitterly	28(80%)	41(84%)
4.	Under sternum pain	15(43%)	18(37%)
5.	right nausea, vomiting	12(34%)	15(31%)
6.	Dysphagia	3(8.5%)	5(11%)

First group in patients dice vomiting 35(100%), mouth soreness 28 (80%), stomach pain and epigastric in the field 15 (43%) complaints of pain is attached. In these patients from cholecystectomy before also, then too above described from pain complaint they did It 's just that patients this when UTT passed with complaints in the gallbladder stones immediately and HEC operation to patients offer q is hung. These patients in most cases from surgery and then this one complaints saved.

Second group in patients He is suffering from TB in patients symptoms characteristic of acute cholecystitis have developed: these are pains in the rib cage and epigastric branch, Murphy, Ortnera -Grekova, Musse- Giorgievskogo (Frenicus symptom), symptoms When taking an external and internal history and reflux during q t – esophagitis and of the State Council different dyspeptic had symptoms these are: dice q 49 (100%), hungry 41 (84%), hunting from the hook then turn right under t 18(37%) stuttering 39(80%), dysphagia 5(11%), right nausea and increase in 15 (31%) cases observed (Table 2).

Epigastric pain and pain under the right upper quadrant occurred in 100% of cases in both groups, weakness and loss of appetite - 32(92.7%) and 42(86.3%) in groups I and II, respectively; nausea, vomiting and dyspepsia - 33(95%) and 42(86.3%); muscle tension under the right rib cage was noted in 12 (34%) and 17 (33.6%) cases; 4 (10%) and 6 (13%) symptoms of positive Blumberg symptoms were noted in

bed rest (Table 3).

Table 3. Clinical symptoms of patients with THF

ACX symbols	I group (from anamnesis) (control n = 35)	II group (main n = 49)
Right to the prey under the roof strong ogre	31(88%)	44(90%)
It's sharp epigastric in the field pain	4 (12%)	5(10%)
Muscle tension under right rib cage	12 (34%)	17(33.6%)
skin-Blumberg symptom positive	4(10%)	6(13%)
is right nausea, vomiting, dyspepsia	33(95%)	42(86.3%)
Weakness, restlessness	32(92.7%)	4 2(86.3%)
Subfebrile	10(30%)	22 (44%)

Note: -* I group and II significant differences between groups were found control groups ($r < 0.05$)

Main and e ng characteristic both 100% complaints in the group this dice mirror The next cup was met complaints these are stutter and mouth it 's bitter to die both between 80-90% in the group is dead.

Table 4 lists the types of operations performed on patients of the first group.

I group in patients done operations (n =35)

Table 4. Patients executable operations

I group in patients executable operations	I group (n =35) performed operations (n=32*).	
Type of surgery and their combinations	number of patients	
	Laparoscopic	Traditional
Cholecystectomy (n =35)	24(68.5%)	11(31.5%)
Fundoplication (n =35)	22 (63%)	13(37%)

First group above his patients as we said, from the anamnesis Cholecystectomy was performed due to cancer 35 patients from patients included. In 24 (68.5%) of them, Laparoscopic Cholecystectomy and 11 (31.5%) Laparotomic Cholecystectomy operations the spleen is crushed. Illness of history duration and disease history erase mainly, patients HEC surgery from the beginning forgiveness deadlines as follows distributed: one up to 22 (63%); 1 to 3 years – 12 (34%); From 3 to 5 years - 1 (3%) patient.

Table 5. II group in patients done operations (n =49)

II group in patients executable operations	II group (n =49) performed operations (n=32*).	
Type of surgery and their combinations	number of patients	
	Laparoscopic	Traditional
Cholecystectomy (n =49)	42(85%)	9(15%,2 conversions)
Fundoplication (n =49)	42(85%)	9(15%, 2 conversions)

Second group to his patients Because of ACD appeal disease 49 of the patients with CKD, GERD included. In 42(85%) of them, Laparoscopic Cholecystectomy and 7(15%) Laparotomic Cholecystectomy operations the grass is blue, these patients surgery tactics esophagus lengthwise reduction to the level, to the type of esophageal hiatus hernias and together surgery of diseases to existence depends.

First level esophagus lengthwise reduction has been patients surgery treatment tactics time noticeable with passing to changes face came Before fundoplication most of the time Gastropexy is combined with crurorrhaphy, however later on this interventions little by little without hanging started because of them use most of the time strong pain and to various complications take came From this besides, the esophagus lengthwise, of the operation main, esophageal hiatus hernias eliminate come not gastroesophageal reflux eliminate to do in the field of cardia is to create a cuff valve. All operations are carried out by Nissen operation A.F. In the Chernousov modification done.

Suffered from acute cholecystitis in patients one of time in itself surgery perform interventions (simultaneously). in raising the first Laparoscopik Cholecystectomies was held at the stage because this sharp process and him eliminate without doing we antireflux surgery technically our performance difficult that we count. First group in patients conventional cholecystectomy was performed in patients, at the upper level of the abdominal cavity the fact that he died suddenly because of in them fundoplication operation traditional performed with a cut. This is in 9 out of 11 patients. A s septic and infection prevention get principles based on L Cholecystectomies used all tools another replaced with tools. of the operation second stage ultrasound tools (dissectors) were used. So first performed stage cholecystectomy is increased, second stage-fundoplication.

The first group of patients included 35 patients who underwent cholecystectomy due to OCT, as we said above. 24(68.5%) of their anamnesis had Laparoscopik Cholecystectomies and 11(31.5%) had traditional Cholecystectomies. Therefore, antireflux operations were proposed and performed for these patients due to the presence of various degrees of reflux-oesophagitis, symptoms of GERD and GERD, and the effectiveness of conservative therapy was short. In 22 (63%) patients of the control group, antireflux operations were performed laparoscopically with the help of ultrasonic dissectors, and in 13 (37%) patients, they were performed conventionally.

The main group II included 49 patients with OCT and esophageal cancer, GERD, reflux esophagitis. Simultaneous operations were performed conventionally in only 9 (15%) cases. 2 out of 9 (4%) patients were converted to conventional laparotomy.

Patients with developed destructive processes of the gallbladder and surrounding tissues (gangrene, gallbladder abscess), peritonitis, clearly developed scarring process in the upper layer of the abdominal cavity were not included in the main group II.

Conventional technique of operation, standard cholecystectomy performed in group I was performed. In addition, the esophageal hiatus hernias operation of the esophagus is similar to the Nissen operation A.F. Performed in Chernousov modification. Surgical tactics in these patients depended on the presence of gallbladder destruction and complications, the degree of longitudinal shortening of the esophagus (Barrett's esophagus), and the type of esophageal cancer.

4. Conclusions

Patients presenting with acute stone cholecystitis have a symptom complex consisting of general dyspeptic symptoms characteristic of chronic stone cholecystitis and diaphragmatic esophageal hernia diseases for a long time. In the treatment of patients, in the pre-operative period, when there is a suspicion of esophageal hernia, gastroesophageal reflux disease, additional instrumental examinations should be conducted.

The sequence of operations should be maintained in patients with acute stone cholecystitis, who are referred to esophageal hiatus hernias, GERK. First of all, cholecystectomy, and in the second stage, performing a fundoplication operation, replacing the instruments with ultrasound devices.

The advantages of using laparoscopic surgical methods over traditional methods are low traumatization, as well as low probability of development of specific complications for laparotomic wounds (suppuration, formation of postoperative hernias). Also, simultaneous operations in this category of patients are more appropriate from a medical and economic point of view.

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