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ОПТИМИЗАЦИЯ ХИРУРГИЧЕСКОГО ЛЕЧЕНИЯ БОЛЬНЫХ С СИНДРОМОМ МИРИЗЗИ

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АННОТАЦИЯ

Актуальность. Синдром Мириззи является довольно редким заболеванием желчевыводящих протоков и, по данным литературы, диагностируется у 0,5-5% больных с различными формами желчнокаменной болезни. Материал и методы исследования. Проанализированы результаты обследования и лечения 62 больных с синдромом Мириззи, находившихся в отделении хирургии №1 Самаркандского филиала Республиканского научного центра экстренной медицинской помощи в период с 2012 по 2020 гг. Возраст больных колебался от 45 до 82 лет. 69,3% пациентов были пожилого и старческого возраста. Среди 62 больных преобладали лица женского пола – 46 (74,2%), а мужчин было 16 (25,8%). Результаты исследования. Анализ собственных результатов показал, что суммарный процент осложнений в ближайшем послеоперационном периоде составил 14,5%. К наиболее опасным осложнениям следует отнести повреждение МЖП, которая была в 3,2% случаев. В обоих случаях причиной повреждения ГХ было, недостаточная идентификация треугольника Кало и ГХ был принят за пузырный проток. В основной группе больных подобных ошибок не допущено. Выводы. Разработанная программа, основанная на балльной оценке у больных с синдромом Мириззи, позволяет в 3 раза уменьшить число послеоперационных осложнений, избежать повреждения желчных протоков, увеличить число удовлетворительных результатов.

Ключевые слова: синдром Мириззи, классификация, диагностика, компьютерная томография, ретроградная холангиопанкреатография, холецистэктомия, дренированием общего печеночного протока.

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MIRIZZI SINDROMI BILAN BEMORLARNI XIRURGIK DAVOSINI OPTIMALLASHTIRISH

ANNOTATSIYA

Dolzarbligi. Mirizzi sindromi o`t chiqaruv yo`llarining kam uchraydigan kasalligi bo`lib, adabiyotlardagi ma`lumotlarga ko`ra o`t tosh kasalligining turli shakllari bilan og`rigan bemorlarning 0,5-5% ida aniqlanadi. Tadqiqot materiali va usullari. Tez tibbiy yordam ilmiy markazi Samarqand filiali 1 jarrohlik bo`limida 2012 - 2020 yillar davomida bo`lgan Mirizzi sindromi bilan 62 nafar bemorning tekshirish va davolash natijalari tahlil Qilib chiqilgan. Bemorlarning yoshi 45 yoshdan 82 yoshgacha bo`ldi. Bemorlarning 69,3% ini keksa va Qari yoshdagi bemorlar tashkil Qildi. 62 nafar bemorlar orasida ayollar 46 (74,2%) nafarni, erkaklar 16 (25,8%) nafarni tashkil Qildi. Tadqiqot natijalari. Olingan natijalarning tahlili shuni ko`rsatadiki, operatsiyadan keyingi erta davrda asoratlarning umumiy foizi 14,5%ni tashkil etadi. Ing og`ir asorat sifatida magistral o`t yo`llarining jarohatlari kiritildi, bizning kuzatuvimizda ushbu asorat 3,2% (2 ta holat)ni tashkil Qildi. Ikkala holatda ham gepatikoxoledox shikastlanishiga Kalo uchburchagi elementlarining yetimlikcha identifikatsiya Qilinmaganligi va gepatikoxoledoxning o`t xalta yo`li deb baholanishi sabab bo`lgan. Asosiy guruhdagi bemorlarda bunday xatoga yo`l Qo`yilmagan. Xulosalar. Mirizzi sindromi bilan bemorlarda ball-li baholashga asoslangan, ishlab

chiqilgan dasturning Qo`llanilishi operatsiyadan keyingi asoratlar sonini 3 marotaba kamaytirish, o`t yo`llari shikastlanishlarini oldini olish va qoniqarli natijalar sonini ko‘paytirish imkonini beradi.
**Kalit so`zlar:** Mirizzi sindromi, tasnif, tashxislash, kompyuterli tomografiya, retrograd pankreatoxolangiografiya, xoletsistektomiya, umumiy o`t yo`lini drenajlash.

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OPTIMIZATION OF SURGICAL TREATMENT OF PATIENTS WITH MIRIZZI SYNDROME

ABSTRACT

Relevance. Mirizzi's syndrome is a rather rare disease of the bile ducts and, according to the literature, is diagnosed in 0.5-5% of patients with various forms of cholelithiasis. Material and research methods. The results of examination and treatment of 62 patients with Mirizzi syndrome who were in the 1st clinic of the department of Surgery No. 1 of the Samarkand Branch of the Republican Scientific Center for Emergency Medical Aid in the period from 2012 to 2020 were analyzed. The age of the patients ranged from 45 to 82 years. 69.3% of patients were elderly and senile. Among 62 patients, females prevailed - 46 (74.2%), and there were 16 men (25.8%). Research results. Analysis of our own results showed that the total percentage of complications in the immediate postoperative period was 14.5%. The most dangerous complications include injury to the IVS, which was in 3.2% of cases. In both cases, the GC damage was caused by insufficient identification of the Calo triangle and GC was mistaken for the cystic duct. In the main group of patients, such mistakes were not made. Findings. The developed program, based on scoring in patients with Mirizzi syndrome, allows to reduce the number of postoperative complications by 3 times, avoid damage to the bile ducts, and increase the number of satisfactory results.
Key words: Mirizzi syndrome, classification, diagnosis, computed tomography, retrograde cholangiopancreatography, cholecystectomy, drainage of the common hepatic duct.

Relevance. Mirizzi's syndrome is a rather rare disease of the bile ducts and, according to the literature, is diagnosed in 0.5-5% of patients with various forms of cholelithiasis. Compression of the common bile duct transforms into a stricture if surgery is delayed and the disease becomes protracted, in which periods of well-being alternate with exacerbations. Over time, the walls of the gallbladder and hepaticoholedochus come closer to full contact, which is facilitated by the presence of a large stone in the Hartmann's pocket. Under the influence of its mass, the already existing trophic disorders are aggravated, perforation (bedsore) of the walls of the gallbladder and bile duct occurs, followed by the formation of a vesicocholedocheal fistula. Through this pathological message, calculi rush from the gallbladder into the lumen of the hepaticoholedochus, the diameter of the fistula increases due to the loss of tissue in the compression zone. As a result, the narrowing of the proximal hepaticoholedochus is eliminated, the gallbladder contracts in volume, its neck, Hartmann's pocket and a significant part of the body disappear. At the end, the gallbladder resembles a diverticulum-like formation communicating with the lumen of the extrahepatic bile duct through a wide fistula. The cystic duct is absent in the overwhelming majority of observations [4, 5, 7, 11, 13, 18].

Recently, much attention has been paid to the classification of Mirizzi syndrome, methods of preoperative diagnostics, as well as various methods of surgical correction, including the use of video laparoscopic techniques. Various authors have proposed several classifications of Mirizzi syndrome. The most common classifications today are C. McSherry et al., Lai E. C. H., Lau W. Y. and T. Nagakawa et al [6, 10, 12].

Mirizzi syndrome is a difficult complication of gallstone disease to diagnose and treat. Cholecystectomy in Mirizzi syndrome often ends with intraoperative damage to the common bile duct with the formation of a defect in its wall. Mortality reaches 17%. Long-term results also remain unsatisfactory - in 20% of patients, strictures of the proximal hepaticoholedochus develop [2, 8, 14].

Surgery for Mirizzi syndrome is very complex and is referred to in the literature as a "bile duct trap". In these situations, the gallbladder is shrunken, fibrously altered, with dense infiltration in the Calot triangle. In addition, the anatomy of the bile duct is very distorted and it is very easy to mistake the common hepatic duct for the cystic duct, which can lead to inevitable trauma to the hepatic duct [3, 15]. A calculus fixed in Hartmann's pocket, compressing the bile ducts, complicates access to the Calot triangle [1, 17, 19].

Thus, Mirizzi syndrome is a complication of gallstone disease, in the diagnosis and surgical treatment of which there are a number of unresolved issues related to both the determination of the optimal therapeutic and diagnostic tactics and the use of alternative methods of treatment:

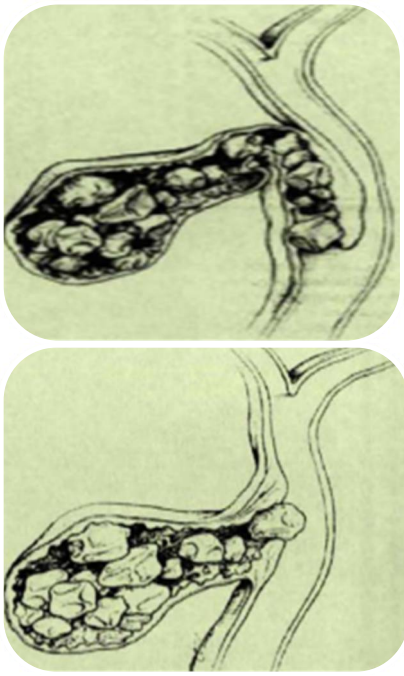
- today there is no unified generally accepted tactics regarding the diagnosis and surgical correction of the syndrome; - the results of treatment remain unsatisfactory; - high rates of postoperative complications and mortality; - there are no clear indications and contraindications for laparoscopic operations; - in the world literature there is no data on the drainage of the bile ducts using the laparoscopic technique in Mirizzi syndrome [9, 16].

Further development of algorithms for diagnostic and therapeutic measures in identifying Mirizzi's syndrome will allow avoiding a large number of injuries to the bile ducts and other vital anatomical structures, reducing the frequency of switching to laparotomy in complicated forms of cholecystitis and eliminating complications associated with impaired bile outflow.

Objective of the study: To improve the results of treatment of Mirizzi syndrome by developing rational surgical tactics depending on its type.

Material and research methods. The results of examination and treatment of 62 patients with Mirizzi syndrome who were in the department of Surgery No. 1 of the Samarkand Branch of the Republican Scientific Center for Emergency Medical Aid in the period from 2012 to 2020 were analyzed. The age of the patients ranged from 45 to 82 years. 69.3% of patients were elderly and senile. Among 62 patients, females prevailed - 46 (74.2%), and there were 16 men (25.8%).

According to the McSherry classification (1982), there were 29 (46.8%) patients with Mirizzi syndrome of type I, and 33 (53.2%) of type II. (fig. 1.).



• Type I Mirizzi syndrome - 29 (46,8%)

• Type II Mirizzi syndrome - 33 (53,2%)

Figure 1. Mirizzi syndrome according to C. McSherry classification.

Chronic calculous cholecystitis was established in 46 (74.2%) patients, acute calculous cholecystitis - in 16 (25.8%), including acute catarrhal cholecystitis occurred in 9 patients, phlegmonous - in 5, gangrenous - in 2 patients ... Choledocholithiasis was diagnosed in 36 (58.1%) patients. The majority of patients (40 or 64.5%) were hospitalized with obstructive jaundice syndrome, of which 9 (22.5%) had jaundice accompanied by acute cholangitis.

All studied patients went to the hospital at different stages of the development of gallstone disease. In 7 (11.3%) patients, an acute attack of the disease was noted for the first time, mainly with type I Mirizzi syndrome. Recurrent seizures were more common in patients with type II of this syndrome (35 patients, 56.4%). Jaundice observed in 40 (64.5%) patients, in 32 (80.0%) had a transient character and only in 8 (20.0%) was persistent. We found that the development of type I Mirizzi syndrome is characterized by a prolonged acute attack, and a long course of chronic calculous cholecystitis with periodic exacerbations is more often recorded with a cholecystocholedochial fistula.

The clinical study included the collection of patient complaints, medical history and previous abdominal surgical interventions, the presence of concomitant somatic pathology, and physical examination data.

All patients underwent laboratory tests according to generally accepted methods, including general blood and urine tests. In order to clarify the functional state of the liver, a biochemical study of blood serum was carried out: determination of the level of bilirubin (the norm is 8.5-20.5 μmol / l), the level of ALT, AST in the blood serum was also assessed (the norm of ALT is 5-37 IU (international units), AST - 5-40 IU), alkaline phosphatase (norm - women - up to 240 U / l, men - up to 270 U / l). The total protein, bilirubin, glucose, urea, and amylase were also determined. The blood coagulation time, bleeding duration, and prothrombin index were assessed. Determined the blood group and Rh factor.

All patients underwent electrocardiography, and in case of cardiopulmonary diseases, the function of external respiration was determined according to the usual method, and ECHO cardiography was performed.

The blood clotting time was determined by the Lee-White method, the duration of bleeding - according to Duke, the prothrombin index - according to the plasma thromboplastin time, the level of total bilirubin and by fractions, as well as blood glucose - according to Yendrashik; amylase - by the method of multiple dilutions of Wolgemut.

In addition to clinical and laboratory studies, in terms of diagnosis and differential diagnosis of Mirizzi's syndrome, ultrasound examination, fibrogastroduodenoscopy, endoscopic retrograde cholagiopancreatography, Magnetic resonance cholangiopancreatography (MRCP) were performed.

The instrumental method of first-line diagnostics was ultrasound, which had not only screening value, but also turned out to be necessary and sufficient for syndromic diagnosis. Ultrasound was performed according to examination techniques based on the interpretation of the generally accepted ultrasound criteria of the pathology under study - visualization of both reliable and indirect signs.

Endoscopic retrograde cholangiopancreatography (ERCP) was performed in 12 (19.3%) patients. Preoperative diagnosis with ERCP was made in 7 patients (58.3%). Among these patients, two were diagnosed with type I SM, and 5 - type II.

Magnetic resonance cholangiopacreatography, as a highly informative and non-invasive research method, made it possible to assess the state of the hepatobiliary system, in particular, the state of the intra- and extrahepatic ducts, the Wirsung duct. MRCP was produced on a Magnetom Avanto "Siemens" unit. It was performed by 7 patients (11.3%).

Tactical approaches to the choice of the method of surgical treatment of Mirizzi syndrome in the process of work we have undergone significant changes. Until 2012, we used the McSherry classification (1982), when the options for surgical intervention were determined depending on the type of Mirizzi syndrome. These patients in the amount of 36 (58.1%) were included in the control group.

Surgical treatment of patients with type I Mirizzi syndrome has its own technical features associated with the difficulty of removing an embedded calculus in the gallbladder neck.

Of 36 patients in the control group in the preoperative period, according to sonographic criteria, Mirizzi syndrome was detected in 22 (61.1%) patients. From the initial operation for these patients, the operation was performed with an open access. In 14 patients, Mirizzi's syndrome was detected during laparoscopy. Of these, 3 performed laparoscopic cholecystectomy without conversion. 11 patients underwent open cholecystectomy.

When using minilaparotomic cholecystectomy, the bottom of the gallbladder was opened, its contents were removed, and then the calculus wedged into the neck of the gallbladder was removed. In this way, we managed to remove the calculus and perform cholecystectomy in 10 patients with type I Mirizzi syndrome. If, even after opening the bottom of the gallbladder, we could not remove the wedged calculus, we made further opening of the wall of the gallbladder towards its neck

together with Hartmann's opening, which greatly facilitated the removal of the wedged calculus in 8 cases.

In 4 patients, we combined this operation technique with drainage of the common hepatic duct according to Halstead - 3, according to Vishnevsky - 1. This was due to the presence of a combination of type I Mirizzi syndrome with obstructive jaundice in this group of patients.

Conversion during minilaparotomic cholecystectomy, when Mirizzi syndrome type II was diagnosed, was performed in 17 cases, of which 2 patients had damage to the extrahepatic bile duct. In 2 cases, the II type of Mirizzi syndrome was diagnosed in the preoperative period, the operation was performed from a wide access.

The main difficulty, both in terms of diagnosis and in terms of surgical treatment, were patients with type II Mirizzi syndrome. When diagnosing this type of syndrome, we performed: in case of a defect of no more than 1/3 of the circumference of the CBD in 13 cases, plastic of the pathological fistula with the tissues of the cystic duct after cholecystectomy and external drainage of the common bile duct; with a defect of more than 1/3 of the circumference of the CBD, reconstructive operations were performed, in 4 - HepDA and in 2 - HepEA according to Ru. Out of 4 patients, in 1 case, HepDA was applied for damage to the main bile duct during an attempt at LCE. Signs of damage to the main bile duct were additional tubular structures on the gallbladder and bile leakage into the wound.

In the process of standardization of surgical tactics in Mirizzi syndrome, it became necessary to revise the existing classifications, taking into account the level of localization of the cholecystobiliary fistula, because in the classifications A. Csendes, C.K. McSherry, T. Nagakawa and their various modifications do not present the level localization of the fistula, as well as the possibility of its location in the confluence area. In our practice, in 2 cases, we encountered complex forms of type II Mirizzi syndrome, when the cholecystobiliary fistula was localized in the confluence area with complete destruction of its anterior wall. Unfortunately, in the available literature, we have not come across a description of such complex cases of Mirizzi syndrome and, accordingly, methods of their surgical correction. In this regard, in recent years (since 2016), in order to clearly work out the tactics of treatment depending on the level of lesion of hepatic choledochus, we propose a classification of Mirizzi syndrome:

Type I - no fistula; there is a compression of the common bile or hepatic duct by a calculus fixed in the neck of the gallbladder or cystic duct (in our observations - 12 patients, or 46.1%);

Type II:

"+2" type - cholecystocholedocheal: localization of the cholecystobiliary fistula distal to the confluence of the cystic duct into the common bile duct (5 patients, or 19.2%);

"+1" type - ductal: localization of the cholecystobiliary fistula at the level of the cystic duct with its destruction; there is a wide communication of the gallbladder with hepaticoholedochus (7 patients, or 26.9%);

"0" type - confluence: localization of the cholecystobiliary fistula at the confluence level (2 patients, or 7.7%) (Fig. 2.).

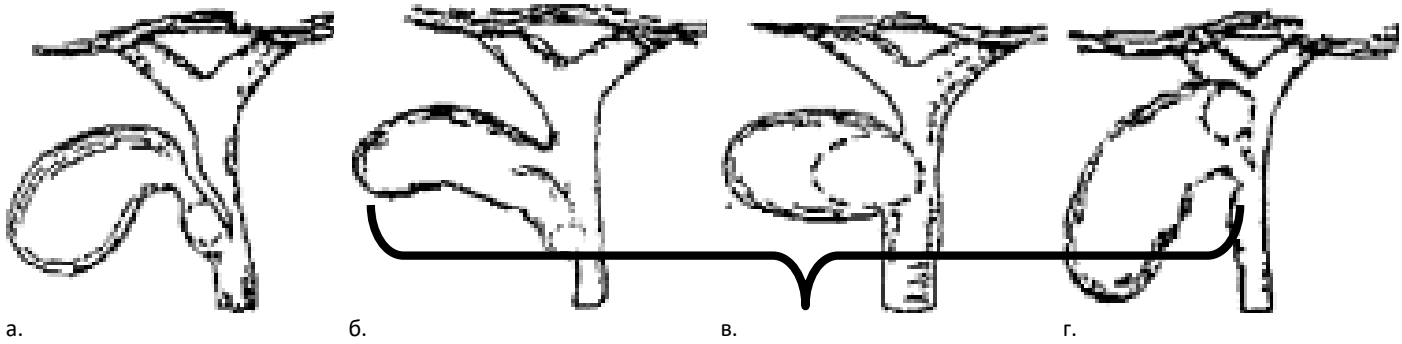


Figure 2. Classification of Mirizzi syndrome (identical to the terminology used for strictures of hepatic choledochus): a - Type I (compression), b - "+2" (choledochial) type, c - "+1" (ductal) type, d - "0" (confluence) a type.

The presented classification, in our opinion, is structurally simple and practical in the choice of tactical and technical solutions in Mirizzi syndrome.

Patients with gallstone disease complicated by Mirizzi syndrome operated on from 2012 to 2020. constituted the main group and this group included 26 (41.9%) patients. These patients were divided into 4 subgroups. Patients of the 1st subgroup underwent LCE. In this group of patients with type I Mirizzi syndrome, surgical treatment has its own technical features associated with the difficulty of removing a wedged calculus in the gallbladder neck. So, laparoscopically, Hartmann's pocket was opened and the stone removed through its lumen, followed by cholecystectomy, which was performed in 2 cases.

If laparoscopic removal of a stone wedged into the neck of the gallbladder was impossible, we made the transition to minilaparotomic cholecystectomy in 8 cases. They made up the second subgroup of the main group of patients.

In the 3rd subgroup, patients in the amount of 14 people had a high risk of damage to the main bile ducts, while it was advisable to open the gallbladder through the bottom, remove calculi from its lumen and perform subtotal cholecystectomy with external drainage of hepaticocholedochus, since they received obstructive jaundice and cholangitis.

2 patients in the fourth subgroup with "0" level of destruction of hepaticoholedochus underwent a reconstructive operation. The preference was given to high biliodigestive anastomoses "side to side" on the loop of the small intestine turned off according to Roux.

Among 62 operated patients for cholelithiasis complicated by Mirizzi syndrome, various complications were observed in 9 (14.5%) patients.

Research results. Analysis of our own results showed that the total percentage of complications in the immediate postoperative period was 14.5%. The most dangerous complications include injury to the IVS, which was in 3.2% of cases. In both cases, the GC damage was caused by insufficient identification of the Calo triangle and GC was mistaken for the cystic duct. In the main group of patients, such mistakes were not made. According to our data, the failure of BDA was found in 6.4% of observations. If BDA is formed according to Roux, then the inconsistency of the biliodigestive anastomosis, as a rule, is limited to short-term incomplete external bile leakage.

Out of 62 operated patients, the long-term results of surgical treatment were assessed in 34 (54.8%). The observation period for the patients ranged from 1 to 8 years. The average follow-up period was 4.45 ± 0.58 years. In terms from 1 to 2 years, 32 patients were traced, from 3 to 5 years 17, from 6 to 8 years -5. The distribution of patients depending on the time of follow-up in the long-term postoperative period is shown in Diagram 1.

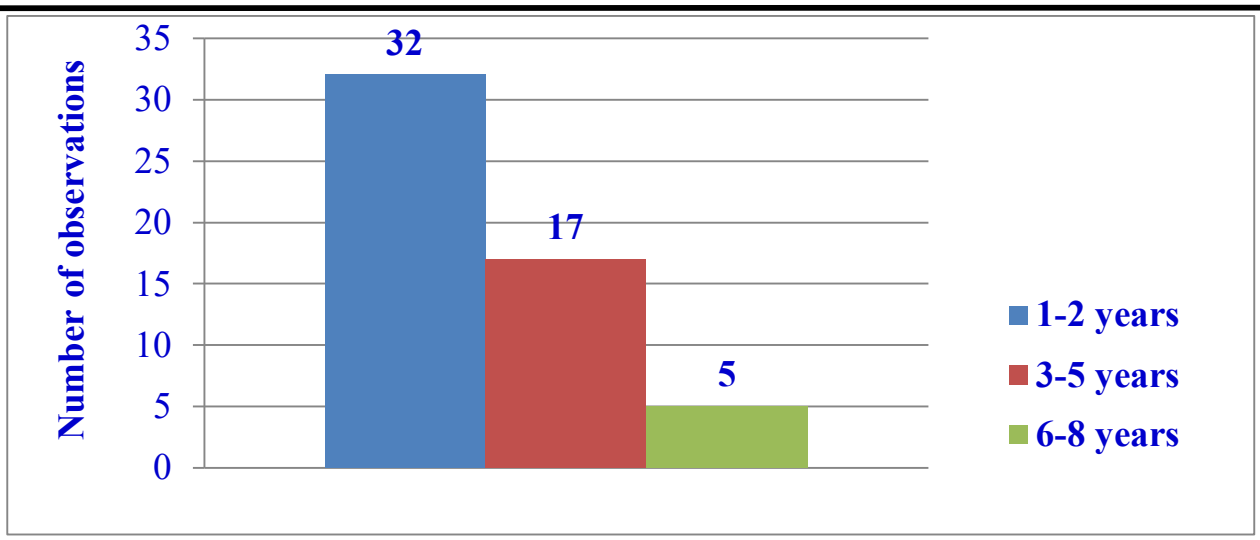


Diagram 1. The number of patients followed up at different periods of the long-term postoperative period.

From the control group, 15 (41.7%) patients were observed in the late postoperative period. Of these, complications were observed in 5 (33.3%) cases, in 4 patients after hepaticoduodenoanastomosis, reflux cholangitis was observed in the postoperative period, for which the patients were repeatedly treated conservatively. In 1 patient, after plasty of the pathological anastomosis with the tissues of the cystic duct, a stricture of the hepatic duct developed, which required repeated reconstructive surgery, the imposition of hepaticojejunostomy according to Roux.

From the main group, 19 (73.1%) patients were observed in the late postoperative period. In this group of patients, there were no complications requiring repeated surgical interventions.

Based on the comparative results of surgical treatment of patients in both groups, a program of actions for a surgeon in cholelithiasis complicated by Mirizzi's syndrome was developed. The developed program made it possible to choose the optimal method of surgery, taking into account the individual characteristics of the organism, and to improve the results of treatment.

Findings. Among the instrumental methods of preoperative diagnosis of Mirizzi syndrome, the most informative and safe method is MRCP. Its sensitivity is 85.7%, and the diagnostic sensitivity of abdominal ultrasound in SM was 67.7%. The developed classification of Mirizzi's syndrome, based on the identification of 4 types depending on the level of localization of the cholecystobiliary fistula, details the clinical and pathomorphological aspects of Mirizzi's syndrome and makes it possible to standardize surgical tactics. The developed program, based on scoring in patients with Mirizzi syndrome, allows to reduce the number of postoperative complications by 3 times, avoid damage to the bile ducts, and increase the number of satisfactory results.

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