

FEATURES OF THE CLINICAL COURSE OF ACUTE CHOLECYSTITIS IN PATIENTS WITH SUB- AND DECOMPENSATED CARDIOVASCULAR DISEASES

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✓ *Resume*

The work presents treatment and diagnosis for acute cholecystitis in patients with sub- and decompensated cardiovascular diseases. The main diseases of the cardiovascular system that affect the prognosis of acute cholecystitis have been enumerated. The role of specific biochemical markers of necrosis has been shown and the use of such instrumental techniques as ultrasonography, echocardiography, electrocardiogram, diagnostic laparoscopy has discussed. Sufficient detail is given to the criteria for selecting methods of surgical treatment for acute cholecystitis as well as contraindications and possible complications in the postoperative period.

Keywords: acute cholecystitis, echocardiography, electrocardiogram, decompensation of the cardiovascular systems.

ОСОБЕННОСТИ КЛИНИЧЕСКОЕ ТЕЧЕНИЯ ОСТРОГО ХОЛЕЦИСТИТА У БОЛЬНЫХ С СУБ- И ДЕКОМПЕНСИРОВАННОЙ СЕРДЕЧНО-СОСУДИСТОЙ ПАТОЛОГИЕЙ

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✓ *Резюме*

В работе описан лечебно-диагностический алгоритм при остром холецистите (ОХ) у больных с суб- и декомпенсированной сердечно-сосудистой патологией. Показана роль специфических биохимических маркеров некроза миокарда и методов диагностических исследований, таких как ультразвуковое (УЗИ), эхокардиография (ЭхоКГ), электрокардиография (ЭКГ), диагностическая лапароскопия. Подробно описаны критерии выбора методов хирургического лечения ОХ, а также противопоказания и возможные осложнения в послеоперационном периоде.

Ключевые слова: острый холецистит, эхокардиография, электрокардиография, декомпенсация сердечно-сосудистой системы.

SUB – VA DEKOMPETSYALANGAN YURAK-QON TOMIR KASALLIKLARI BOR BEMORLARDA O'TKIR XOLETSISTIT KLINIK KECISHI VA DAVO O'ZIGA XOSLIGI

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Maqolada sub- va dekompensatsiyalangan yurak-qon tomir patologiyasi bo'lgan bemorlarda o'tkir xoletsistit (O'X) uchun terapevtik va diagnostika algoritmi tasvirlangan. Miyokardiyal nekrozning o'ziga xos biokimyoviy markerlari va diagnostika usullari, masalan, ultratovush (UTT), exokardiyografiya (EchoKG), elektrokardiyografiya (EKG), diagnostik laparoskopiya kabi roli ko'rsatilgan. O'tkir xoletsistitni jarrohlik davolash usullarini tanlash mezonlari, shuningdek,

operatsiyadan keyingi davrda mumkin bo'lmagan asoratlarni va ko'rsatmalar batafsil tavsiflangan.

Kalit so'zlar: o'tkir xolelitsit, ekokardiografiya, elektrokardiografiya, yurak-qon tomir tizimining dekompensatsiyasi.

Relevance

Severe cardiovascular diseases (CVD) are common in acute cholecystitis (AC), especially in older patients: ischemic heart disease (IHD), hypertension (HD), cardiomyopathy, cardiac arrhythmias, acute myocardial infarction (AMI), cardiovascular -vascular insufficiency, aortic aneurysm, pulmonary hypertension [1-4]. The most urgent problem is the mutual burden of AC and various manifestations of IHD, since the proportion of the latter among all concomitant pathology in such patients reaches 60%. Thus, an understanding of the features of the diagnosis of AC in patients with severe CVD is extremely necessary for the choice of the method of surgical intervention and the improvement of treatment results.

Purpose of the study: To study the features of the clinical course and the development of treatment for acute cholecystitis in patients with sub- and decompensated cardiovascular pathology.

Material and methods

The work is based on the results of treatment of 122 patients with acute cholecystitis AC with sub- and decompensated cardiovascular pathology, who were treated at the clinic from 2018 to 2020. The age of the patients ranged from 50 to 82 years, the average age was 66.7 ± 13.6 years. Among the studied patients, the most common pathology was IHD - 47 patients (38.5%), HD stage IIb and III - 17 patients (13.9%), isolated systolic arterial hypertension (AH) stage III - 22 patients (18.0 %). Severe bilateral edema of the lower extremities against the background of chronic heart failure and pulmonary hypertension (with chronic obstructive pulmonary disease (COPD) was observed in 11 patients (9.0%), cardiac arrhythmias occurred in 7 patients (5.7%). genesis was observed in 7 patients (5.7%). According to echocardiography in 3 patients (2.5%), cardiomyopathy was revealed. Postinfarction cardiosclerosis (PICS) was observed in 8 patients (6.6%). In 111 patients (90.9%) there were 2 or more concomitant diseases. According to clinical, laboratory and instrumental data, all 122 patients were diagnosed with acute calculous cholecystitis. All patients had leukocytosis ranging from $12 \times 10^9 / l$ to $16 \times 10^9 / l$ with a shift of the leukocyte count to the left. The bilirubin level was within the normal range in 108 patients (88.5%), an increase to $50 \mu\text{mol} / L$ was found in 9 patients (74%), and over $100 \mu\text{mol} / L$ - in 5 patients

(4.1%). In the biochemical analysis of blood in 72 patients (59.0%), an increase in the level of creatine phosphokinase (CPK) from 250 to 400 IU / L (norm 25-90 IU / L) and its cardiac fraction (CPK-MB) from 80 to 120 IU / L (norm 0-12 IU / L). In 16 patients (13.1%), the troponin I level increased to 0.068 ng / ml (the norm was 0.03 ng / ml). As already indicated, all patients, given the concomitant CVD, underwent ECG and EchoCG. According to the electrocardiogram, in 17 patients (13.9%) there was III degree atrioventricular block (AV block); subepicardial ischemia of the anterior, lateral myocardial wall with ST segment inversion in leads V2-V3 was detected in 25 patients (20.5%). PEAKS was present in 9 patients (7.4%). On the ECG, such changes are detected as cicatricial changes in the myocardium, deformation of the heart muscle. ECHOKG revealed cardiomyopathy in 3 patients (2.5%); diffuse damage to the myocardium of the right ventricle (RV) and left ventricle (LV) in 66 patients (54.1%). Mitral insufficiency (MR) II degree with right-sided hydrothorax occurred in 24 patients (19.7%); reduction of the ejection fraction to 45% (norm 55-60%); degenerative changes of the aortic valve (AK) with signs of hydropericardium were detected in 17 patients (13.9%). In 10 patients (8.2%), dilatation of the left heart chambers, a significant decrease in contractility with degenerative changes in the AK and mitral valve (MV) were noted. All this requires careful analysis in predicting the outcome of surgery. According to the ultrasound data, the signs were assessed for the state of the intrahepatic bile ducts, the width of the common bile duct, the size of the gallbladder, as well as its echogenicity, structure, contours, wall thickness, the presence of calculi, the presence of fluid around the gallbladder and free fluid in the abdominal cavity.

Result and discussion

The volume of surgical intervention was determined by the general condition of the patient, the severity of CVD, the state of the bile ducts and the presence of obstructive jaundice. 44 patients (34.5%) had a high perioperative risk of cardiovascular complications; in 55 patients (45.1%) - average; in 23 (18.9%) - low. Patients who were at high and medium risk were treated with β -blockers, cardiac glycosides, diuretics, ACE inhibitors, calcium antagonists, antiplatelet agents,

anticoagulants and vasodilators. The choice of the method of surgical treatment also depended on the degree of risk of perioperative cardiovascular complications. Cholecystectomy from the traditional laparotomic approach was performed in 15 patients (12.3%). This group included patients who had access conversion during laparoscopy. Conversion of the approach was performed for the following reasons: the presence of a dense infiltrate in the gallbladder neck in two patients and bleeding from the gallbladder bed in one case. 22 patients (18.0%) had a high risk of laparoscopic cholecystectomy. The creation of pneumoperitoneum was contraindicated for them, since carbon dioxide injected into the abdominal cavity causes a number of cardio-respiratory disorders: hypoxemia, hypercapnia, respiratory acidosis, arrhythmia and circulatory collapse. Given the high risk of surgery, these 22 patients underwent cholecystectomy from the minilaparotomic approach.

Laparoscopic cholecystectomy was performed in 65 patients (53.3%). This group included patients with subcompensated cardiovascular pathology, as well as with an average and low risk of perioperative cardiovascular complications. Postoperative complications were observed in only 31 patients (25.4%). A greater number of complications were observed in the group of cholecystectomy from the laparotomic approach (a total of 18 patients (14.8%)). Mortality was observed in the same group and amounted to 2.5%. The cause of death was PE. At the present stage, in most cases of AC, laparoscopic cholecystectomy is performed [2, 4, 5, 6]. Contraindications for laparoscopic cholecystectomy in this category of patients should be based on the analysis of ECG data, ECHO-KG, troponin test and markers of myocardial necrosis - CPK and CPK-MB fraction. Some authors propose several stages for the treatment of AC in this category of patients: microcholecystostomy under the control of ultrasound of the abdominal organs, adequate cardiovascular therapy and, subsequently, cholecystectomy by the laparoscopic method. Despite the minimal invasiveness, this method has its limitations in this category of patients and is inapplicable in the gangrenous form of AC [7]. Minimally invasive methods of surgical treatment of gallstone disease make it possible to shorten the period of treatment for patients by reducing the degree of trauma of the operation and the possibility of using modern methods of anesthesia to facilitate the course of the postoperative period. Following laparoscopic cholecystectomy, minilaparotomy appears as an alternative method of treating AC. The method is minimally invasive,

there is no negative effect on the respiratory system and hemodynamics, it allows performing surgical interventions in patients with a high operational risk of cardiovascular complications, if the creation of pneumoperitoneum is contraindicated. Traditional operations remain a reserve method in the development of complications of acute cholecystitis (perivesicular abscess, gallbladder perforation, obstructive jaundice, etc.).

Findings

1. The use of minimally invasive technologies can improve the results of treatment of patients with AC against the background of concomitant cardiovascular pathology.

2. The method of choice for the treatment of acute calculous cholecystitis with concomitant subcompensated cardiovascular pathology, as well as with a low and medium risk of surgery, is laparoscopic cholecystectomy.

3. Cholecystectomy from a mini-access is considered an alternative method of treatment of acute calculous cholecystitis in patients with high risk and decompensation of the cardiovascular system.

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