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SURGICAL TREATMENT OF PATIENTS OF ELDERLY AND SENILE AGE WITH ACUTE CHOLECYSTITIS COMPLICATED BY CHOLEDOCHOLITHIASIS AND OBSTRUCTIVE JAUNDICE

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Perspective analysis of the treatment results of patients of elderly and senile age with the acute cholecystitis complicated by choledocholithiasis and obstructive jaundice has been done. The studying methods were laboratory research, US of hepatobiliary zone and organs of abdominal cavity, ERCP. Terms of preoperative preparation and operative treatment were depended on the form of acute cholecystitis and the category of physical condition severity of the patients. Therapeutic approach was minimally invasive methods of surgical treatment. The decrease of postoperative complications (14,4 %) and level of the postoperative lethality (7,8 %) has been observed due to advanced therapeutic approach.

Keywords: acute cholecystitis, choledocholithiasis, mechanical jaundice, cholecystectomy.

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Introduction. Recently, despite of the successful treatment results of the complicated forms of acute cholecystitis among patients of elderly and senile age, the problem has still a high percent of complications and postoperative lethality [3, 4, 13]. The majority of patients is somatically burdened by various concomitant diseases and, as a rule, they represent a group of patients with high operational risk in emergency surgery [6, 11]. Thereby, the development of optimal tactics of surgical treatment for this category of patients has an important practical value [2, 9, 12].

Improvement of the operative results in patients of elderly and senile age should be started with a complex approach to surgical tactics of treatment [5, 8]. The last one should define the urgency, sequence, volume of medical-diagnostic actions, and also the performance of endoscopic and minimally invasive methods of operations taking into account patients' physiological condition severity [1, 7, 10].

Research purpose was the results improvement of surgical treatment of patients of elderly and senile age with acute cholecystitis complicated by choledocholithiasis and obstructive jaundice.

Materials and methods. This work is based on the results analysis of surgical treatment of 76 patients of elderly and senile age (100 %) (according to WHO criteria) with acute cholecystitis complicated by choledocholithiasis and obstructive jaundice. Patients had been treated in the surgical branch of Republic hospital №2 – Emergency Center of medical aid of Yakutsk since 2004 to 2010 (tab. 1).

The majority was 47 females (61,1 %), 29 males (38,9 %). Most of the patients of elderly and senile age had revealed concomitant diseases: cardio-vascular and pulmonary systems pathology.

The duration of obstructive jaundice varied from 2 till 15 days. In patients with III and IV category of severity, the duration of obstuctive jaundice was from 7 – 14 days and more than 14 days.

Clinical data and US results have revealed the morphological forms of acute cholecystitis: catarrhal form – 30 (39,4 %); destructive – 46 (60,6 %) (tab. 2).

ERCP has been done in 35 patients of elderly and senile age (46 %), 13 patients (37,1 %) from them have showed plural choledocholithiasis.

Medical-diagnostic tactics was based on the advanced assessment card of the condition severity for patients with acute cholecystitis complicated by obstructive jaundice. It has allowed to make optimal volume of minimally invasive surgical interventions on the gall bladder and extrahepatic bile ducts (ERCP, EPS with lithoextraction, microcholecystostomy under ultrasonic control, LC, cholecystectomy from mini access) depending on the form of acute cholecystitis and the category of condition severity (tab. 3).

ERCP has been done in 35 patients of elderly and senile age (46 %), 13 patients (37,1 %) have been revealed plural choledocholithiasis.

Results and discussion. Operative interventions were of stage character at catarrhal form of acute cholecystitis, complicated by choledocholithiasis and obstuctive jaundice in 30 patients of elderly and senile age. There were 3 cases of wide laparotomy because of inflammatory infiltration of tissues and technical difficulties during operation. Postoperative complications took place in 4 patients. The fatal outcome has happened in 1 patient with IV category of state severity in the postoperative period because of the liver-renal insufficiency.

The least quantity of patients of elderly and senile age – 4 (8,6 %) were among I category of condition severity and destructive form of acute cholecystitis, complicated by choledocholithiasis and obstructive jaundice. The prevailing majority were 42 (91,4 %) patients with II, III, IV category of severity. 22 patients with I and II category after 6 – 12 hour preoperative preparations carried out one-stage correction of cholecystitischoledocholithiasis from mini access. There was minimum quantity of postoperative complications among this group of patients. No lethal outcomes have been observed. 17 patients with III category of state severity have been done microcholecystostomy under US control for removal of the bile hypertension. Cholecystectomy has been done from miniaccess in a 24-48 hours after endoscopic corrections of choledocholithiasis. Wide laparotomy conversion has happened in 2 cases. 1 patient died of acute cardiovascular insufficiency.

7 patients were of IV category of physiological condition severity. Due to severe condition, this group of patients have been done microcholecystostomy with the subsequent endoscopic correction of choledocholithiasis. After such method of treatment lethal outcomes have been observed in 4 cases.

According to the analysis of postoperative complications and lethality, it is necessary to note that they have been predicted. From 76 patients of elderly and senile age with acute cholecystitis complicated by choledocholithiasis and mechanical jaundice, postoperative

complications have been observed in 11 patients (14,4 %): suppuration of the postoperative wound - 1 patient; hematoma of gall bladder bed - 1 patient; hypostatic pneumonia - 2 patients; sharp cardiovascular insufficiency - 3 patients; liver-renal insufficiency - 3; sharp pancreatitis, edematic form - 1 patient. 6 patients (7,8 %) died from expressed endotoxicosis of inflammatory intoxication and cholemy, led to cardiovascular and liver-renal insufficiency.

Conclusion. Thus, patients of elderly and senile age are a special group, demanding special diagnostic and medical approach. The performance of stage tactics of treatment with the minimally invasive surgical interventions is more appropriate. Microcholecystostomy under US control is necessary in the destructive form of acute cholecystitis in patients with IV category of severity at the first stage performance. Microcholecystostomy creates conditions both for removal of the bile hypertension in the gall bladder and also cholestasis through cystic duct.

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Table 1

Distribution of patients by age and severity categories

Age, Years	Total number of patients n(M±m%)	Including: category of state severity n(M±m%)			
		I	II	III	IV
60-69	55 (72,4±5,1)	12 (92,3±7,3)	29 (85,3±6,0) *	10 (50,0±11,2)	4 (44,4±16,5)
70-79	15 (19,8±4,5)	-	1 (2,9±2,8)	9 (45,0±11,1)	5 (55,6±16,5)
80 and elder	6 (7,8±2,7)	1 (7,7±2,7)	4 (11,8±5,5) *	1 (5,0±4,8) *	-
Total	76 (100,0)	13 (100,0)	34 (100,0)	20 (100,0)	9 (100,0)

*-Differences are statistically significant in comparison with I category of severity (p <0,05)

Table 2

Distribution of patients by the morphological form of gall bladder inflammation and severity categories

Form of Gall bladder Inflammations	Total number of Patients n (M±m %)	Including: category of physiological condition severity n (M±m %)			
		I	II	III	IV
Catarrhal	30 (39,4±5,6)	9 (69,2±12,8)	16 (47,0±8,5)	3 (15,0±7,9)	2 (22,2±13,8)
Phlegmonous - gangrenous	46 (60,6±5,6)	4 (30,8±12,8)	18 (53,0±8,5)	17 (85±7,9)	7 (77,8±13,8)
Total	76 (100,0)	13 (100,0)	34 (100,0)	20 (100,0)	9 (100,0)

Table 3

Improved medical tactics

The form of acute cholecystitis	Diagnostics	Severity category	Medical tactics
Catarrhal	Physical examination US, ERCP	I II	2-stages medical tactics 1. EPS + LE 2. LC or CMA in the delayed order
		III	Preoperative preparation in intensive care department during 12-24 hours. 1. EPS + LE; 2. While condition category decrease of LE or CMA in the delayed order
		IV	Preoperative preparation in intensive care department during 24-48 hours. EPS + LE
Phlegmonous - gangrenous	Physical examination US, ERC	I II	Preoperative preparation during 6-12 hours One-stage correction cholecystecholedocholithiasis CMA + CLT + choledochitis drainage
		III	Intensive therapy in intensive care department during 12-24 hours ·Microcholecystostomy; ·EPS + LE; CMA + CLT + choledochitis drainage in category severity decrease
		IV	Intensive therapy in intensive care department during 24-48 hours ·Microcholecystostomy; EPS + LE

Notes: LC – laparatomy cholecystectomia, CMA – cholecystectomia from mini access, CLT – choledocholititomy, ERC – endoscopic retrograde cholangiopancreatography, EPS – endoscopic papillosphincterotomy, LE – lithoextraction, US – ultrasonic examination