QUALITY OF LIFE IN PATIENTS WITH CHOLELITHIASIS IN THE LONG-TERM PERIOD AFTER CHOLECYSTECTOMY

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ABSTRACT

The purpose of the research. To evaluate the quality of life indicators in patients with cholelithiasis in the long-term period after cholecystectomy with various surgical options and the course of the disease (latent or symptomatic) and compare them with the quality of life indicators in people with cholecystolithiasis.

Materials and methods. In an open clinical study, 170 patients with GI were examined, 60 of them were operated on for GI, 110 patients had cholecystolithiasis. In 1/3patients with GI, the disease was asymptomatic, in 2/3 — with clinical manifestations. To assess the quality of life, a validated questionnaire specific to patients with GI was used Gallstone Impact Checklist.

Results. Among patients with gastrointestinal tract who had undergone cholecystectomy who sought outpatient help from a gastroenterologist, the quality of life was significantly worse on the nutrition scale (26.0 ± 2.8points) and the overall score (89.0 ± 9.6 points) than in patients with gallstones (16.5 ± 2.2 and 61.0± 6.8 points, respectively, $p < 0.05$). Quality of life indicators in GI patients operated onfrom the mini-access (total score 83.6 ± 13.7 points), did not differ from those after laparoscopic cholecystectomy (85.0 ± 10.9 points, $p > 0.05$). In those patients with GI in whom the disease was asymptomatic before the operation, the quality of life (by the total score) decreased more significantly (by 29.8%) compared with patients with GI in whom the disease was clinical before the operation (by 4.1%), when compared with the total score in all examined patients with GI.

Conclusions. The quality of life in patients with GI in the long-term period after cholecystectomy was significantly worse according to separate scales of the GIC questionnaire than in patients with gallstones, regardless of the type of surgery (mini-access or laparoscopic). At the same time, in patients with a latent course of GI before surgery, the quality of life is significantly worse on all scales than in patients with clinical symptoms before surgery.

Key words: *gallstone disease; quality of life; cholecystectomy.*

INTRODUCTION

The obtained results demonstrated the great possibilities of this method in clinical practice. Assessment QOL of patients with CH, as in general in gastroenterology, is used to assess the effect of the disease on the main components of the patient's vital activity, the development of prognostic models, economic calculations, evaluation of the effectiveness of various methods and treatment regimens of CH. All this is especially relevant at the present time, when cholecystectomy ranks second in urgent surgery, second only to appendectomy. At the same time, surgical treatment often does not lead to the expected elimination of the symptoms of the disease, which reduces QOL, and forces the patient to seek medical help.

Various types of questionnaires are used in QOL studies in patients with CH: visual and analog scales (Likert scale); general type questionnaires (MOS SF-36, etc.); specific questionnaires (Gallstone Impact Checklist, Gastrointestinal Quality of Life Index (GIQLI)). The GIQLI questionnaire is specific for patients with any gastroenterological pathology, and not only for patients Housing and communal services. The Gallstone Impact Checklist was created in 1996 by M. Russell et al. with the help of the impact method, which made it possible to include in it the most important questions for patients Housing and Communal Services. A. G. Beburishvili et al. (2003) a Russian-language specific questionnaire was created for patients with CH but we found no data on a comprehensive study of its reliability and validity.

The aim of our study was to assess the quality of life in patients with CH in the long-term period after cholecystectomy with various options for surgical intervention and the course of the disease (latent or symptomatic) and compare them with the quality of life in non-operated CH patients.

MATERIAL AND METHODS

As part of the clinical study, 170 patients with GI were examined, including 140 patients who sought outpatientcare from a gastroenterologist, and 30 patients with CH who were hospitalized in a surgical hospital for surgical treatment for this disease. Of the examined patients, 60 people were operated on for CH, 110 patients had cholecystolithiasis. The average age of patients was 59.0 ± 0.6 years (in men — 58.6 ± 1.4, in women — 59.7 ± 0.6 years). Prescription of the disease Housing and communal services averaged 8.9 ± 0.32 years. Prescription cholecystectomy for CH — 7.5 ± 0.54 years. In 34.7% of patients (59 people), the disease was asymptomatic, in 65.3% (111 people) — with clinical manifestations. The group of patients who underwent cholecystectomy from mini-access was 34 people, laparoscopic cholecystectomy — 26 people. The groups did not differ in age (58.4 ± 0.8 years in

patients with open and 59.7 ± 1.3 years —with laparoscopic cholecystectomy), the prescription of surgical intervention (8.3 ± 0.7 and 6.9 ±0.8 years, respectively) and the number of patients with latent (10 and 9 people) and symptomatic the course of the disease before surgery (24 and 17 people , respectively).

The examination included: an objective examination of patients, a biochemical blood test, filling out an outpatient card and a questionnaire for the study of QOL. The diagnosis of CH was confirmed by ultrasound examination of the gallbladder. In operated patients with CH, a variant of the course of the disease (latent or symptomatic) was evaluated before cholecystectomy. The Gallstone Impact Checklist (GIC) questionnaire, validated by us, was used to study QOL. The questionnaire consists of a digital scale of the overall assessment of your health, visual scale of general assessment of physical and emotional health, four clinical scales (pain, dyspepsia, emotions, nutrition) and the overall score of the questionnaire as the sum of the scales. A higher GIC score corresponds to a greater severity (significance) of the problem and a worse quality of life. Statistical processing of the results was carried out using SPSS (11.0) programs. Odds Ratio (Odds Ratio — OR) was determined by conjugacy tables.

RESEARCH RESULTS AND THEIR DISCUSSION

The groups of operated and non-operated (with cholecystolithiasis) patients with CH were comparable in age, the duration of the disease, the presence of concomitant pathology, the number of patients with symptomatic and asymptomatic CH ($p > 0.05$ in all cases). The average indicators of QOL for the entire group of examined patients with CH were: on the pain scale of 17.6 ± 1.4 points, on the dyspepsia scale — 19.5 ± 1.5 points, on the emotion scale — 18.1 ± 1.3 points, on the nutrition scale — 21.9 ± 1.5 points, the average value of the total score was 77.1 ± 4.7 points. Among the operated patients with CH in the long-term period after cholecystectomy, the overall assessment her health was "bad" and "unimportant" more than 2 times more common than among non-operated patients with CH: OR = 2.06 (95% CI 1.1 – 4.2, $p < 0.05$). Assessment of general physical health by 5 points or less among patients with CH in the long-term period after cholecystectomy was more common more than 2 times more often than among non–operated CH patients: OR = 2.45 (95 % CI 1.2 - 5.0, $p < 0.05$). In persons with cholecystolithiasis, the average value of overall emotional health was significantly higher, than in operated patients with GI (5.6 ± 0.18 and 5.1 ± 0.21 points, respectively, $p < 0.05$).

In our study, QOL in patients in the long-term period after cholecystectomy compared with patients with gallstones was significantly worse on the scale of nutrition and overall score. On the scale of the total score in patients with CH in the

long-term period after cholecystectomy, the average value was 89.0 ± 9.6 and 61.0 ± 6.8 points in non-operated patients; on the nutrition scale — 26.0 ± 2.8 and 16.5 ± 2.2 points, respectively ($p < 0.05$). The average values on the other scales did not differ significantly: on the pain scale — 16.4 ± 2.3 points in individuals in the long-term period after cholecystectomy and 13.5 ± 1.8 points in non-operated patients with CH; on the dyspepsia scale — 19.4 ± 2.6 and 15.9 ± 2.1 points; on the scale of emotions — 24.5 ± 3.1 and 17.4 ± 1.7 points, respectively ($p > 0.05$).

During the clinical examination of patients, we evaluated the variant of the clinical course of CH — latent or symptomatic. It was found that in non-operated patients with symptomatic CH, the QL level was significantly reduced on all scales of the GIC questionnaire compared with patients with asymptomatic CH. The values according to the GIC questionnaire scales were equal: pain — 20.7 ± 2.3 points in patients with symptomatic CH and 11.8 ± 2.4 points in patients with latent GI; dyspepsia — 19.1± 1.9 and 13.9 ± 2.5 points, respectively; emotions — 23.3 ± 2.2 and 15.7 ± 2.0 points; power supply — 20.4 ± 2.4 and 11.5 ± 2.4 points; the total score is 83.5 ± 7.3 and 53.0 ± 7.1 points, in all cases $p < 0.05$. This confirms the influence of the symptoms of the disease not only on the physical health of patients, but also on their emotional and social well-being. We appreciated QL among patients who sought outpatient help from a gastroenterologist for pain and dyspeptic syndromes after a cholecystectomy for CH in the long term. Their QOL indicators did not have significant differences in the two variants of the course of CH before surgery: neither with symptomatic (total score 80.3 ± 7.9 points), nor with a latent (100.1 ± 18.4, $p < 0.05$) current.

However, when assessing QOL in individuals with an asymptomatic course of the disease, it was revealed that in operated patients with a latent course of the disease before surgery, QOL was significantly worse on all scales, except for the dyspepsia and nutrition scale, compared with non-operated patients with an asymptomatic course of GI. N. V. Litvinova et al. (2009) also revealed an increase in the frequency of biliary pain and a decrease in QL in operated patients with CH with an initially asymptomatic course of the disease.

In patients with GI in the long-term period (after 3-7 years) after cholecystectomy, QOL indicators were reduced compared to patients with cholecystolithiasis, regardless of the type of surgical intervention (from mini-access or laparoscopic cholecystectomy). The average indicators of QOL in patients with CH after cholecystectomy from mini-access or laparoscopic were: on the scale of emotions — 23.6 ± 4.2 and 26.9 ± 4.5 points , respectively; on the scale of dyspepsia — 17.5 ± 3.8 and 19.8 ± 3.1 points; on the scale of nutrition — 25.7 ± 4.0 and 24.2 ±

4.1 points; on the scale of pain — 16.8 ± 3.1 and 14.1 ± 3.1 points; total score — 83.6 ± 13.7 and 85.0 ± 10.9 points, in all cases $p > 0.05$.

J. M. Quintana et al. (2003) also found no significant difference between the quality of life of patients with CH underwent cholecystectomy from mini-access or laparoscopic. S. V. Lebedev et al. (2003) when comparing the long-term results and QOL parameters assessed by the SF-36 questionnaire, 540 patients with CH after various types of cholecystectomy also did not reveal the advantages of laparoscopic over mini-access cholecystectomy.

Among the CH patients examined by us was a specific group of 30 people examined by us in the surgical department 2 to 3 days before cholecystectomy for CH. It was found that the level of QL in patients with CH examined in the preoperative period was significantly lower on all scales of the GIC questionnaire, except for the nutrition scale, compared with patients Housing and communal services receiving planned conservative therapy, while the greatest contribution was made by the characteristics of the pain syndrome, which confirms the validity of surgical intervention.

A large number of studies of domestic and foreign studies indicate a decrease in QOL in patients with CH after surgical treatment. J. M. Quintana et al. (2003) revealed that in patients with asymptomatic course of CH 3 months after cholecystectomy, there is no improvement in QOL. B. B. Mentes et al. (2001) note a more significant improvement in QOL after cholecystectomy in patients with symptoms CH before surgery compared with persons with latent disease before surgery. L. B. Lazebnik et al. (2003) found that in patients with postcholecystectomy syndrome, QL indicators are reduced on all scales of the Nottingham Health Profi le questionnaire compared with patients with latent CH. A. A. Ilchenko and EV. Bystrovskaya also noted that QL after cholecystectomy in patients with reduced contractile function of the gallbladder before surgery is better, than with preserved function, for example, patients with a "disconnected" gallbladder are less likely to develop PES. N. V. Litvinova et al. (2009) also proved a decrease in QL in operated patients with CH with an initially asymptomatic course of the disease.

Thus, when analyzing the data obtained by us and the results of studies by other authors, it can be concluded that dyspeptic and pain syndromes occur in patients with a latent course of the disease before surgery in the long-term period after cholecystectomy. The clinical symptoms of these disorders require appropriate rehabilitation measures, including conservative drug therapy . V. A. Petukhov et al. (2002) examined patients with CH (operated, underwent extracorporeal lithotripsy and refused any type of treatment). In patients with CH QOL and the external

secretory function of the pancreas were evaluated (by the content of elastase-1 in feces) before and after enzyme replacement therapy with microspherical preparation creon. As a result of the study, it was proved that cholecystectomy does not eliminate the external secretory insufficiency of the pancreas in CH, which occurs against the background of violations of the synthesis and excretion of bile acids. The authors also showed that adequate enzyme replacement therapy with creon significantly improves all indicators of QOL with any method of treatment of CH and reduces "dependence" patients from a strict diet. When assessing the dynamics of quality of life indicators against the background of creon treatment, a significant improvement was noted on all scales in patients with biliary-dependent pancreatitis.

CONCLUSION

Thus, in the long—term period after cholecystectomy, patients with gastrointestinal tract who have applied for outpatient help to a gastroenterologist are primarily concerned about dietary restrictions, emotional problems (restrictions in exercise, feeling sick) are in second place, followed by dyspeptic phenomena. Based on this, it should be recommended to pay more attention to rationalizing the nutrition of patients with postcholecystectomy disorders on an outpatient basis: fractional nutrition with gradual inclusion of sufficient fat (up to 30% caloric content daily ration) and proteins, complex carbohydrates.

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