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**CHANGES IN THE CHARACTERISTICS OF THE GALLBLADDER  
IN PATIENTS WITH CHRONIC CHOLECYSTITIS AND COPD**

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Different authors [2, p. 698] describe the development of gastric ulcer, gastric and duodenal erosions, chronic gastritis, duodenitis, reflux esophagitis and sliding hiatal hernia, duodenogastric reflux, changes in the liver, inflammation of the biliary tract and pancreas in the patients with chronic inflammatory diseases of the lungs and bronchi [4, p. 323]. Chronic acalculous cholecystitis (CAC) combined with chronic obstructive pulmonary disease

(COPD), according to some authors, is known for the prevalence of aseptic inflammation in the gallbladder (GB), interrelation of exacerbations with COPD exacerbation [3, p. 2689], more torpid, compared to COPD, and atypical course with less intensive pain syndrome, prevalence of dyskinesic phenomena over the inflammatory ones with formation of hypokinetic dyskinesias of the GB [1, p. 129].

**Material and methods.** 92 patients were involved in the study: 30 patients with COPD (1st group), 30 patients with COPD of comorbid CAC in the acute phase (2nd group), 32 patients with CAC in the acute phase (3rd group) and a control group – 30 practically healthy individuals (PHI) of the respective age. Ultrasonographic testing of the liver, the GB, and the pancreas was carried out in 100% of patients by means of an ultrasound scanner «Au-4 Idea» (Biomedica, Italy).

**Results.** Exploring the functional status of the gallbladder and sphincter apparatus of hepatobiliary system, during duodenal intubation typical features for changes of gallbladder dyskinesia were defined in all groups of patients. In particular, the duration of the first phase, which indicates that the basal secretion of bile in patients of the 3-rd group exceeded the rate in the practically healthy people 42,5% more ( $p < 0,05$ ), while in patients of group 2 – the results was the opposite. The phase was shorter 23,5% less ( $p < 0,05$ ). Changes of patients in the 1-st group had a downward trend ( $p > 0,05$ ). Our attention was attracted to the changes of the number of secreted bile: in all monitoring groups were found a significant increase in the volume of secreted bile, which exceeded the rate in respectively 1,9, 1,6 and 2,6 times ( $p < 0,05$ ). In patients of the 1-st – 3-rd groups probable increase in the volume of secreted bile was also found, respectively in 3,4, 4,3 and 4,0 times ( $p < 0,05$ ) compared with normative data. Evidence of gallbladder dyskinesia in patients with chronic acalculous cholecystitis was the changes found when analyzing the data of the 4-th phase of duodenal intubation (gallbladder contraction). In particular, the duration of the 4-th phase in patients of the 1-st– 3rd groups was significantly higher than in practically healthy people group, respectively in 1,7, 2,1 and 1,9 times ( $p < 0,05$ ), indicating the presence of hypokinetic gallbladder dyskinesia.

These data of duodenal intubation confirm the results of ultrasonographic examination of the gallbladder with the load of tryout breakfast by the standard method. According to the results obtained in patients of the 2-nd and the 3-rd groups, was established probable increase in size of the gallbladder: length – 43,2% and 25,7%, respectively ( $p < 0,05$ ), width – 29,2% and 17,9% ( $p < 0,05$ ), respectively, while the changes in the length of the gallbladder in patients of the 1-st group were unlikely, and the width was also higher than in

the practically healthy people group in 13,6% ( $p < 0,05$ ). In patients of the 2-nd and 3-rd groups were found compression and thickening of the gallbladder wall, particularly in patients of the 2-nd group in 3,1 times, the 3-rd group in 2,9 times ( $p < 0,05$ ).

Results of the study of the duration of the latent period of gallbladder contraction coincide with the data of duodenal intubation and indicate to its prolongation in patients of the 1-st, the 2-nd and the 3-rd groups respectively in 1,5, 2,0 and 1,8 times ( $p < 0,05$ ).

**Conclusions.** The findings, which have been obtained, allow us to state that more severe COPD causes higher degree of gallbladder hypokinetic dysfunction, biliary type hypertonic dysfunction of Oddi's sphincter, the activity in inflammatory process in the gallbladder, besides, the risk of gallstone formation, with predominant bile pigments and calcium in them, is bigger.

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