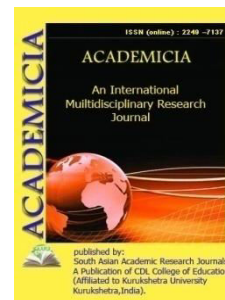




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**COMPARATIVE EVALUATION OF THE RESULTS OF THE
 APPLICATION OF GALLERY ORPTION IN PATIENTS WITH
 MECHANICAL JAUNDICE MALIGNANT ETIOLOGY**

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ABSTRACT

*To carry out a comparative analysis of the cytokine profile, apoptosis of lymphocytes, SMP, biochemical parameters of blood and the chemical composition of bile using bile absorption in patients with obstructive jaundice of malignant etiology. **Material and research methods:** In the surgical department of the Multidisciplinary Clinic of the Center for Advanced Training of Medical Personnel, the clinical base of the TMA, 41 patients with obstructive jaundice of malignant etiology at the age of 33 to 84 years were examined (62.7 ± 2.1). Of these, 26 (63.4%) are men and 15 (36.6%) are women. All patients were divided into 2 groups: main and control. The main group consisted of 27 patients, and the control group 14. All patients, regardless of the localization of the tumor process, underwent PTCG with PTCS. The main group of patients after PChS used bile absorption. After that, we made a comparative assessment of the results. **Results** A comparative assessment of the results of the study of bile and blood in patients of the control and main groups showed that the use of bile absorption led to an improvement in the chemical composition of bile, a decrease in endogenous intoxication in blood serum and bile, and restoration of the functional state of the liver. The patients of the main group showed more distinct positive changes, i.e. the activity of ALT and AST decreased over a shorter period of treatment than in the control group. The concentration of bilirubin in bile on the 14th day decreased by 1.3 times (to 47.6 ± 5.0 in the main group and to 92.16 ± 7.7 in the control) ($t = 4.85, p < 0.05$) ... The content of IL-6 in blood and bile in patients of the control and study groups changed comparable to TNF- α . In patients of the main group, this indicator in the blood decreased by 75.7%, and in the control group - by 64.4% from the initial level. The concentration*

of SMP on the 14th day, as well as TNF- α , after the use of bile absorption in patients of the main group decreased by 1.2 in bile and 1.4 times in blood. **Conclusions** The restoration of the synthesis of fatty acids in the liver from cholesterol led to an increase in the concentration of fatty acids in bile and a decrease in the concentration of cholesterol after 8 days of CCS. But until the end, the patients of this group did not receive the desired effect from the therapeutic measures. This prompted us to search for new methods of treatment and detoxification methods in breast cancer patients with severe endogenous intoxication.

KEYWORDS: Tumors Of The Biliopancreatoduodenal Zone, Obstructive Jaundice, Endotoxemia, Percutaneous Transhepaticcholangiostomy, EMS, TNF-A, Interleukin-6, Bile Absorption.

INTRODUCTIONS

Obstructive jaundice (MJ) is one of the most severe complications of diseases of the biliary system. Clinical manifestations and morph functional changes in the liver with breast cancer depend on the degree and duration of violations of the patency of the main biliary tract [1,2,4,5,7,9].

Timely diagnosis of the genesis and treatment of breast remains an urgent problem to this day. This is due to an increase in the number of patients with breast complications and a high level of postoperative mortality, from 7.2 to 45% [3,6,8,10,12,15].

Malignant neoplasms are most often the cause of breast in diseases of the organs of the biliopancreatoduodenal zone (BPDZ) [13, 14].

Target. To carry out a comparative analysis of the cytokine profile, apoptosis of lymphocytes, SMP, biochemical parameters of blood and the chemical composition of bile using bile absorption in patients with obstructive jaundice of malignant etiology.

Material and research methods

In the surgical department of the Multidisciplinary Clinic of the Center for Advanced Training of Medical Personnel, the clinical base of the TMA, 41 patients with obstructive jaundice of malignant etiology at the age of 33 to 84 years were examined (62.7 ± 2.1). Of these, 26 (63.4%) are men and 15 (36.6%) are women. All patients were divided into 2 groups: main and control. The main group consisted of 27 patients, and the control group 14. All patients, regardless of the localization of the tumor process, underwent PTCG with PTCS. The main group of patients after PChS used bile absorption. After that, we made a comparative assessment of the results.

The level of IL-6 and TNF- α in blood serum and bile was determined by the enzyme immunoassay (a set produced by Vector-Best, Novosibirsk, Russia).

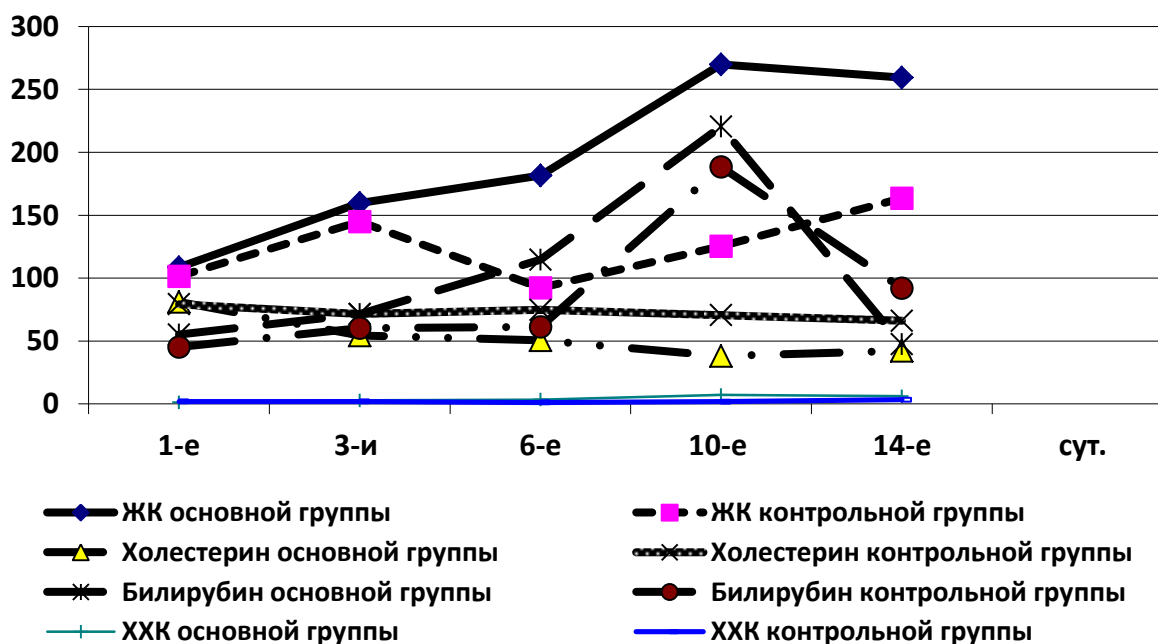
The concentration of cholesterol, bilirubin, and fatty acids was determined in patients, and the CCC and IL of bile were calculated by the Metzger method [42].

Results. A comparative assessment of the results of the study of bile and blood in patients of the control and main groups showed that the use of bile absorption led to an improvement in the

chemical composition of bile, a decrease in endogenous intoxication in blood serum and bile, and restoration of the functional state of the liver.

The patients of the main group showed more distinct positive changes, i.e. the activity of ALT and AST decreased over a shorter period of treatment than in the control group.

The composition of bile after bile absorption was characterized by a gradual increase in the level of FA, CCA and a decrease in the content of bilirubin and cholesterol, especially after 6 days of observation. The maximum came on the 14th day (Fig. 1).



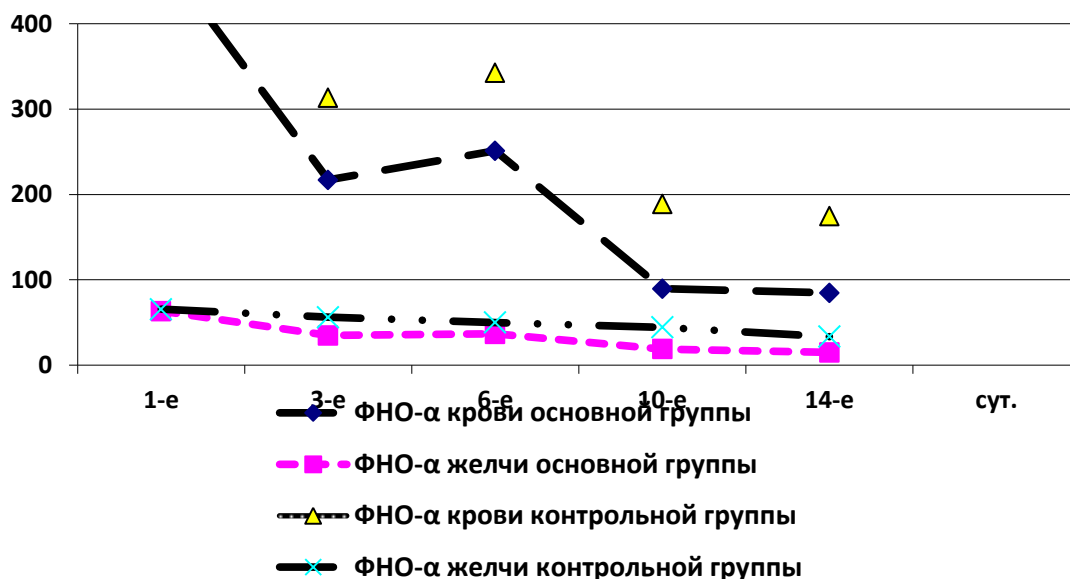
Rice. 1. Indicators of the biochemical composition of bile in patients of the main and control groups

At the same time, the level of fatty acids upon admission was 108.6 ± 17.5 in the patients of the main group and 101.46 ± 19.4 in the control group. On the 14th day, these indicators were 259.3 ± 17.8 ($t = 6.04$, $p < 0.05$) and 163.6 ± 21.8 ($t = 2.13$, $p < 0.05$), respectively. At the same time, the level of fatty acids in patients of the main group on the 14th day after the use of bile absorption increased 1.6 times ($t = 3.4$, $p < 0.05$).

The concentration of bilirubin in bile on the 14th day decreased by 1.3 times (to 47.6 ± 5.0 in the main group and to 92.16 ± 7.7 in the control) ($t = 4.85$, $p < 0.05$) ...

On the 14th day of bile absorption, the concentration of cholesterol in bile in patients of the main group decreased to 53.5%, and in the control group to 17.1%.

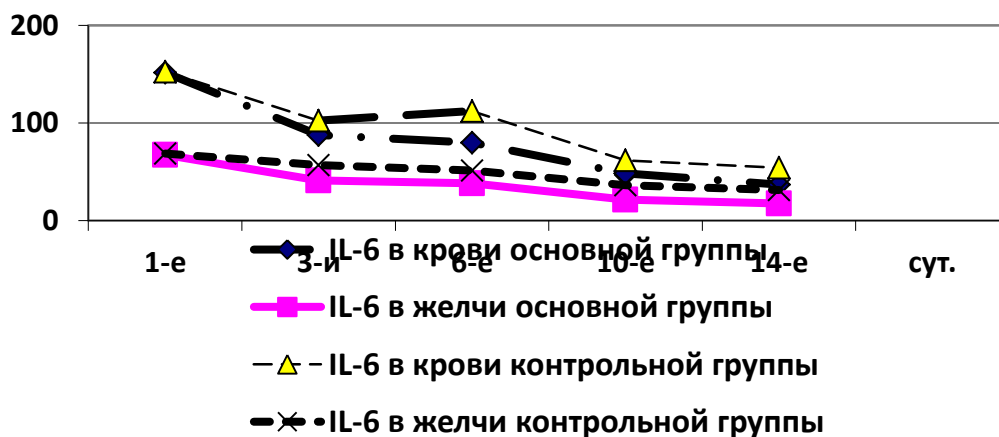
The concentration of TNF- α changed in direct proportion to its concentration in the blood, i.e. a parallel decrease in this indicator was observed both in the blood and in the bile. Studying the correlation relationship according to Pearson showed that the relationship between the concentration of blood and bile is pronounced ($r = 0.87$ in the control group and $r = 0.91$ in the main group) (Fig. 2).



Rice. 2. The level of TNF- α in blood and bile in patients of the main and control groups

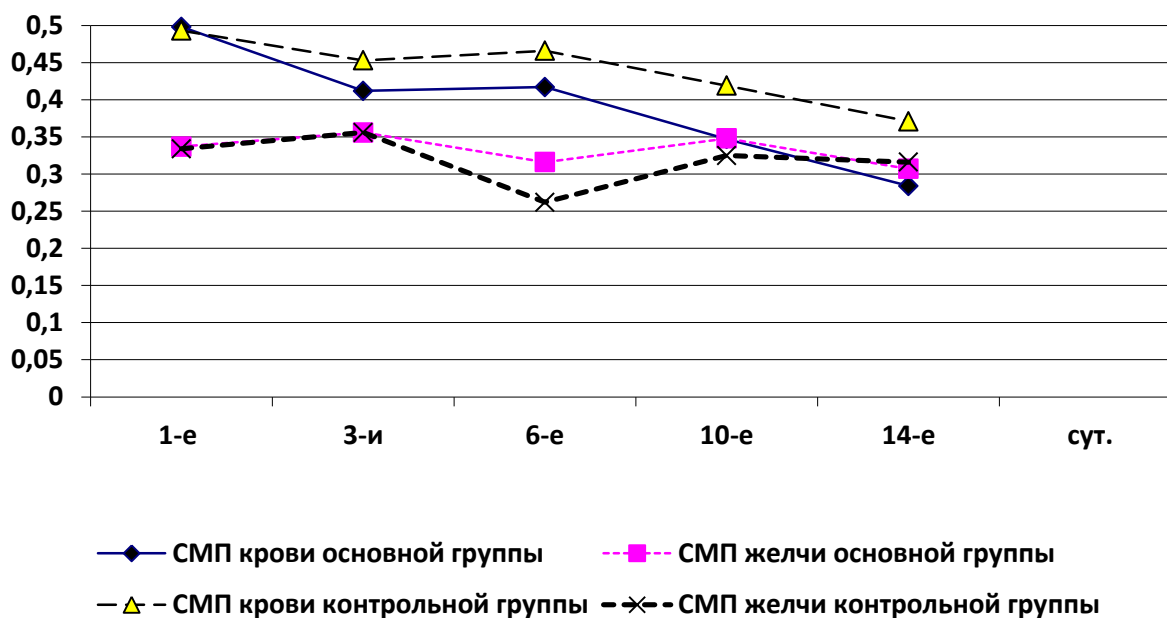
On the 14th day, the concentration of TNF- α in blood and bile in patients of the control group decreased by 62.6 and 49.1%, respectively, from the initial level (initially 467.43 ± 12.3 in the blood and 65.49 ± 5.44 in bile) ($t = 5.87$, $p < 0.05$ for blood and $t = 0.83$, $p < 0.05$ for bile). These indicators in patients of the main group on the 14th day decreased by 82.4% (initially 481.34 ± 14.61 in blood and 63.11 ± 4.56 in bile) in blood and by 76.5% in bile ($t = 5.87$, $p < 0.05$ for blood and $t = 0.83$, $p < 0.05$ for bile).

The content of IL-6 in blood and bile in patients of the control and study groups changed comparable to TNF- α . In patients of the main group, this indicator in the blood decreased by 75.7%, and in the control group - by 64.4% from the initial level. In bile on the 14th day, the level of IL-6 in patients of the main group decreased by 73.9%, and in the control group - by 54.3% (Fig. 3).



Rice. 3. The level of IL-6 in blood and bile in patients of the study and control groups

The concentration of SMP on the 14th day, as well as TNF- α , after the application of bile absorption in patients of the main group decreased by 1.2 in bile and 1.4 times in blood (Fig. 4).



Rice. 4. The content of medium-molecular peptides of blood and bile in patients of the main and control groups

Bile absorption in patients promoted a faster recovery of the metabolism of trace elements (i.e., calcium and phosphorus) during external drainage of the bile ducts in patients with BPDZ tumors than in the control group. When the enterohepatic circulation of calcium ions was restored in patients of the main group, an improvement in the bile-forming function of the liver was noted, i.e. more fatty acids were excreted with bile than in the control group. Changes in calcium metabolism also affect phosphorus metabolism, similar changes were observed in phosphorus metabolism. In patients of the main group, the metabolism of this trace element improved faster than in the control group.

A comparative study of the results of surgical interventions in patients from the control and main groups showed that in the main group, when using bile absorption, there was a more distinct improvement in biochemical parameters, a decrease in indicators of endogenous intoxication than in the control group. The chemical composition of bile was characterized by a more significant increase in the concentration of bile acids and a decrease in the level of bilirubin and cholesterol, which confirms the restoration of the functional state of the liver.

CONCLUSIONS

The study of the indices of the composition of bile and endotoxigenesis in patients with obstructive jaundice of tumor genesis with ChCHS showed that their concentration in bile changes in direct proportion to their concentration in the blood. By the concentration of endotoxigenesis indicators in bile, one can indirectly judge their concentration in the blood.

The use of a domestic sorbent for bile absorption helps to reduce the concentration of toxic and ballast substances in bile, with oral administration of purified bile, the intake of toxic substances and their absorption into the portal blood decreases, which leads to a decrease in the concentration of endotoxigenic indicators in the blood.

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