

**МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ  
БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ»**



## **МАТЕРІАЛИ**

**105-ї підсумкової науково-практичної конференції  
з міжнародною участю  
професорсько-викладацького персоналу  
БУКОВИНСЬКОГО ДЕРЖАВНОГО МЕДИЧНОГО УНІВЕРСИТЕТУ  
присвяченої 80-річчю БДМУ  
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Матеріали підсумкової 105-ї науково-практичної конференції з міжнародною участю професорсько-викладацького персоналу Буковинського державного медичного університету, присвяченої 80-річчю БДМУ (м. Чернівці, 05, 07, 12 лютого 2024 р.) – Чернівці: Медуніверситет, 2024. – 477 с. іл.

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У збірнику представлені матеріали 105-ї підсумкової науково-практичної конференції з міжнародною участю професорсько-викладацького персоналу Буковинського державного медичного університету, присвяченої 80-річчю БДМУ (м. Чернівці, 05, 07, 12 лютого 2024 р.) із стилістикою та орфографією у авторській редакції. Публікації присвячені актуальним проблемам фундаментальної, теоретичної та клінічної медицини.

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After hemithyroidectomy, recurrence was noted in the unoperated lobe - 16 patients. In the operated lobe, relapse occurred in 2 patients. In the thyroid residue of 46 patients, both during the primary and repeated operations, the following were found: medium-sized adenoma and adenomatous goiter with macrofollicular structure; in 14 patients macro-microfollicular colloidal goiter was found during the first operation, and during the next one, a new thyroid pathology was detected.

**Conclusions.** The potential reason for the recurrence of the primary disease can be considered insufficient amount of surgical intervention, while the recurrence of a new disease indicates the presence of changes in the macroscopically unchanged tissue of the thyroid remnant, which were not noticed during the initial intervention.

**Grynychuk F.F.**

## **NEW PROSPECTIVES OF INTESTINAL VIABILITY DETERMINING**

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**Introduction.** Intestinal viability must be determined in acute mesenteric ischemia, strangulated hernias, acute intestine obstruction, etc. The main method of the intestinal viability determining is the visual one. But this method is subjective and not reliable enough. There are a lot of methods to determine objectively. Most of them determine the intensity of blood circulation in the wall of the intestines. But disruptions in blood circulation are not informative enough, since necrosis of the intestines begins in the mucous membrane. Known methods of intestinal viability determining do not detect necrosis of the mucous membrane. So, the search for an effective method of intestinal viability determining is actual.

**The aim of the study.** To develop an informative method for the intestinal viability determining.

**Material and methods.** 30 white rats, 10 of which were the control group. Laparotomy was performed on the animals. A loop of the middle part of the small intestine with the mesentery was ligated in 10 rats. A loop of the middle part of the large intestine with the mesentery was ligated in 10 rats. The width of the laser rays scattering zone (WSZ) was measured on the afferent loops (AL), efferent loops (EL) and ligated loop (LL) of the intestines in 6 hours after ligation. Sections of the intestines were taken for histological examination after measuring the WSZ. The data obtained by measurements in the control group in different parts (initial, middle, distal) of the small and large intestines were the control. Laser LEDs with radiation wavelengths  $\lambda=0.63 \mu\text{m}$  and  $\lambda=0.4 \mu\text{m}$  were used for irradiation. Testing of the law of distribution of samples for normality was carried out using the Shapiro-Wilk test. To test the hypothesis of equality of means, the Wilcoxon test was used.

**Results.** Histological examinations in the control group showed no disorders in the intestinal structure. Histological examinations in the AL of each intestine showed morphological disorders without signs of necrosis (dystrophy, edema). Histological examinations in the EL of each intestine showed minor disorders (fullness of venous vessels). Histological examinations in the LL of each intestine showed necrosis. It was found that the WSZ on the intestinal walls increases as a result of a deviation of the intestinal viability. The increase of the WSZ indicates a viability deviation of the intestinal walls. But absolute WSZ indicators cannot be used for viability determining. Numerous factors affect the width of the scattering zone: local characteristics, individual characteristics, species characteristics, etc. So, it is advisable to use relative indicators. This can neutralize the effect of the such factors. We used the ratio of WSZ at wavelengths  $\lambda=0.63/\lambda=0.4 \mu\text{m}$  for this purpose. The ratio of WSZ indicators in the small ( $1.58\pm 0.08$  units) and large ( $1.61\pm 0.07$  units) intestines did not differ significantly ( $p>0.05$ ) in the control group. The ratio of WSZ indicators in AL of the small ( $1.43\pm 0.05$ ) and large intestines ( $1.39\pm 0.03$  units) were not significantly different ( $p>0.05$ ), but were significantly different from ratio indicators of control group ( $p<0.05$ ). The ratio of WSZ indicators in EL of the small ( $1.54\pm 0.06$  units) and large ( $1.67\pm 0.07$  units) intestines were also not significantly different ( $p>0.05$ ) and did not differ significantly from the ratio indicators of

control group ( $p>0.05$ ), but differed significantly from the ratio indicators in the AP ( $p<0.05$ ). The ratio of WSZ indicators in LL of the small ( $1.20\pm 0.03$  units) and large ( $1.19\pm 0.02$  units) intestines were not significantly different ( $p>0.05$ ), but were significantly different from the control group ratio indicators ( $p<0.01$ ) and from the ratio indicators in the AL and EL of the intestines ( $p<0.05$ ).

**Conclusions.** The ratio of WSZ indicators at the wavelengths  $\lambda=0.63/\lambda=0.4$   $\mu\text{m}$  is statistically significantly different in the viable intestinal walls and in the non-viable intestinal walls. Measurement of WSZ ratio indicators can be used to determine intestines viability precisely.

**Grynychuk F.V.**

## **THE CLINICAL PREDICTORS OF THE UPPER ULCER REBLEEDING**

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**Introduction.** Acute upper ulcer bleeding is an actual problem nowadays. The frequency of recurrent ulcerative bleeding remains high despite the advances of endoscopic haemostasis. So further research of its prognosis and treatment methods is necessary.

**The aim of the study.** The analysis of the risk factors for relapse of upper ulcer bleeding.

**Material and methods.** 203 patients with upper ulcer bleeding: males 135 (66,5%), females - 68 (33,3%). The average age was  $56,6\pm 17$ . All the patients were examined and treated conservatively according to the current minutes. Analysis of the main clinical and anthropometric criteria was performed.

**Results.** Ulcers were localized in the duodenum – in 127 (62,3%) patients in most cases. Gastric ulcers were in 68 (33,3%) patients. Gastroduodenal ulcers were in 9 (4,4%) patients. The ulcer frequency incidence was higher in males rather than in females regardless of the ulcer location. Most of the patients had no history of ulcers ( $n = 109$  (53,4%)). 10 (4,9%) patients had the ulcerative history up to 1 year, up to 1-3 years - 21 (10,3%) patients, 16 (7,8%) people had peptic ulcer disease from 5 to 10 years. 39 (19,2%) patients had the ulcerative history more than 10 years.

After primary EGDS the patients were carried at least one EGDS within next 3 days in order to control haemostasis and the treatment effectiveness. In addition, 31 (15,2%) patients were carried more than one controlling EGDS. If necessary, endoscopic haemostasis was performed during the controlling EGDS. For endoscopic haemostasis we performed injections around the ulcer. We used 0.9% saline sodium chloride with epinephrine 1:10, or tranexamic acid (Tranexam, Hemaxam, Sangera) in the same ratio. We carried out the injections on the ulcer periphery. The relapse rate in these cases is, depending on the location and other factors, 2-5%. The surgery was performed in cases of the haemostasis achievement failure by endoscopic way. The rebleeding was in 24 (11,8%) patients. Most rebleeding ( $n = 11$  (45,8%)) was within 2-3 days after the hospitalization. At a later date rebleeding was in 9 (37,5%) patients. The lowest number of rebleeding was during the first day - 4 (16,7 %) cases. Most cases of rebleeding were in males - 17 (70,8%). 9 (64,29%) patients with the rebleeding had the I blood group, 4 (28,57%) patients had the II blood group, 7 (14%) patients had the III blood group and 1 patient had the IV blood group. The majority of rebleeding ( $n = 15$  (62,5%)) happened in patients who had ulcer in the anamnesis. Clear link between ulcer localization and rebleeding rate was not found. The mentioned above shows that major prediction scales of the bleeding risk need to be improved. In particular, the most common scale called Forrest is static, doesn't take into account the consequences of the endoscopic treatment measures, local features, bleeding appearance mechanisms. Glasgow Blatchford scale is based only on clinical and laboratory displays, ignores the bleeding endoscopic stigmata. Rockall scale is based on a combination of clinical and endoscopic criteria. This allows to estimate the rebleeding opportunity right during the primary endoscopic examination, making it more acceptable. However, the given scale does not take into account all the possible factors, that facilitate the rebleeding. 15 (62,5%) patients with rebleeding had II A class by Forrest. 3 (12,5%) patients with rebleeding had 0 points by Glasgow Blatchford Score, 11 (45,83%) patients with rebleeding had the sum of points less than 5, and the other 10 (41,67%) - more than 5. The rebleeding number increased as the number of points by the Rockall Score increased. Most patients ( $n=16$  (66,67%)) had 5-6 points.