

**МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ
ВИЩИЙ ДЕРЖАВНИЙ НАВЧАЛЬНИЙ ЗАКЛАД УКРАЇНИ
«БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ»**



МАТЕРІАЛИ

101 – ї

підсумкової наукової конференції

професорсько-викладацького персоналу

Вищого державного навчального закладу України

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У збірнику представлені матеріали 101 – ї підсумкової наукової конференції професорсько-викладацького персоналу вищого державного навчального закладу України «Буковинський державний медичний університет» (м.Чернівці, 10, 12, 17 лютого 2020 р.) із стилістикою та орфографією у авторській редакції. Публікації присвячені актуальним проблемам фундаментальної, теоретичної та клінічної медицини.

Загальна редакція: професор Бойчук Т.М., професор Іващук О.І.,
доцент Безрук В.В.

Наукові рецензенти:

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професор Годованець О.І.

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and even, the thyroid tissue contours are slightly uneven and scalloped; the level of free T₄ is higher than 12.91 I; the TPOAB level is lower than 80.25; the level of TGAB is lower than 89.34; MA level is lower than 9.; OMP activity is lower than 42.97; CT level is higher than 163.41 ; GP is higher than 198.82; CP is higher than 75.39; TNF- α concentration is lower than 2.31; INF- γ is lower than 2.44; IL-1 β is lower than 3.15; apoptosis indices – CD95+ lymphocytes are lower than 12.04; the number of annexin V+ lymphocytes is higher than 16.52.

So, the risk of development of functional failure and hyperplasia of the contralateral lobe of the thyroid gland after hemithyroidectomy in patients with nodular goiter with autoimmune thyroiditis can be the volume of the thyroid lobe without nodes larger than 10 cm³, the level of free T₄ lower than 12.91, the TPOAB level higher than 80.25 and the level of TGAB higher than 89.34 with the indices of activity of peroxide oxidation and apoptosis processes, in particular with the indices of peroxidation activity processes – MA level higher than 9.5; OMP activity higher than 42.97; AOP indices – CT level lower than 163.41; GP lower than 198.82; CP lower than 75.39; cytokine level – TNF- α concentration higher than 2.31; INF- γ higher than 2.44; IL-1 β higher than 3.15; apoptosis indices – CD95+ lymphocytes higher than 12.04; the number of annexin V+ lymphocytes lower than 16.52.

Tarabanchuk V.V.

CHANGES IN THE OPTICAL PROPERTIES OF BLOOD IN ACUTE EDEMATOUS PANCREATITIS

Department of Surgery № 1

Higher State Educational Establishment of Ukraine

«Bukovinian State Medical University»

Informative diagnostics of different forms an acute pancreatitis and its complications is one of the most difficult problems in emergency abdominal surgery. Diagnostic probability of standard laboratory and instrumental methods does not exceed 80%, which in some cases leads to diagnostic pitfall. This makes actual problem search for new, informative diagnostic parameters.

In the clinical department of surgery Bukovinian State Medical University examined 30 healthy donors and 73 patients with various surgical diseases of the abdominal cavity. Patients were divided into 4 groups. The first group consisted of practically healthy donors. The second and third groups consisted of patients nondestructive forms of acute appendicitis (19 patients) and acute cholecystitis (17 patients). The fourth group consisted of 37 patients with acute edematous pancreatitis.

In addition to the mandatory complex of examinations, all patients performed determination of absorption spectra of plasma of venous blood. For this purpose a quartz cuvette with thickness 1 cm was filled plasma of peripheral veins. Then plasma diluted with distilled water at a ratio of 1:100 and placed in a spectrophotometer SF-5. This apparatus had an attachment in the form of spherical photometer. This ensures the exclusion effect dispersion on the absorption spectrum of colloidal solution. After that, conducted the study of plasma transmission spectra in the wavelength range 255-320 nm, followed by determination of optical density.

Therefore, we concluded that the most appropriate diagnostic purpose is to determine of the plasma optical density is a wavelength $\lambda = 280$ nm. Because change of this index in the specified wavelength is most sensitive. Sampling tolerance quantitative indicators found that in healthy donors' plasma optical density was $0,57 \pm 0,004$ units and was significantly lower ($P < 0.05$) than patients in the second, third and fourth groups - $0,59 \pm 0,006$, $0,61 \pm 0,004$ and $0,64 \pm 0,005$ units, respectively. The finding indicates that the nondestructive inflammatory process in the abdominal cavity optical density of plasma increases over 0.57 units. Thus, the value of the absorption spectrum of venous blood plasma in patients with acute pancreatitis the average was $0,64 \pm 0,005$ units and was significantly higher ($P < 0.05$) than in patients with acute appendicitis and acute cholecystitis - $0,59 \pm 0,006$ and $0,61 \pm 0,004$ units, respectively.

On the basis revealed changes we developed a method of diagnosis of acute edematous pancreatitis (patent № 62667 UA). Diagnostic sensitivity of the developed method is 84.6%,



diagnostic specificity - 71.4%, diagnostic accuracy - 81.8%, diagnostic efficiency - 78.0%. Thus, studies show that the definition of diagnosis of acute edematous pancreatitis at wavelength $\lambda = 280$ nm is an easy and informative method of diagnosis of acute edematous pancreatitis.

Thus, using the determination of plasma optical density of venous blood has high diagnostic sensitivity, specificity, accuracy and efficiency. This indicates feasibility of using this method for diagnostics edematous form of acute pancreatitis.

Tkachuk N.P.

MARKERS OF PROLIFERATION AND APOPTOSIS IN PATIENTS WITH POST-OPERATIVE RECURRENT GOITER

Department of Surgery № 1

Higher State Educational Establishment of Ukraine

«Bukovinian State Medical University»

Despite extensive experience in surgical treatment of nodular goiter, the incidence of postoperative recurrence is not reduced and reaches 5-10%. Among the problems of thyroid surgery, the most discussed in the literature are the development of indications for surgery with the choice of its optimal volume, as well as the prevention of postoperative relapses and hypothyroidism.

There are many publications in the literature on the study of thyroid morphology in postoperative recurrent goiter.

One factor in the occurrence of post-operative recurrent goiter (PRG) is impaired cell cycle regulation with inhibition of apoptosis and activation of proliferation.

The purpose of the study was to create new prognostic markers for the diagnosis of postoperative recurrent goiter by investigating the activity of apoptosis and proliferation in thyroid tissue in such patients.

During 2016-2018, 55 women were diagnosed with PRG. 30 were diagnosed with PRG (group I, primary). Recurrent goiter occurred 12 ± 7.5 years after surgery.

The indications for reoperation in this group of patients were: enlargement of the thyroid gland with symptoms of contraction and constriction of the trachea and esophagus; the presence of nodes with compression on the neck; progressive growth of goiter, despite conservative therapy for 1-1.5 years; suspected malignant rebirth based on FNAP (fine needle aspiration biopsy). A group of 25 women who were diagnosed with thyroid adenoma (group II) according to ultrasound, FNAB and histologic findings after surgery. We have identified this group because this pathology is one of the most common nodal forms of goiter. Thyroid tissue from 36 Chernivtsi residents killed in road accidents and accidents (group III) was taken for control.

All patients underwent surgery. The volume of surgery is from hemithyroidectomy to thyroidectomy. After the intervention, the thyroid tissue was removed for immunohistochemical study no later than 30 min. after surgery. Pieces of tissue weighing 100-300 mg were delivered on ice to the laboratory and immediately cut into 4-6 parts by weight of an average of 50-70 mg each. After separation, they were closed in a special plastic container and stored at -70°C until basic studies were performed.

The number of cells and their density were determined with markers distributed on the cell surface, Fas, FasL and intracellular proliferation markers Ki-67 and apoptosis Bcl-2, p53. Also an indicator of the density of expression of receptors (proteins) on cells or a group of cells. Numerous groups of cells formed by possible combinations were also investigated: p53 / Ki-67, p53 / Fas, Bcl-2 / Ki-67, Bcl-2 / Fas, Fas / Ki-67, p53 / FasL, Fas / FasL, Bcl-2 / FasL.

So, the study shows that in patients with postoperative recurrent goiter activation of Fas-induced apoptosis of thyroid cells with a pronounced expression of Fas on thyrocytes and their destruction, as well as an increase in the number of immunoreactive cells expressing Ki-67 responsive reaction preserved follicular epithelium of the thyroid gland. The expressed expression of Bcl-2 in thyroid lymphocytes of patients with postoperative recurrent goiter prevents the entry of cells into the process of apoptosis and prolongs their survival time, which undoubtedly plays an