



than usual (heart rate increases), therefore blood pressure increases (organism is preparing itself for adaptation). Students in Legon University (CG) results recorded 3.6% ($p < 0.05$) increase in blood pressure which is insignificant because their weather condition is stable at throughout the year without a fluctuation in temperature (organism is already adapted). Their maximum systolic pressure was 125 ± 3.5 mmHg & minimum diastolic pressure was 80 ± 2.3 mmHg.

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DEFENITION OF INTESTINAL WALL VIABILITY IN THE EXPERIMENT

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Defenition of bowel wall viability (DBWV) - is one of the unsolved problems of abdominal surgery. Determination of circulatory disorders of intestine, identifying areas of necrosis is determinant to choose the amount of resection and suture place, their capacity. When using methods based on visual inspection, the probability of the results to a large extent determine the factors that influence the degree of which it is impossible to assess and make appropriate adjustments. This makes the actual search for new methods that allow to adequately and quickly asses the availability and depth of morphofunctional changes in the intestinal wall.

The purpose of the experiment was to investigate changes in spectral and photoplethysmography information in the development of bowel necrosis, to develop new methods of determining DBWV intestinal wall.

The objects of the study were 12 breed rabbits of both sexes, with no obvious signs of disease and with normal values of laboratory tests.

Modeling ischemia of the small intestine was carried out by the developed method (certificate of innovative

Conclusions. The results obtained above showed that some foreign students in Bukovinian State Medical University have increased blood pressure, and it needs a time to adapt to the weather in Ukraine to prevent hypertensive conditions. The prospective for further researches is to find average time, needed for blood pressure adaptation and to find means for reducing risk of blood pressure growth in changed climatic conditions.

proposal № 69/05), which enables to simulate the projected degree of ischemia. The degree of ischemia measured by the developed technique (patent of Ukraine for utility model № 25701), which is non-invasive determination of hemoglobin oxygenation of arterial blood.

To evaluate the morphological changes of the bowel wall were carried out histochemical (Schiff reaction, alkaline phosphatase and nonspecific esterase mucosa of the small intestine) and histological (hematoxylin-eosin staining) study.

Informative study of the proposed method showed that the developed method of assessment of bowel viability, provides rapid quantitative assessment of the degree of oxygenation of the intestinal wall, which is closely correlated to its viability. The method is convenient and easy to use, enabling its wide application in practical surgery. The developed method determination of bowel viability involves highly probable, noninvasive assessment of the degree of oxygenation of the intestinal wall, which allows determination prevent of life-threatening complications in surgical interventions on hollow organs of digestion.

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HYPERTRIGYCERIDEMIA AND METABOLIC SYNDROME IN PATIENTS WITH TYPE 2 DIABETES

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Both, metabolic syndrome and diabetes mellitus (DM), are strongly associated with hypertriglyceridemia (HTG). In type 1 diabetes the absence of insulin reduces the ability of lipoprotein lipase to reduce triglycerides (TG) into fatty acids, resulting in elevated TG levels. In type 2 diabetes, insulin resistance leads to enhanced production and reduced clearance of TG. HTG with low concentrations of HDL cholesterol is a classic feature of insulin resistance and characterizes the lipid profile in type 2 diabetes. The concept of the metabolic syndrome has proven to be useful in emphasizing the importance of obesity, insulin resistance and related lipoprotein disturbances in the assessment of the risk of cardiovascular disease (CVD) – the major cause of morbidity and mortality in type 2 diabetes.

In this concern, the objective of the present study was to evaluate the association of HTG with metabolic syndrome (MS) in patients with type 2 diabetes.

Material and methods. We studied 38 patients with type 2 diabetes (42% men and 58% women, mean age – $56,0 \pm 1,36$ years), hospitalized to Chernivtsi Regional Endocrinological Center during a month period. In 29% of participating patients the duration of diabetes was less than 5 years, in 40% – 5-10 years, 31% of patients had diabetes longer than 10 years (average duration of DM – $8,0 \pm 0,79$ years). Among all examined patients 18% were treated by oral hypoglycemic agents, 20% were on combined hypoglycemic therapy and 11% received insulin preparations. Fasting and postprandial glucose concentration, fasting triglycerides level were measured



in plasma using standard clinical methods. Establishment of MS diagnosis was based on the presence of central obesity, defined as waist circumference more than 102/88 cm for men/women plus any two of the following four factors: raised triglycerides ≥ 150 mg/dl (1,7 mmol/l), reduced HDL cholesterol < 40 mg/dL (1,0 mmol/l) for men and < 50 mg/dL (1,3 mmol/l) for women, raised blood pressure $\geq 130/85$ mmHg, raised fasting hyperglycemia > 110 mg/dl (6,0 mmol/l) or previously diagnosed type 2 diabetes.

Results. According to the obtained data, the level of triglycerides exceeded 150 mg/dl (1,7 mmol/l) even in patients with DM duration less than 5 years (186,1 \pm 29,92 mg/dl), being significantly increased in case of DM duration 5-10 years (247,4 \pm 46,18 mg/dl), but decreased in DM duration more than 10 years (192,6 \pm 30,73 mg/dl).

Normal body weight was observed only in 8% of examined patients, whereas in 40% of them overweight

was diagnosed, in 34% – obesity of I degree, in 13% – II degree, in 5% – III degree correspondingly, accompanied by abdominal obesity. Being normal (132,9 \pm 30,30 mg/dl) in patients with normal body weight, HTG was steadily elevated according to the increase of BMI and waist circumference (208,5 \pm 29,02 mg/dl in overweight patients, 231,5 \pm 53,61 mg/dl, 242,1 \pm 42,45 mg/dl and 261,6 \pm 27,30 mg/dl in patients with obesity of I, II and III degree correspondingly), accompanied by high fasting hyperglycemia. These results are indicative of a considerable risk to develop insulin resistance and metabolic disturbances in the examined patients.

Conclusion. Abnormal triglycerides level is associated with markers of MS in patients with poorly controlled diabetes and strongly indicate existing metabolic risk of CVD in patients with type 2 diabetics with insulin resistance.

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FEATURES LIPID SPECTRUM OF BLOOD IN PATIENTS WITH DIABETIC NEPHROPATHY III-IV DEGREE

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Today it is known that diabetes mellitus (diabetes) causes a significant imbalance of lipid fractions in the study of lipid spectrum of blood. In patients with renal glomerular pathology also recorded changes of lipidohramy, the survey of imbalances lipids in diabetic nephropathy (DN).

The aim of the study was blood lipid spectrum in patients with DN III-IV degree.

The study involved 19 patients at DN III-IV degree, had diabetes type II. The average age of patients was 42.5 + 5.2 years. Patients were divided into 2 groups: group I - DN degree III (10 persons), group II - DN IV degree (9 persons). The results showed lipidohram likely increase low-density lipoprotein content ($p < 0.05$), lipoproteins

very low-density ($p < 0.05$) decrease in the content and likely high-density lipoprotein ($p < 0.05$) in patients I and II groups. In group II patients experienced probable increase in triglyceride content in blood ($P < 0.05$).

So, given the more pronounced changes in lipid levels in patients with DN IV degree, we can judge the negative prognosis of the disease in patients of II group. This is due to the fact that a pronounced imbalance of lipids causes profound structural changes in the vascular wall, resulting in significantly worse microcirculation, including in the capillaries of renal glomeruli, which accelerates the onset of kidney failure.

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HYGIENIC CHARACTERISTICS OF SIMPLE CARBOHYDRATES IN FOOD RATIONS AT CHILDREN EDUCATIONAL ESTABLISHMENTS OF CHERNIVTSI

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Nutrition is an essential component that ensures the full processes of growth and development. Intensive production of refined food promotes the consumption of highly purified dietary fiber bread, cereals, sweets. Unbalanced energy value and the qualitative composition of food contains excess of simple carbohydrates, which are risk factors of hyper-cellularity forms like obesity, insulin independent diabetes, diseases of cardiovascular system & gastrointestinal tract.

The study carried out was Hygienic evaluation of simple carbohydrates content in food rations of children attending Children Educational Establishments in Chernivtsi.

Study of children's organized diet was performed in 9 Children Educational Establishments by calculation method, obtaining a copy of data of menu layout for 10 days according to seasons. Simple carbohydrates Research content (mono and disaccharides) was carried out using electronic programs, compiled on the basis of tables suggested by 'I.M.Skuryhina' and followed by assessment of their compliance with «Standards of the physiological needs of the population of Ukraine in major nutrients and energy» (1999) and

«Standards of physiological requirements for energy and nutrients for different groups of the Russian Federation» (2008)