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**POLYMORBIDITY PATHOLOGY IN PATIENTS WITH ARTERIAL HYPERTENSION IN NURSING AND GENERAL MEDICAL PRACTICE***M.V. Antoniuk, O.P. Bukach, L.P. Sydorчук, O.V. Kushnir, O.M. Korovenkova*

**Purpose.** To value the comorbidity status, life quality (LQ) and anxiety of patients with essential arterial hypertension (EAH) in nursing and general medical practice.

**Design/approach.** In a prospective study participated 100 patients with EAH II and III severity stages: 37,0% (37) patients – with EAH II, 63,0% (63) - with EAH III, 49,0% (49) female and 51,0% (51) males, average age – 59,6±4,24 years, disease duration from 4 to 25 years. Comorbidity was assessed by Charlson comorbidity index (CI) score and cumulative disease index (CIRS). LQ was analyzed by interviewer SF-36 (WHO). The level of reactive anxiety (Ar) and personal anxiety (Ap) – by Charles Spielberger method.

**Results.** Changes of anxiety in patients with EAH are characterized by an increase of Ar and Ap with stable prevalence of the last one the on level “high”. Ar significantly increases in patients with EAH III by 14,5% ( $p<0,05$ ) and in patients with age-independent Charlson CI  $e^{4,0\%}$  – by 6,2% ( $p<0,05$ ), CIRS index of  $\geq 2,5$  points is associated with an increase of Ap and Ar by 15,1% and 19,2% respectively. In patients with EAH the LQ indicators became worse due to physical, mental and social components, especially physical and mental health. Charlson CI  $\geq 4,0\%$  is associated with decreasing of physical health by 1,8-2,0 times ( $p<0,001$ ), social activity – by 1,4 times ( $p<0,001$ ), mental health and vitality – by 1,45-2,4 times ( $p<0,001$ ), with no significant influence on the general health and in comparison with the last year’s state.

**Research limitations/implications.** Limitation of the study is due to patient’s personal-oriented self-assessment of LQ indicators and its own anxiety.

**Originality/value.** The original research provides data as to the influence of comorbidity on LQ and anxiety in patients with EAH.

**Key words:** arterial hypertension, comorbidity, life quality, anxiety.

**Bukovyna State Medicinal University**  
Theatralna Ploshcha, 2, Chernivtsi, Ukraine  
lsydorchuk@ukr.net

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**CHANGES OF SOME INDEXES OF HOMEOSTASIS AND OF HISTOLOGY OF PLACENTAS IN WOMEN WITH THE THREAT OF MISCARRIAGE IN EARLY TERMS OF PREGNANCY***A. Berbets, O. Andriiets, I. Nitsovyeh*

**Purpose.** This study investigates the role of pregnancy-related proteins in pathogenesis of the threat of abortion in the 1<sup>st</sup> trimester of pregnancy in relation to the changes of hemostasis and histological changes of postpartum placenta.

**Design/methodology/approach.** 30 women with uncomplicated course of pregnancy and 96 patients with the signs of the threat of abortion in the 1st trimester of pregnancy have been examined. The serum levels of pregnancy-specific beta-glycoprotein-1 (PSG1) and progesterone-associated endometrial protein (PAEP, placental protein 14) have been studied, as well as serum levels of the hormones (estradiol, progesterone, cortisol) and indexes of hemostasis. The extract of ginkgo and erynithum have been used in the therapeutic complex for treatment of the threat of abortion. The histological research of the postpartum placentas has been performed. The study uses the primary data.

**Findings.** The conclusion has been made that these medications improve functioning of trophoblast in the 1<sup>st</sup> trimester, and PSG1 and PAEP are the main factors which prevent development of the disorders of hemostasis in case of the threat of abortion. According to histological research, the proposed therapeutic complex is thought to increase compensatory reaction of the placental tissue in response to hypoxia.

**Originality/value.** This study researches the changes in the placental proteins, hormones and the parameters of blood coagulation in pregnant women in the context of threat of abortion in the 1<sup>st</sup> pregnancy trimester in combination with histological examination of postpartum placentas.

**Key words:** threat of abortion, trophoblast, placenta, pregnancy-specific beta-glycoprotein-1, progesterone-associated endometrial protein, hormones, hemostasis, histology, extract of ginkgo, erynithum.

**Bukovinian State Medical University (Chernivtsi, Ukraine)**

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## CLINICAL-ANAMNESTIC CHARACTERISTICS OF EARLY ONSET PHENOTYPE OF THE BRONCHIAL ASTHMA IN SCHOOL AGE CHILDREN

*N.K.Bogutska, L.V.Koliubakina, Ye.P.Ortemenka, Ye.V. Vlasova*

**Objective.** to investigate whether clinical-anamnestic characteristics differ in early-onset (< 3 years old) bronchial asthma as compared with its late-onset phenotype (> 6 years old).

**Methods:** clinical manifestations of bronchial asthma and children's anamnestic peculiarities were analysed in two equal groups of total 50 asthmatic patients of 7-17 years old, formed by a case-control method according to the age of disease onset (before 3 or after 6 years old).

**Results.** there were two factors, significantly associated with early-onset as compared with late-onset asthma in children of school age – daytime manifestations of asthma symptoms more than once per month (OR=14,7, 95% CI 1.6-132.6) and the use of inhaled  $\beta_2$ -agonists more than four times per week (OR=4.1, 95% CI 1.1-16,1). There was no significant association between the BMI>22 kg/m<sup>2</sup> (OR=2.4, 95% CI 0.5-11.3), the fact of being born as a result of e<sup>o</sup> third pregnancy (OR=6.4, 95% CI 0.7-59,6), the birth weight <3kg (OR=4.6, 95% CI 0.5-45.1), the predominancy of viral respiratory infection as a trigger (OR=4.8, 95% CI 0.5-46,5), the atopic family index <0,3 (OR=3.4, 95% CI 0.3-35.6), the nighttime symptoms more than once per 2 weeks (OR=3.5, 95% CI 0.9-13.3) and the early-onset bronchial asthma.

**Conclusion.** the early-onset bronchial asthma in school age children is associated with more severe daytime manifestations and use of rescue medications as compared with asthma onset after 6 years old.

**Keywords:** children, early-onset asthma, risk factors, clinical characteristics.

Bukovyna State Medical University (Chernivtsi)

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## MUCOSAL IMMUNITY OF THE NASAL MUCOSA IN THE ANTHROPOGENIC IMPACT

*O.V. Voitovich, O.M. Kamishniy*

**The aim of research.** The work is devoted to the study of features controls the expression of adaptive immune cells of the nasal mucosa of healthy residents of Zaporizhzhia in conditions of anthropogenic impact.

**Methods.** Investigated samples of biological material obtained from the mucosa of the distal inferior turbinate 100 healthy young men residents of Zaporizhzhia: 36 residents conditionally clean areas and 64 residents conditionally dirty areas Zaporozhye.. Analyzed the composition of the microbiota of the nasal mucosa, and the expression of antigenic markers LMP-2 and Nf-kB mucosal cells. The expression regulators of adaptive immunity cells of the mucous membranes of nose was studied based on immunocytofluorescence identify antigenic markers of LMP-2 and Nf-KB. Cells were stained with primary rabbit monoclonal antibodies to the p50 subunit and its precursor p105 Nf-kB or immune proteasome subunit LMP-2 (Santa Cruz Biotechnology, USA).

**Results.** The presence of coagulase positive staphylococci and *C. albicans* in the microbiota of the nasal mucosa has led to increased expression of LMP-2 and Nf-kB on mucosal cells. Number LMP-2<sup>+</sup> granulocytes and epithelial cells and number Nf-kB<sup>+</sup> granulocytes and epithelial cells was statistically significant (p <0.05) higher than in the presence of coagulase negative staphylococci. In the materials received from the inhabitants conditionally dirty areas of Zaporizhzhia in the presence of coagulase negative staphylococci and *C. albicans* in the microbiota observed weakening of expression LMP-2 and Nf-KB on granulocytes compared with residents conditionally clean areas.

**Conclusion.** We found increased production of immune proteasome and expression of Nf-kB of mucosal cells due to increased antigenic load on them. In a more intensive anthropogenic impact were signs of tension mucosal immunity as an imbalance of regulatory mechanisms of adaptive immunity.

**Key words:** mucosal immunity, microbiota, anthropogenic impact.

Zaporizhzhia State edical University

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**ROSUVASTATYN ON THE COURSE OF ATHEROSCLEROTIC DAMAGE OF THE VESSELS OF THE CAROTID BASIN ARTERIES IN PATIENTS OF THE RISK GROUP***I.V. Dmytriv*

**Introduction.** Purpose was to analyze the ultrasonography data of examination of branches of the aortic arch in patients after cerebral events that were during 1 year on a conservative treatment to the part of which hypolipidemic remedy "Rozart" was included.

**Methods and materials.** The study involved 60 patients at high risk (those who have suffered from a temporary ischemic attack), in which during the early rehabilitation period atherosclerotic lesions of extracranial carotid artery sections with passage of internal carotid artery more than 50% by ultrasound duplex scanning were diagnosed. All of them were on conservative treatment during 1 year, to the part of which hypolipidemic drug "Rozart" (Rosuvastatinum) was included, the dose was selected individually - from 5 to 40 mg, considering the presence of comorbidity, type and severity of hyperlipidemia (cholesterol and low density lipoprotein), genetic features, the absolute magnitude of risk and case history. According to laboratory data low density lipoprotein target levels were established for these patients  $\leq 2,5$  mmol/l, carrying out held enzymes control was obligatory.

**Results of the research and discussion.** Carotid ultrasonography was performed for all patients 4 times during a year: during inpatient treatment and every three months. In case of a new cerebral event extraordinary investigation was conducted right away. During the first ultrasound of carotid arteries in 78.3% of stated the presence of mixed (in some areas more dense) atherosclerotic plaques, whose surface was rough, but without ulceration. Passage of arteria carotis interna was about 56-85%. There was less passage of vessels in patients who smoked and suffered from hypertension without adequate blood pressure control. Atherosclerotic plaques were of more hypoechogenic structure ("soft"), or mixed with hypoechogenic areas in the center (plaque with hemorrhage or inflammation) In patients with diabetes. Ulcerative atherosclerotic plaque (ulcerative defect over 1mm) was fixed in several patients with 50% passage of artery. In two patients ulcerative defect was covered with a thick hypoechogenic cover plate that might indicate formed hypoechogenic thrombus in it.

Through monitoring of the atherosclerotic process in patients quarterly, 82,6% of them had not stated progression of sclerotic changes. In 17,4% of patients the vascular permeability decreased on 9-12%. In the main those were mostly male (8 people) who continued to smoke, did not comply with recommendations for lifestyle. Patients with high risk of cerebral events which followed the recommendations of the specialist, receiving statins (Rozart) with the support of the target cholesterol level and low density lipoprotein during a year in the carotid arteries did not show progression of atherosclerotic process.

**Keywords:** statins, carotid ultrasonography, atherosclerosis.

Ivano-Frankivsk National Medical University

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**HISTOLOGICAL STATE OF THYMUS IN MICE LACKING GENE *PTTG1****A.I. Dovgalyuk*

**Introduction.** Oncogene *pttg1* is overexpressed in most of mammalian tumor cells, and its protein product PTTG1 is abundant only in normal thymic and testicular cells. In mice with knockout of this gene, an increase in weight of the thymus, some functional impairment of T-lymphocytes and development of autoimmune state were revealed. **The aim** of this investigation - to establish microstructural changes that occur in the thymus of animals without the gene *pttg1*. **Material and methods.** 24 mice of BL6/C57 line were used for the research (10 animals – the dominant homozygotes for the gene *pttg1* – constituted the control group and 14 individuals with *pttg1* knockout formed test group). All animals were 7 weeks of age. Histological preparations of thymus were studied by light microscopic and morphometric methods. **Results.** *pttg1* gene deletion leads to changes in the medulla/cortex area ratio in the thymic lobules. Thus, this parameter was 1:2,6 in the control group and 1:4,6 in the knockout group. Also statistically significant decrease of the T- lymphocyte density in the thymic medulla in the mice without the *pttg1* gene was found. The cortex hyperplasia and reduction of thymocytes in the medulla could be explained by delayed and/or disturbed antigen-independent differentiation of T-lymphocytes in the knockout animals' thymus. **Conclusions.** Obtained data indirectly suggest the involvement of protein PTTG1, the product of *pttg1* gene expression, in the thymus organogenesis and maturation of T-lymphocytes. **Prospects for further research.** Next electron microscopic analysis of the thymic lobules will clarify the structural differences of the organ parenchyma and stroma in the *pttg1* gene knockout mice.

**Keywords:** thymus, histological changes, gene knockout *pttg1*.

SHEE "Ternopil State Medical University named after I. Gorbachevsky"

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## THE USE OF HYPOALLERGENIC MIXTURES IN CHILDREN WITH SIGNS OF ATOPY

O.K. KOLOSKOVA, U.I. MARUSYK, O.V. BELASHOVA

**Abstract. Introduction.** Studies are indicative that about a quarter of infants in Ukraine have atopic manifestations. If the breastfeeding is impossible, hypoallergenic mixtures should be used. **The arm of the research.** To establish clinico-paraclinical efficacy of hypoallergenic mixtures TM “Humana Ha” in infants with clinical manifestations of atopic abnormality of constitution. **Methods.** 27 children aged from 2 to 12 months with the symptoms of atopic dermatitis and 25 infants who were fed on formula and had the usual signs of wheezing syndrome underwent complex examination.

**Results.** In the 1st clinical group among patients with mild forms of eczema (11,1%) score on EASI scale decreased from  $28,8 \pm 2,1$  to score  $12,2 \pm 1,8$  score ( $P < 0,05$ ). The using mixture “Humana-HA” was led to a decrease in absolute risk register high concentration of IL-4 in serum by 20,9%, relative risk reduction – 23,5% (95% CI 15,5-33,1), and the minimum number of patients which should be treatment to get one positive result was 4,2 (95% CI 1,2-10,4). **Conclusions.** The using of partially hydrolyzed mixture “Humana-HA” in infants with signs of atopic dermatitis significantly improves the flow of mild and moderate forms. Application of partial protein hydrolyzate “Humana-HA” in the diet of infants with atopic dermatitis reduces the content of immunoglobulin E and interleukin-4 in serum.

**Key words:** children, food allergy, atopy, dermatitis, partial protein hydrolyzate.

*Bukovyna State Medical University (Chernivtsi)*

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THE USE OF A <sup>13</sup>C-OCTANOIC ACID BREATH TEST IN THE DIAGNOSIS OF DIABETIC AUTONOMIC NEUROPATHY OF STOMACH

I.O.Kostitska, V.A.Gryb, O.A.Shapoval

**The aim of the research** Study the possibility of using <sup>13</sup>C-octanoic acid breast test for improvement and early diagnosis of gastric evacuation function in patients with diabetes mellitus (DM). **Methods.** The study included 30 patients with diabetes mellitus. In vestigating patients were divided into 2 groups: the first group of patients (n = 15, male =7, female =8) with type 1 DM and the second group of patients (n=15, male =4, female =11) with type 2 DM, mean age  $58,5 \pm 12,4$  years. The disease duration was from 5 years to 15 years. The study excluded patients with disorders of the gastrointestinal tract, GERD, peptic ulcer and duodenal ulcer, hepatitis, heart failure, impaired thyroid function (hypothyroidism), clinically significant renal impairment, diseases of the muscle and connective tissue. All the patients have been defined gastric evacuation function of using <sup>13</sup>C-octanoic acid breast test (<sup>13</sup>C-OBT). This method based on stableisotope breath testing analysis has been introduced in clinical practice of noninvasive evaluation of gastric emptying. The rationale of <sup>13</sup>C-OBT to measure gastric emptying of solids is based on the firm retention of <sup>13</sup>C-octanoic acid in the solid phase of a standard test meal during its passage through the gastric environment, followed by a rapid disintegration of the solid phase in the duodenum with subsequent absorption of <sup>13</sup>C-octanoic acid and hepatic oxidation to <sup>13</sup>CO<sub>2</sub>. **Results.** Using <sup>13</sup>C-OBT is an informative, noninvasive early diagnosis of gastric evacuation function in patients with type 1 and 2DM. Inpatients with type 1 DM are characterized by accelerated evacuation of gastric contents in 3.3% and slowing down in 26.7% of subjects. Asymptomatic mild manifestations of diabetic gastroparesis(36.7%) and medium (16.7%) levels with symptoms of decompensation of DM were diagnosed inpatients of both groups using <sup>13</sup>C-OBT. **Conclusions.** It is reasonable to develop diagnostic and therapeutic algorithms for differentiated pathogenesis based methods of correction of early signs of diabetic autonomic neuropathy stomach.

**Keywords:** <sup>13</sup>C-octanoic acid breath test, Diabetic Autonomic Neuropathy of Stomach, Diabetes Mellitus.

**Ivano-Frankivsk National Medical University**

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**METHODOLOGICAL PARTICULARITIES OF SCREENING INVESTIGATION OF THE FUNCTIONAL STATUS OF CARDIOVASCULAR SYSTEM IN SCHOOLAGE CHILDREN***D.Y.Nechytailo, T.M.Mikheeva, O.G.Buriak*

**Purpose.** To perform screening assessment of the functional state of the cardiovascular system, the physical development of school age children in Chernivtsi region, and to evaluate the effectiveness of existing methods.

**Methods.** The study involved 400 school age children from Chernivtsi and Chernivtsi region. We used the following methods: clinical, anthropometric, the instrumental one. Functional state of the cardiovascular system was determined by using the samples of Rufye (based on the index Rufye), samples of Stange and Ghenc, measurement of blood pressure. The physical development of children and adolescents was evaluated by somatometry variables (height, weight, chest circumference, waist, hips, shoulder and arm length, body mass index).

**Results.** The results of the screening identified arrhythmia in 35 children, hypertension – in 11 children. There were some difficulties by conducting these studies: measuring of blood pressure in some kids was performed for the first time that is why certain features were recorded: 15 children reacted emotionally on osculation of shoulder sleeve moving the hand, thus, due to the difference of the received data we had to select the appropriate cuff size for carrying out; the samples of Stange and Ghenc more time needed for clarification of the performed tests, 15 girls were ashamed during their anthropometric studies (needed extra time to restore emotional balance.)

**Conclusions.** Optimal methods for screening study of the functional state of the cardiovascular system in children of school age are samples of Stange, Ghenc and Ruf'ye and blood pressure measurements. Children who are enrolled in grades 5-7, during screening study of the functional state of the cardiovascular and respiratory systems as a rule have difficulties in carrying out tests of Stange and Ghenc.

**Key words:** school-age children, the functional state of the cardiovascular system, screening study.

**Bukovyna State Medical University (Chernivtsi)**

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**PECULIARITIES OF THE CLINICAL COURSE OF SOME FORMS OF CORONARY ARTERY DISEASE DEPENDING ON THE CONCOMITANT DISEASE***N.D. Pavliukovich, I.D. Shkrobanets, O.G. Buriak, O.V. Pavliukovich*

**Purpose.** The article was aimed at the investigation of clinical features of combined course of coronary artery disease (CAD), diabetes mellitus (DM) type 2 and anemia in elderly and senile patients. The course of CAD combined with DM type 2 and anemic syndrome (AS) was studied and the probable therapeutic possibilities of telmisartan prescription for the correction of the detected changes were investigated.

**Design/approach.** 120 patients with CAD, DM type 2 and anemia hospitalized to Chernivtsi Regional Hospital for Disabled Soldiers of Great Patriotic War were included in the study. All examined patients received basic therapy of the main and concomitant diseases. A group of patients who received telmisartan in a dose of 40 mg daily was formed.

**Results.** At admission to the hospital patients of the main groups complained of pain in the chest and irregularity of heart beating, dyspnea as pain equivalent and during physical exertion, edema of the lower extremities, feeling of heaviness in the right upper epigastrium, recurrent headache, weakness, intermittent increasing of blood pressure, dry cough. It has been established that concomitant anemia has a negative impact on the course of the main disease: stable angina attacks were more frequent in a group of patients with CAD, DM type 2 and anemia, higher daily dose of nitroglycerin was necessary to relieve pain, each fourth patient with CAD and DM did not complain of typical angina pain in chest. During the treatment of patients with CAD, DM type 2 and anemia with telmisartan clinical course of the underlying disease greatly improved versus patients who received only basic treatment.

**Conclusions.** Concomitant anemia gives certain peculiarities to the course of CAD in elderly and senile patients and telmisartan inclusion to a scheme of basic treatment of patients with CAD, DM type 2 and anemia leads to the improvement of the main course of the disease. Finding out ways of further optimization of the treatment of patients with CAD, DM type 2 and anemia based on renal function and glucocorticoid function of the adrenal glands remains relevant for further investigations.

**Key words:** coronary artery disease, diabetes mellitus type 2, anemia, telmisartan, treatment.

**Bukovyna State Medical University (Chernivtsi)  
Department of Health and Civil Protection  
Chernivtsi Regional State Administration (Chernivtsi)**

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**THE ACTIVITY OF ANTIOXIDANT ENZYMES IN CHRONIC OBSTRUCTIVE PULMONARY DISEASE IN COMBINATION WITH COMORBID OBESITY**

*G. Y. Stupnytska, O. I. Fediv*

**Abstract. Background.** Chronic obstructive pulmonary disease (COPD) is one of the most common diseases in the world, whose mortality continues to increase. The focus of modern medical science and public health is obesity too, because the number of patients are steadily increasing and doubling every three decades. **The aim of the study.** To study the dependence of the parameters of antioxidative enzymes in the blood in patients with chronic obstructive pulmonary disease, depending on the severity of accompanying obesity. **Materials and methods.** The study involved 19 patients with COPD without obesity, 48 patients with COPD, combined with obesity grade I, II, III. We determined the content of reduced glutathione levels, level of ceruloplasmin in serum, activity of glutathione peroxidase, glutathione-S-transferase, copper / zinc - superoxide dismutase, catalase activity in the blood. **Results.** Found that in chronic obstructive pulmonary disease observed decrease in reduced glutathione and activities of copper / zinc superoxide dismutase and catalase in blood with simultaneous increased ceruloplasmin and glutathione peroxidase activities and glutathione-S-transferase levels. These changes are compounded with increasing body mass index and is most observed in the third degree of accompanying obesity. **Conclusions.** In patients with chronic obstructive pulmonary disease, combined with obesity, there is decompensation of functioning antiradical protection systems, resulting decrease in reduced glutathione and activities of superoxide dismutase and catalase levels, the degree of which depends on the degree of obesity. One form of compensation for breach of antioxidant defense in chronic obstructive pulmonary disease in conjunction with obesity is increasing ceruloplasmin and activities of glutathione peroxidase and glutathione-S-transferase levels, most pronounced in the third-degree obesity.

**Keywords:** *chronic obstructive pulmonary disease, obesity, antioxidant defense, enzymes.*

**Bukovyna State Medical University**

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**REESTR OF ACUTE MYOCARDIAL INFARCTION OF NORTHERN BUCOVINA – INFLUENCE OF DEPRESSION**

*V.K.Tashchuk, O.Yu.Polishchuk, O.S.Polyanska, I.V.Bachinska*

**The aim of the study.** To assess possibility and effectiveness of the Hamilton depression scale use in patients with acute myocardial infarction (AMI) and the distress manifestations in these patients according to gender and sexual aspects. **Materials and methods.** The study involved 120 patients (54 men and 64 women) with a diagnosis of AMI. By age and degree of myocardial injury groups of men and women did not differ. **Results.** After analyzing the results of studies using the Hamilton scale, it should be stated that in patients with previous myocardial infarction, the following psychopathological symptoms dominate: depressed mood, loss of interest in activities, fatigue, anxiety, sleep disorders. It is noted that one of the resulting dominant, which determines the further course of MI, is chronic heart failure, and signs of depression, according to the literature analysis, precisely adversely promote its course. **Conclusions.** 1. Depressive disorders of different degree of severity approximately equally occur in men and women. They were found in 81.67% of patients with acute myocardial infarction, while absence of depression is more typically for men. In elderly patients depressive disorder of moderate degree of severity is diagnosed in most cases.

2. Among depressive symptoms the most widely spread are depressed mood, decreased capacity for work and activity, mental anxiety, lethargy, somatic anxiety, feeling of guilt.

**Key words:** acute myocardial infarction, depression, Hamilton Depression Rating Scale.

**Bukovyna State Medical University (Chernivtsi)**

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**STROKE-ASSOCIATED PNEUMONIA AND ACUTE STROKE: FREQUENCY, PROGNOSTIC VALUE AND IMPACT OF COMORBIDITIES***O. O. Filipets, V. M. Pashkovskyy*

**Abstract.** The aim of research was to evaluate the frequency of nosocomial pneumonia and other hospital-acquired complications after acute ischemic stroke, to assess the impact of somatic comorbidity on pneumonia occurrence, and to determine the relation of pneumonia to 28-day stroke case fatality. **Methods.** We performed a prospective study among 207 patients hospitalized for acute ischemic stroke. Stroke severity was evaluated with National Institutes of Health Stroke Scale. Somatic comorbidity was analyzed and graded with Modified Charlson Comorbidity Index. Post-stroke complications were diagnosed using standardized criteria. **Results.** Mean score of the admission stroke severity in all patients was  $12.3 \pm 0.4$ . Of all strokes, 87.4% developed against a background of 2 of preexisting somatic pathology. Low comorbidity was recorded in 101 patients (48.8%), moderate – in 58 (28.0%), high – in 48 (23.2%); mean Charlson index score was  $1.8 \pm 0.07$ . During admission, one or more medical complications occurred in 61 patients (29.5%). The frequency of pneumonia was 19.3% (40 cases): 27.8% in patients with fatal stroke vs. 8.7% in stroke survivors ( $p < 0.01$ ). The highest was the frequency of pneumonia in patients with high comorbidity (37.5%) compared to those with low (11.9%) or moderate index scores (17.2%). The further analysis showed positive correlation between the increase of Charlson comorbidity index and pneumonia occurrence ( $r_{pb} = 0.389$ ). Nosocomial pneumonia was related to 28 days case fatality in ischemic stroke ( $f = 0.241$ ) and this complication significantly increased the probability of death in acute period – OR=3.94 (95% CI 1.59-9.76). **Conclusions.** Nosocomial pneumonia is a life-threatening complication that affects almost every 5<sup>th</sup> patient with acute ischemic stroke. The occurrence of stroke-associated pneumonia positively correlates with the higher level of preexisting somatic comorbidity. Development of pneumonia after acute ischemic stroke is an adverse prognostic factor, which increases the probability of 28-days case fatality by 3.9-fold.

**Key words:** *ischemic stroke, pneumonia, comorbidity, prognosis.*

Bukovinian State Medical University