

**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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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.) – Чернівці: Медуніверситет, 2020. – 488 с. іл.

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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.

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35% of cases. There is a high risk of side effects among the patients with concomitant arterial hypertension (AH).

Objective: to study the changes in blood pressure (BP) among OA patients with hypertension within 24 hours during their treatment with NSAIDs.

Bibliographic, descriptive, medical statistical and sociological methods of research were used in this work.

According to 24-hour blood pressure monitoring, it can be assumed that association of osteoarthritis with AH worsens the course of hypertension. Activation of the inflammatory process in the joints facilitates blood pressure increase. Patients who have had the most pronounced inflammatory joint symptoms observed higher levels of average SBP and DBP. The degree of the surveyed patients' night-time reduction of blood pressure significantly differed. It was statistically lower among patients with osteoarthritis, than among patients who had no pronounced articular manifestations. This was accompanied by increased headache, cardialgia, discomfort with changes of weather and tendency to dizziness.

The results of the conducted medical researches indicate that the treatment of OA in many cases leads to the progression of hypertension. Thus, most nonselective NSAIDs are capable of causing an increase in blood pressure due to disorders in synthesis of a natural vasodilator - prostacyclin – in the daytime. On the contrary, the selective representatives of the rofecoxib group, nabumetone did not cause significant changes in blood pressure in the daytime, but caused a significant increase at night, which led to the leveling of physiological daily variation. There is also an increased risk of developing myocardial infarction among patients taking selective inhibitors of cyclooxygenase-2 (celecoxib) and some non-selective NSAIDs (ibuprofen, diclofenac).

The influence of NSAIDs on the antihypertensive effect among patients with arterial hypertension associated with osteoarthrosis of the knee joints is an urgent problem of the present and needs further research.

Sydorchuk L.P.

**ALDOSTERONE SYNTHASE CYP11B2 (-344C/T) GENE POLYMORPHISM AS A
POSSIBLE MARKER OF KIDNEY FAILURE DEVELOPMENT IN HYPERTENSIVE
PATIENTS**

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Nowadays the numerous genes encode the renin-angiotensin-aldosterone system (RAAS) activity and have pleiotropic effects on cardiovascular and metabolic disorders. Cytochrome 11B2 aldosterone synthase gene (CYP11B2) codes the activity of aldosterone synthase in the suprarenal adrenal cortex influencing the Aldosterone synthesis level and RAAS activity as well.

The aim of the study was to analyze the association of aldosterone synthase gene polymorphism (CYP11B2, -344C/T) with renal function in patients with primary arterial hypertension (PAH).

The study involved 100 patients suffering from PAH with a target-organ damaging, a moderate, high or very high cardiovascular risk. Among them there were 79.0% (79) women and 21.0% (21) men, whose average age was 59.87 ± 8.02 yo. Case-control study included besides 48 practically healthy persons of relevant age ($p > 0.05$). All enrolled / screened patients signed the Informed Consent to participate in the research. Kidney function was studied by the glomerular filtration rate (GFR) after Creatinine or Cystatin-C serum levels depending on gender. Chronic Kidney Disease (CKD) was determined by GFR decrease < 60 ml/min/1,73m² with clinical course of renal functions impairment for ≥ 3 months. Aldosterone level was determined by Immuno-enzyme method ELISA. Gene polymorphism CYP11B2 (-344C/T) was evaluated by polymerase chain reaction.

The Creatinine and Cystatin-C serum levels as well as Aldosterone concentration were significantly higher in hypertensive patients with TT-genotype of CYP11B2 gene than in the



control group by 8.48% ($p=0.044$) and 6.18% ($p=0.048$), accordingly, and 2.71 times for Aldosterone level ($p<0.001$). That caused the decreasing of GFR for TT-genotype carriers after Creatinine – by 16.75-36.90% ($p<0.05$) and after Cystatin-C – by 18.12-33.44% ($p<0.05$), respectively. Moreover, T-allele increased likelihood of CKD appearance in observed population 1.48 times [OR=1.86; 95%CI:1.01-3.58; $p=0.049$], especially in T-allele females 1.53 times [OR=6.51; 95%CI:1.39-30.60; $p=0.007$]. However, the alleles of CYP11B2 gene did not associate with the common risk of PAH ($p>0.05$), Diabetes Mellitus type 2 ($p>0.05$), Abdominal Obesity ($p>0.05$) in observed population

Thus, single-factor dispersion analysis confirmed the association of -344C/T polymorphism of the CYP11B2 gene with GFR reduction in PAH patients, especially in females, measured after Creatinine and Cystatin-C serum levels ($F=10.79$ and $F=14.45$, $p<0.001$). Also, CYP11B2 gene (-344C/T) associated with Aldosterone serum elevation ($F=55,84$, $p<0,001$), particularly in hypertensive T-allele carriers ($p<0.05$).

Tsyrkot I.M.

MANUAL MUSCLE TESTING - AN INCREDIBLE COMPONENT OF MODERN CLINICAL RESEARCH

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Functional pathology dominates in the human disease system. Considering this, the use of manual muscle testing (MMT) should be considered as an indispensable component of modern clinical research. This method allows to consider the musculoskeletal system as a system that helps to evaluate the body's global homeostasis. As far as each of the diseases is accompanied by impaired function, the MMT method becomes a diagnostic tool of the body functioning evaluation.

This method is unique in the diagnosis of neuro-musculo-skeletal dysfunctions, since it detects them even before they become chronic. In light of this, we compared the causes of musculoskeletal pain of 68 patients using traditional (clinical and additional diagnostic methods) and MMT methods.

In order to obtain reliable results of our research of the causes of the pain, MMT was performed by taking into account all the protocol requirements for its implementation.

The study showed that only 9 (13%) patients were diagnosed with traditional methods of pain, and 59 (87%) with MMT.

The increasing of the interest in MMT techniques which are used in practical kinesiology, demonstrates the need to integrate them into the protocols of patients clinical observations.

When applied kinesiology techniques are used in conjunction with standard diagnostic methods adopted in today's medicine, the physician is able to understand the patient's health problems better. Clinical evaluation of movement reflex while muscle (muscles) examination provides biologically feedback to the patient's body. This phenomenon really makes diagnostics effective.

The amount of advantages of the applied kinesiology methods in the donozological diagnostics significantly exceeds the number of their disadvantages. Thus, mastering the theoretical foundations of applied kinesiology and practical skills of MMT makes it possible to find disturbances in the functioning of the body at the pre-stage of the examination.

Бачук-Понич Н.В.

ФІТОТЕРАПЕВТИЧНА КОРЕКЦІЯ ВЕГЕТАТИВНОЇ ДИСФУНКЦІЇ

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Порушення функціонування вегетативної нервової системи і, як наслідок, формування вегето-судинної дистонії (ВСД) знижує якість життя, є частою причиною непрацездатності,