- Basic treatment of pain syndrome represent not only drugs with analgesic effect, also are used central muscle relaxants, tranquilizers and non-steroidal anti-inflammatory drugs.

The treatment corresponds to national clinical protocol.

Keywords: Back pain, herniated disc, analgesics

32. BIOMARKERS FOR DIAGNOSIS OF MYOCARDIAL INFARCTION

Timercan Tatiana, Lîsîi Leonid

Department of Biochemistry and Clinical Biochemistry, State University of Medicine and Pharmacy "N.Testemiţanu", Chişinău, Republic of Moldova

Introduction: It is well known that myocardial infarction is a significant cause of deaf. Annually, several million patients seek care in the emergency department because of chest pain or other symptoms suggesting an acute coronary syndrome (ACS), but only about 10% are subsequently confirmed to have acute myocardial infarction (AMI). Current cardiac marker technologies can detect extremely small amounts of myocardial necrosis (<1.0 g). Blood testing for biomarkers of myocardial injury plays an increasingly important role for the evaluation, diagnosis, and triage of patients with chest pain.

Materials and methods: This study was aimed for comparative analysis of cardiac biomarkers and argumentation of their use for early diagnosis of myocardial infarction. The study included 120 patients, hospitalized in the Intensive Care Unit of Cardiology Clinic, from who's were taken three blood samples for biochemical analysis (within 24 hours after admission, over 10 days (the discharge) and over 2 months).

Results: The research showed that cardiac biomarkers should be measured in all patients who present with chest discomfort consistent with acute coronary syndrome (ACS). Elevations of cardiac enzyme levels should be interpreted in the context of clinical and ECG findings.

Conclusions: Cardiac troponins T and I are the preferred markers for myocardial injury as they have the highest sensitivity and specificity for the diagnosis of acute myocardial infarction. Presence of any cardiac troponin indicates a worse prognosis in patients with coronary artery disease. At the present time it appears undesirable to attempt to use hs-CRP and B-type natriuretic peptide in individual risk stratification.

Keywords: myocardial infarction, cardiac marker, cardiac troponins, prognosis

33. HEART RATE DEPENDENCE AGAINST THE TRAINING LEVEL IN RATS AT THE BACKGROUND OF INSTRUMENTAL FOOD-PROCURING MOVEMENTS

Vakoliuk Alina, Kasyanchyk Maria, Semeniuk Maxim

Scientific adviser: **Buzyka T.V.**, Associate Professor, Odesa I.I. Mechnikov National University, Odesa, Ukraine; **Vlasenko O.V.**, M.D., Ph.D., Ministry of Public Health of Ukraine, National Pirogov Memorial Medical University, Vinnytsya, Ukraine

Introduction: Certain changes evolve as a result of long-term adaptation to physical stress, especially in the cardiovascular system. Short term decrease in heart rate (HR) below its initial level with subsequent recovery was noticed and studied against the training the background of instrumental food-procuring movements in rats. The subsequent study of revealed dependence pattern may suggest opportunities for objective assessment of the training level and/or diagnostics of cardiovascular system state, thus the study of this is topical and promising. The study objective was to investigate the pattern of HR changes in rats over the background of instrumental food-procuring movements in the process of skill formation.

Materials and Methods: A group (n = 6) of Wistar male rats weighing 250-300 g was used in experiments. HR changes were being registered daily using laboratory made phonocardiographic transducer in the process of 30 minutes long training sessions of instrumental food-procuring movements during 12 days.

Discussion results: Instrumental food-procuring movements are accompanied by a validated HR decrease occurring at the moment of food ball capturing with further restoration to the original level in some seconds. The findings give evidence of direct correlation between training level and the HR decrease.

Conclusion: Combined response of the autonomic nervous and motion control systems suggests that reactions revealed are caused by a CNS joint center. Greater levels of HR decrease evolved in the process of skill improvement may contribute to more successful capturing of food balls.

Keywords: heart rate, rat, food-procuring movements

34. GENETIC CONTROL OF HYPERTENSION

Buzu Piotr

Scientific Adviser: **Cemortan Igor**, Ph.D., Head of Department of Molecular biology and Human genetics, State University of Medicine and Pharmacy "Nicolae Testemitanu", Chisinau, Republic of Moldova

Introduction: Hypertension is a multifactorial, complex and polygenic human disease that causes significant morbidity and mortality worldwide. The World Health Organization suggests that the number of people affected by hypertension will rise to 1.5 billion in 2020, or 29% of the total population by 2025. In adults there is a continuous, incremental risk of cardiovascular disease, stroke and renal disease associated with high blood pressure.Identifying risk factors for this disease is one of the main directions of research initiated by World and European scientific community. Among these, genetic factors have a decisive impact, role of genetic factors ranging from 31% to 68%.Monogenic and polygenic forms of hypertension have been described. Rare monogenic blood pressure syndromes are characterized by a major gene defect, affecting a single pathway ordinarily involving renal electrolyte balance. Thus, there is a pressing need for a greater understanding of the pathophysiological and genetic underpinnings of blood pressure regulation and dysregulation.

Purpose and Objectives: characterization of the genetic factors involved in the production of high blood pressure; classification of the etiopathogenetic factors that predispose to the occurrence of hypertension; characterization of genes involved in the control of hypertension; study the distribution of the polymorphisms II, DD, ID of the ACE gene and GG, TT, GT of the NOS gene in people affected by essential hypertension and non-affected from the population of Republic of Moldova.

Materials and methods: The study has included 30 persons, 15 affected by essential hypertension and 15 non-affected. Methods which have been used are DNA isolation, PCR and electrophoresis of DNA fragments.

Results: The results of the analysis of the ACE genotype frequency in the study group showed an increased frequency of 55% for ID genotype in compared to 25% for II and 20% for DD genotypes. The results of the analysis of the NOS genotype frequency in the study group showed an increased frequency of 72% for GT genotype in healthy individuals, the homozygous genotypes are seen with greater frequency in affected individuals.

Conclusion: There is an association between ACE and NOS gene polymorphisms with hypertension prevalence.DD genotype of ACE gene and TT genotype of NOS gene may be associated with increased risk of hypertension.

Keywords: genetic control, hypertension, ACE, NOS

35. SUICIDE CELLS IN NORMAL AND PATHOLOGICAL

Bejenari Inna

Academic adviser: **Onea Emilian**, M.D., Ph.D, Associate Professor, Histology, Cytology and embryology Department, State Medical and Pharmaceutical University "Nicolae Testemiţanu", Chisinau, Republic of Moldova

Introduction: The cells of a multicellular organism are members of a highly organized community. The number of cells in this community is highly regulated — not simply by controlling the rate of cell division, but also by controlling the rate of cell death. If cells are no longer needed, they commit suicide by