Materials and Methods: The analysis includes the "Basic Laws of Ukraine on Health", Law "On General Secondary Education", "On Protection of Childhood", "Instructions on how to provide medical and social care for HIV- infected children". In the course of our study the epistemological, comparative legal, statistical, forecasting, sociological methods have been applied.

Results: There are two ways of opening medical clinics in schools alone - through licensing or through the initial establishment of public health - clinics. Since the complex process of obtaining a license, most schools go through an agreement with the clinic. Thus the results of our survey showed an inadequate provision of medical care at school. In particular, the majority of pupils surveyed (85%) say that schools are provided with medicines, but along with that there are other problems: first of all, schools should run a clinic every day from 8:30 to 16:00 hours, rather than two - three o'clock twice a week (35%). In addition, 10% of the pupils do not even know where the school clinic is. After analyzing the features of the right to the protection of the health of HIV - infected children in the schools, we found a number of problems which are not addressed in Ukrainian legislation. In Ukraine, the most common is the disclosure of information on the status of HIV - infected child is not regulated right to store information on the diagnosis by the staff of the school.

Conclusions: Thus, analyzing the current legislation which regulates the provision of medical care to children in secondary schools and regulates the most important issues in the protection of the rights of HIV -infected children, we can conclude that in general, it meets international standards. However, some areas of relationships, for example, education and training of HIV - infected children in general medical care of minors is unsolved and require further development.

Keywords: HIV-infected children, secondary schools of Ukraine.

## 23. SECONDARY LIVER OSTEOPOROSIS

Motriuc Veronica

Scientific adviser: Tagadiuc Olga, Ph.D., Department of Biochemistry and clinical biochemistry, State University of Medicine and Pharmacy "Nicolae Testemiţanu", Chişinău, Republic of Moldova

Introduction: Liver diseases, in particular the chronic one, directly and/or indirect alter bone metabolism and composition. Osteopenia and osteoporosis develop, which are generically called hepatic osteodystrophy. Therefore, an assessment of bone metabolism, of the risk factors of hepatic osteodystrophy and bone mineral density measurement are recommended in patients with chronic liver disease. An early diagnosis of hepatic osteodystrophy is essential for the correction of the modifiable risk factors that predispose to bone loss and for the prevention of the fragility fractures.

Purpose and objectives: Was to perform a comparative study of bone mineral composition and of its changes at different stages of postnatal ontogenetic development in physiological conditions and experimental hepatic osteoporosis.

**Materials and methods:** The study was conducted on a sample of 60 white laboratory rats of both sexes without pedigree. The animals were divided according to their age in 3 groups, each one consisted of 2 subgroups – control and with secondary liver osteoporosis. The amount of calcium, phosphate, magnesium, zinc and copper was determined in the bone.

Results and discussion: The results analysis show that under physiological conditions the ontogenetic changes of bone mineral content is considerably influenced by gender: at the initial ontogenetic stages the mineral elements content is higher in females compared to males. We determined that experimental liver osteoporosis induced by long term CCl<sub>4</sub> intoxication is characterized by a relative conservation of bone apatite cardinal elements – calcium and phosphate, content at all ontogenetic stages. At the same time, the level mineral regulatory, osteotrope elements (magnesium, zinc and copper) was more sensitive and were significant differences between animals at various ontogenetic stages.

Conclusion: Preservation of calcium, phosphate and sulphate in secondary liver osteoporosis reveals a significant degree of tissue adaptation to CCl<sub>4</sub> action oriented to maintenance of the hardness, resilience and functionality of bone. The content of these minerals is closely related due to the ability of the negatively charged sulfates to fix the labile fraction of bone calcium and thus

maintain its functional accessible reserve of the tissue. This particular reserve is used to restore the normal apatite crystal lattice during the bone remodeling processes and the processes of recovery of bone mineral composition in various pathological conditions.

Key words: Osteoporosis, liver diseases, experimental secondary liver osteoporosis, mineral elements

## 24. CARDIAC SHOCK-WAVE THERAPY. A NEW METHOD OF THERAPEUTIC REVASCULARISATION OF THE HEART

Obukhovskyi Denys, Kuznetsova I.V., Savytskyy V.I., Ermilova O.A.

Academic adviser: Savytskyy Ivan, M.D., Ph.D., Head of the Division of Pathophysiology; Kuzmenko I.A. Associate Professor, Odessa National Medical University, Ukraine

**Introduction:** CHD is the leading cause of death throughout the world. Over the past 10 years in Ukraine mortality rate from cardiovascular disease has been 65%, in Moldova - 57%, when in the world  $\sim$  30%. Despite a large variety of medicines to achieve long-term therapeutic results these are obtained in only a few cases. Unlike from the traditional methods of treatment, shock wave therapy has several advantages, which will be discussed in this work.

**Purpose and Objectives:** The aim of this research was the study of innovative, safe and effective treatment of CHD - SWT. The study of method myocardial regeneration, angiogenesis, stem cell transplantation into the myocardium to patients with myocardial infarction.

Materials and methods: SWT method has long been used in urology and orthopedics. In case of using in cardiology, acoustic wave energy is less than  $\sim 10$  times, which ensures the safety of the method. In this work I used the experimental data modeling of biological models and clinical studies of patients' activated in the regional cardiac surgery center "of the city of Odessa. Statistical processing of data were carried out using Student t-test.

Results: SWT is based on mechanical stress in focus zone by transmitting an acoustic wave energy. The result of the acoustic wave is growth the amount of mRNA which encodes the NO-synthase (eNOS), leading to vasodilatation and better circulation. It was also found that improvement of blood flow in the capillaries entails release vascular endothelial growth factor (VEGF), increase of flow circulating stem cells into the ischemic zone, and increase the number of new capillaries. As a result, on the periphery of destruction – there is observed cellular hypertrophy of cardiomyocytes. In the area of ischemia is observed replacement of myocardial tissue by connective tissue with atypical architectonic microvasculature due to angiogenesis.

SWT application results became:

- 1) Reduction of the functional class of angina
- 2) Reduction of usefulness of nitrate
- 3) Growth of tolerance to load
- 4) Improvement of myocardial perfusion SPECT in this
- 5) Improvement of LV function according to echocardiography

**Conclusion:** Results of experimental and clinical studies allow characterizing SWT as a safe and highly effective method in treatment in patients with coronary artery disease.

Keywords: shock-wave therapy, coronary artery disease, angiogenesis

## 25. DECISION OF THE EUROPEAN COURT OF HUMAN RIGHTS IN THE HEALTH SECTOR IN THE CONTEXT OF UKRAINIAN LEGISLATION

Pavljuk Natalija

Academic adviser. Verlan-Kulshenko Olena, deputy head of the medical law, Department of Anatomical pathology, Forensic pathology and Medical law, National Pirogov Memorial Medical University, Vinnytsya

**Introduction:** The political section of the Ukraine–European Union Association Agreement (a treaty between the European Union and Ukraine that establishes a political association between the two parties) was signed on 21 March 2014. Thus, the Association Agreement should be applied