Министерство Здравоохранения и Социального развития РФ
Амурская Государственная Медицинская Академия
Студенческое научное общество
Ministry of Public Health of Russian Federation
Amur State Medical Academy
Students Scientific Society

He who knows no foreign language does not know his own one

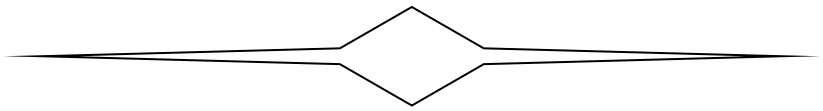
J.W. Goethe

СБОРНИК ТЕЗИСОВ
19Я НАУЧНАЯ СТУДЕНЧЕСКАЯ КОНФЕРЕНЦИЯ НА ИНОСТРАННЫХ ЯЗЫКАХ

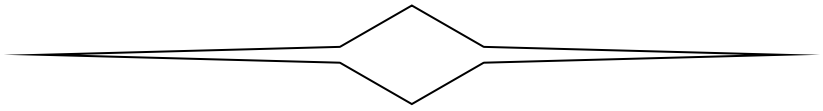
ABSTRACTS
18th SCIENTIFIC STUDENTS CONFERENCE IN FOREIGN LANGUAGES

21 ДЕКАБРЯ 2009г

Благовещенск 2009г.



Science is the effort to discover and increase
human understanding of
how the world works. On the one hand,
through controlled methods
scientists use observable physical evidence of
natural phenomena to
collect data and analyze this information to
explain what and how
things work. On the other hand, science is
nothing but the faith, the
faith that human brain can order the external
reality. What is the
science then?



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ABSTRACTS 18th SCIENTIFIC STUDENTS CONFERENCE IN FOREIGN LANGUAGES

21 ДЕКАБРЯ 2009г

Благовещенск 2009г.

Сборник тезисов докладов 19[й] студенческой научной конференции на иностранных языках под редакцией председателя Совета НИРС АГМА
проф. Е.А. Бородина.
Благовещенск 2009г.

Сборник тезисов докладов 19[й] научной студенческой конференции на иностранных языках содержит тезисы 84 докладов, заслушанных на трёх секциях:

- Английского языка
- Немецкого языка
- Французского и латинского языков

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- **С.Н. Недид**—член Совета СНО АГМА (технический редактор)

Section of the English Language

1. THE PRESENTATION OF KYOTO CITY

Ohya N. – the 4th-year student

Kyoto is one of the beautiful cities in Japan.
Today I tell you some good points, from the experience of my life in Kyoto.

2. HAVE YOU TRIED JAPANESE ALCOHOL?

Nakano K – the 4th-year student

There are many Japanese bars in Takatsuki city, which Osaka Medical College is located in.
I would like to introduce the way of enjoying Japanese alcohol.

3. THE SEASONS IN OSAKA

Fukumoto M – the 5th-year student

In Japan, there are four seasons and they have difficult features.
This time, I will talk about how to enjoy them with using beautiful photographs.

4. NANOTECHNOLOGIES IN MEDICINE.

Skolubovich A.–the 4-th year student
Scientific leaders–Professor Borodin E.A., Teplichsheva M.M.

Now we evaluate danger of the surprising world - the world of the nanotechnologies. What will be this tomorrow in the new world? The Youth is familiar for this world owing set buty to fantastic novels, computer games, films.

Nanotechnologies is manufacture of devices and their components necessary for creation, processing of atoms and molecules, and also particles which sizes are within the limits of from 1 up to 100 nanometers.

Nanotechnologies now are in an initial stage of development, as the basic opening. Predicted in this area are not made yet. Nevertheless, carried out researches already yield practical results.

Last decade there was a new direction in a science and technologies - nanobiotechnology. It promotes close cooperation of sciences about alive with physics, chemistry and engineering.

Nanomedicine is a correction, designing and the control over biological systems of the by person at a molecular level with use of the developed devices and structures.

At the present time based on nanotechnologies developed devices

that can perform operations on the diagnosis and monitoring to the destruction of pathogenic microorganisms, recovery of damaged organs, supply the body necessary with substances.

Modern diagnostic devices simply do not see fabric fibers in the blood, signalling about the beginning of diseases or changes of a condition of an organism. Last development allow to solve this problem successfully enough.

For medical diagnostics are created semi-conductor нано wires by thickness in some atoms, located between electrodes on the most thin platform. On a surface of these wires put fibers - the antibodies capable specifically to connect fibers - antigenes and virus particles. Intermolecular interactions are registered on change of conductivity of a wire. By means of such detector it is possible to register an individual virus particle.

The widest application in biology and medicine was found with optical biosensor controls. These are the new analytical devices using a biological material for "identification" of molecules and giving information on their presence and quantity in the form of an electric signal..

A variety of "know-how" of Fullerens and their derivatives allows to plan essential expansion of a spectrum of application as medicines.

Medicines in the form of nanoparticles possess a lot of advantages: in the high speed of dissolution raised by bioavailability, fast therapeutic effect, risks of development of collateral action decrease.

Medicines in the form of nanoparticles possess a lot of advantages: in the high speed of dissolution raised by bioavailability, fast therapeutic effect, risks of development of collateral action decrease.

Introduction nanotechnologies in biology and medicine is capable to expand essentially opportunities of application of competitive results of researches in medicine, pharmacology, an agriculture already in the near future.

Thus, nanotechnologies, as well as information technologies, are called to change our representations about world around. One of the primary goals of nanotechnologies - to fill that precipice which exists between the alive and lifeless nature.

5. ULTRAPHONOPHOREZ WITH "DOLGIT"- CREME IN TREATMENT OF OSTEOARTROSIS AND RHEUMATIC ARTRITIS.

Dobrovolskaya D. - the 6th year student

Scientific leaders - ass. Professor Sivyakova O.N., Gudkina T.A.

The evidence of osteoartrosis and rheumatic arthritis is articular syndrome, which consists of the articular's pain, oedema, deformation of

joints and decrease of the number of movements.

The people, who are suffering from these diseases, have to use the drugs for a long time. Usually they use the nonsteroidal anti-inflammatory drugs per os or in injections. But these drugs have many adverse side-effects: they cause gastritis and may increase the incidence of gastric ulcers. They are also can inhibit haemostasis.

As already reported, nonsteroidal anti-inflammatory drugs in creme can get the pathological area, articular capsule and sinovial fluid.

Ultraphonophorez with "Dolgit"-creme (in lOOg of creme is contained 5g of ibuprofen) is combined effect of ultrasound and "Dolgit"-creme. The creme with ultraphonophorez can be concentrated in pathological area without adverse side-effects.

The study was done in 30 patients (15 male and 15 female). 24 patients have osteoartrosis, and 6 - rheumatic arthritis at ages 24 and 62. The duration of diseases is at 1 till 27 years. Before the study all patients were examinated and they were done the joint's roentgenographia.

There were 2 groups of patients. The first group (20 patients) got medicamental treatment and ultraphonophorez with "Dolgit"-creme on joints. The power of ultrasound was 0,2 - 0,4 vt/cm. The time of effects was 5 minutes. The second group was controlled-group. They got medicamental treatment and only ultrasound on joints.

The results of the study show, the 17 patients (85%) from the first group have an increase of a number of joint's movements; 3 patients (15%) have a relieved of a pain and articular syndrome.

In controlled-group 6 patients (60%) have an increase of a number of joint's movements; 1 patient (10%) has a relieved of a pain, and 5 patients (50%) have a decrease of pain. During the study all patients have no adverse side-effects.

In summary, patients, who are suffering from osteoartrosis and rheumatic arthritis, need a combined treatment, which leads to relieve a pain and increase the number of movements.

6. AGE CHANGES OF A SKIN.

Orlov I.-the 2nd year student
Scientific leaders-CMSc. Labzin V.I., Rudenko A.I.

Our society is preoccupied with the "culture of beauty" (Lappe, 1996) which includes the notion that our skin must always look young and appear free from blemish. Our psychological well-being is often closely enmeshed with perceptions of how our skin appears to ourselves and others. We define our self-image to include the visible representation of our

skin to others, so as a result, it has become the "primary canvas on which our cultural and personal identity is drawn" (Lappe, 1996). Cosmetic companies set aside concepts of natural beauty so that flaws such as large pores, fine lines and wrinkles are brought to the fore, influencing our spending habits in pursuit of flawless skin.

Dry Skin

Dry skin is a common aspect of the aging process and is observe in most people over 70 years. As skin ages, the physiological changes leading to dryness result in itching and flaking, especially when the weather is cold and dry. This is both to a decrease in secretions from the oil glands and a reduction in the skin barrier leading to quicker skin irritation.

Except aging, a severely dry skin can indicate various condition e.g. psoriasis, diabetes, liver or kidney disease, or an overactive thyroid gland, allergic reaction. Itching can also indicate a reaction to a number of medication or drugs, including anticancer drugs. As one ages, our skin also becomes more susceptible to irritation from contact with various materials, a condition known as contact dermatitis. This could indicate an allergy has developed to any substance including: wool or lanolin, the oil in wool, soap, detergent, or bleach used in the wash. Prevention of Contact Dermatitis includes: wearing loose fitting clothing; changing your laundry detergent; washing new clothes before wearing them. Regular soaking with Dead Sea bath salts and then applying a moisturizer recommended by your doctor can also alleviate uncomfortable symptoms. This is due to the high mineral content in the Dead Sea Salt, which helps both in cleansing and replacing required electrolytes necessary for healthy skin.

Our recommendations:

•Regular visites at the cosmetician;

•Injections - a planimetric plasticity, preparations relaxants (Botoks, Disport), mesotherapy;

•Massages;

•Phototherapy;

•Hardware physiotherapeutic techniques;

•Median and deep chemical peelings;

•Laser therapy;

•Special cosmetics (cellular, nanotechnology);

7. SUMMER CLASSES FOR STUDENTS OF THE AMUR

STATE MEDICAL ACADEMY IN THE OSAKA MEDICAL COLLEGE.

Vikhreva D. – the 3th year student
Scientific leader – Prof. Borodin E.A.

From the 3rd till 17th of July 2009 Prof. of Biochemistry Borodin E.A. and four students (a graduated student of ASMA Agarkov Alexander; Kurchenko Dmitry, Pushkareva Veronika – the 4th year students; Vikhreva Darya the 3rd year student) from ASMA visited Osaka Medical College (OMC) during Japanese-Russian Medical Exchange Program. It is the fourth summer visit of our medical student's to the OMC. The participated in the practical courses including scientific and cultural parts. Our program started from cultural part. It was very interesting, rich and productive program. We visited Kyoto – the ancient capital of Japan, where we saw the Golden Pavilion, Kiyomizu Temple and more then beautiful monuments of Japanese culture, like gardens, castles, mountains, famous temples. Also we had several excursions in Osaka. When we had free time we could meet with students from OMC and walk along the streets of they town, visit Japanese café and restaurant. It helped us to know more about Japanese culture, traditions and life style. Japanese nature gave a great impression to our students.

Scientific program was also rich and fascinating. We were attending interesting lectures about Dentistry and Oral Surgery by Prof. Shimahara and about Cardiovascular Surgery by assistant of Cardiosurgery department. Under the guidance of the skilled doctors (from OMC, Nursing School) we had a lot of precious opportunities to get practical skills examining special lay figure. It is unusual for us, but Japanese students have no possibilities to come into touch with the patients. Till the 5th year they don't have contact with patients.

Also we had a chance to take part in the surgical operations in Thoracic, Cardiovascular, Anesthesiology, Neurosurgery, Dentistry and Oral Surgery departments. In department of obstetrics and gynecology we attended the accouchement.

During 2-days we attended classes in surgery, Therapy, Gastroenterology in Hokusetsu General Hospital. In this hospital we also took part in the surgical operations.

During the visit in OMC we got great theoretical and practical experience in different medical subjects. Moreover, we learnt more about studing and life of students from Japan.

8. THE STRUCTURE OF THE ARTERIAL CHANNEL OF

UTERUS OF A WHITE RAT.

Nuriyev E. C. – the2nd year student.
Scientific leaders - DMSc. Gordienko E. N., CMSc. Seliverstov C.C., Ambroseva N.P., Rudenko A.I.

Nowadays the problems of pregnancy of a woman become more and more frequent and important. The diseases which are progressing become incurable. Scientists study on rats the investigations of different drugs and their influence on organism and make the basis emphasis on this study. However in the literature available for us the data about blood supply sources, a structure, a form, quantity, topography of arteries and veins of an uterus of a white rate are not sufficient and contradictory. Meanwhile this knowledge is necessary in the evaluation of plastic compensatory possibilities of blood channel of an uterus at carrying out of various experimental researches. To determine the basic quantitative and topographical feature of the blood channel of an uterus and microcirculatory blood channel of an mesentery of white rats the given research has been carried out. The work has been executed on 85 females of purebred white rats (Rattus norvegicus) Rodencia group, Muridae family. Binocular microscope MBC – 9 and the Austrian microscope «Micros» with a digital camera (DCM35) and the computer program «Biovision 3,0» have been used in the work. In sprite of the fact that scientists have been putting on 120 years experiences on rats, till now an exact structure has not been described. The exact data about the sizes and quantities of vessels have been determined, that will help in further studying of different human diseases.

9. SUICIDE AND MENTAL ILLNESS.

Bova E. – 2nd year student
Scientific leader – Amoshiy O.V., Rudenko A.I.

Suicide (Latin *suicidium*, from *sui caedere*, to kill oneself) is the intentional killing of one's self. Suicide may occur for a number of reasons, including depression, shame, guilt, desperation, physical pain, emotional pressure, anxiety, financial difficulties, or other undesirable situations. The World Health Organization noted that over one million people commit suicide every year, and that it is one of the leading causes of death among teenagers and adults under 35. There are an estimated 10 to 20 million non-fatal attempted suicides every year worldwide.

Medically assisted suicide (euthanasia, or the right to die) is currently a controversial ethical issue involving people who are terminally ill,

in extreme pain, and/or have minimal quality of life through injury or illness. Self-sacrifice for others is not usually considered suicide, as the goal is not to kill oneself but to save another.

Over fifty percent of suicides are related to alcohol or drug dependence. Approximately 25 percent of drug addicts and alcoholics commit suicide. High rates of major depressive disorder occur in heavy drinkers and those who abuse alcohol. Alcohol misuse is associated with a number of mental health disorders and alcoholics have a very high suicide rate. In adolescents the figure is higher with alcohol or drug misuse playing a role in up to 70 percent of suicides. The predominant view of modern medicine is that suicide is a mental health concern, associated with psychological factors such as the difficulty of coping with depression, inescapable suffering or fear, or other mental disorders and pressures. A suicide attempt is sometimes interpreted as a "cry for help" and attention, or to express despair and the wish to escape, rather than a genuine intent to die. Most people who attempt suicide do not complete suicide on a first attempt; those who later gain a history of repetitions have a significantly higher probability of eventual completion of suicide.

According to official statistics, about a million people die by suicide annually, more than those murdered or killed in war. According to 2005 data, suicides in the U.S. outnumber homicides by nearly 2 to 1 and ranks as the 11th leading cause of death in the country, ahead of liver disease and Parkinson's disease. Worldwide suicide rates have increased by 60% in the past 50 years, mainly in the developing countries. Most suicides in the world occur in Asia, which is estimated to account for up to 60% of all suicides. According to the World Health Organization, China, India and Japan may account for 40% of all world suicides.

In the Western world, males die much more often by means of suicide than do females, although females attempt suicide more often. Some medical professionals believe this stems from the fact that males are more likely to end their lives through effective violent means (guns, knives, hanging, etc.), while women primarily use less severe methods such as overdosing on medications.

Medical View on suicide: In the United States, individuals who express the intent to harm themselves may be automatically determined to lack the *present mental capacity* to refuse treatment, and can be transported to the emergency department against their will. An emergency physician will determine whether inpatient care at a mental health care facility is warranted. If the psychiatrist determines the person to be a threat to himself or others, the person may be admitted involuntarily to a psychiatric treatment facility. This period is usually of three days duration. After

this time the person must be discharged or appear in front of a judge.

Suicide and mental illness: Studies show a high incidence of mental disorders in suicide victims at the time of their death with the total figure ranging from 98% to 87.3% with mood disorders and substance abuse being the two most common.

Many studies measuring incidence of psychiatric disorder in suicides employ after-the-fact diagnosis. Such studies are often criticized for lack of objectivity. The main argument is that a decision of the psychiatrist is biased if he believes that suicidal people must be mentally ill.

If someone asks, 'How do you know they are mentally ill?' the implied answer is, 'Because only mentally ill persons would try to commit suicide.'

10. EMOTIONALLY-PERSONAL AND COGNITIVE DISTURBANCES IN PATIENTS WITH DISSEMINATED SCLEROSIS

Konkova D.- the 5th year student

Scientific leaders: C.M.Sc. V.I. Eryomenko, M.V. Pogrebnaya, LA. Bibik

The higher cortical function disturbances and mental sphere changes are the most disabling clini-cal manifestations of the demyelinating process. The purpose of present research was to study the structure of emotionally-personal and cognitive disturbances in patients with disseminated sclerosis (DS). 32 patients with revealed DS, being on treatment in the neurological department of the Amure Regional Clinical Hospital during 1997, 1998, 1999 and 2008 years were exam-ined. The control group consisted of 30 healthy people (14 women and 16 men). The short-term memory indices in patients with DS were authentically lower than in control group. The authen-tic decrease of the number of the correct sums while passing through the test and the increase of the mistakes were revealed during the study of attention in comparison with the control group (P= 0.004). More significant differences were found out while using the Shulte's test in patients of the experimental group in comparison with the control one. The Raven's test results confirmed the cognitive function disturbances in patients with DS. The analysis of reactive and personal anxiety was performed using C.D.Spilberg's-Y.M.Chanin's method. The patients with PPDS had higher reactive and personal anxiety indices in comparison with the patients with RRDS and secondary progressive DS. The authentic differences if the reactive and personal anxiety indices were not revealed in patients with secondary progressive DS in comparison with those with re-current remittent DS. Anxiety as personal quality in patients with recurrent remittent DS and secondary progressive DS didn't get to the

highest level and remained at low level in negative situations. Reactive and personal anxiety in patients with the debut of DS was significantly higher than in control group. Patients with primary progressive DS had higher indices according to psychopathy, psychasthenia, paranoid syndrome, autism scales. This group had higher indices according to hypochondria, depressive status, hysteria scales. Significant differences were re-vealed between the patients with secondary progressive DS and recurrent remittent DS only ac-cording to hypochondria and psychasthenia scales.

11. THE USE OF DENAS-THERAPY IN THE TREATMENT OF CHILDREN WHITH ACCOMMODATION SPASM

Gosteva A. A.-the 5th year student.
Scientific leaders: Prof Shtilerman A. L., C.M.Sc. Mikhalsky E. A., BibikLA.

According to medical statistics, every sixth student suffers from accommodation spasm. Nowadays accommodation spasm is considered to be one of the causes of the progressive myopia development among young people.

DENAS is a method of transcutaneus electroneurons adaptive stimulation of the biologically active points by local impact through electrodes. There is a biological feedback in the DENAS therapy basis. Due to our research we have estimated the DENAS therapy effectiveness in children with accommodation spasm. The criteria of the effectiveness are the reserve of relative accommodation (RRA), visual acuity and refraction.

There were 68 patients (82 eyes) aged from 8 to 12 years with accommodation spasm under the observation. 36 patients (40 eyes) (the experimental group) were carried out with DENAS therapy. The duration of the treatment was 10 days (5 minutes a day) with special apparatus - «DENAS-glasses». The control group consisted of 32 patients (42 eyes) who were treated with the medication (irifrin solution 2.5% 1 drop twice a day during the month). After the treatment in the experimental group visual acuity was improved on average from 0.50 ± 0.03 to 0.95 ± 0.06 ($P < 0.01$). After the treatment in the control group visual acuity was increased from 0.54 ± 0.02 to $0.74 +0.08$ ($P < 0.01$). The results of accommodation spasm treatment with DENAS-therapy proved that in the experimental group the relative supply of accommodation has increased on average from 2.36 ± 0.61 to 9.86 ± 0.59 dptr. ($P > 0.01$). After treatment in the control group the relative supply of accommodation has increased on average from 2.48 ± 0.58 to 6.27 ± 0.63 dptr. ($P > 0.05$). In the experimental group of patients after the DENAS-therapy course the relies of refraction

was observed in 89.6% of cases (40 eyes), on average it is from of 2.25 ± 0.25 to 0.95 ± 0.35 dptr. (P> 0.05). In the control group after the treatment, we observed a weakening of refraction in 64.3% of cases (27 eyes) on average it is from 2.15 ± 0.35 dptr to 1.45 ± 0.29 dptr. (P> 0.05).

The results of our research are the following: the use of DENAS-therapy method for the treatment of patients with accommodation spasm leads to significant weakening of the refraction, raising of the accommodation reserves and visual acuity. The effect of treatment was found out in 89.6% of cases, while the traditional approach provides success only in 64.3% of cases.

12. THE POSSIBILITIES OF T SUBSTITUTIVE METHODS OF SURGICAL PATIENTS TREATMEN

Kurchenko D. – the 4-th year student
Scientific leaders – ass. Professor Sysolyatin A.A., Teplishcheva M.M.

In accordance with «The conception of development- of public health services and a medical science- in the Russian Federation» approved by the government on November 5th 1997, and -in order to increase the efficiency of usage of the resources in public health services it provides the medical service reorganization that allows to reduce duration-of in patient stage and to redistribute- a some help from in-patient sector to the out-patient. It is necessary to distribute- the beds number depending on intensity of medical-diagnostic process with- providing of duration at all stages- of treatment and to develop-in-patient substitutive technologies in polyclinics.

Reduction of invasive methods and traumatism during surgical interventions is the up-to-date tendency of development. Less-invasive and non-in-patient substitutive methods that mostly satisfy requirements get special value in modern surgery because of necessity of treatment of the patients with a plural pathology.

Introduction of in-patient substitutive and less-invasive technologies according to the review of the data presented in the literature is caused by:

1. Medical advantages: the range of infectious complications fluctuates from 0% to 1,3%, low level (4,6%) or absence of postoperative complications, medical aid during home staying required only 4 % of patients, frequency of rehospitalisation is from 0,62% to 3%, death rate is 0,9%.

2. Economic advantages (according to different authors replacement of stationary surgery by out-patient surgery reduces the general ex-

penses for one patient for 50-60%).

3. Patients support (decreasing duration of time till operation, possibility to preplan personal time before operation, absence of a psychological trauma in heavy postoperative cases, rapid health recover in house conditions, decreasing of an intrahospital infection risk, reduction of economic expenses).

Stages of surgical treatment of patients in the ASC:

- primary survey, preoperative inspection of patients and definition of indications to surgical operation;
- preparation of the patient for surgical treatment;
- surgical treatment in ASC;
- conducting of the early postoperative period in a day hospital;
- supervision at in-home hospital;
- out-patient treatment in surgical department polyclinic.

Development of non-in-patient substitutive technologies in surgical practice occurs in two directions:

- expansion of volumes and origination new structures and types of functioning in polyclinics and diagnostic centers: a day hospital, a supervision hospital in-home, an ambulatory surgery centers (ASC);
- introduction of non-in-patient substitutive technologies in hospitals: a hospital of one day, a hospital of short-term stay, a day hospital, department of day surgery, carrying out planned surgical operations at the day of admission to hospital, etc.;

Thus, he organization and introduction of non-in-patient substitutive technologies is the rational decision that meets requirements of both directions of reforming of the hospital help.

13. PHENOMENON OF INTRANARCOTIC AWAKENING.

Dimova M. – the 4th year student
Scientific leader – Ass. Prof. Anokhina R.A., Teplishcheva M.M.

Every year more than 21 million people receive general anesthesia. The majority of them are calmly plunged into deep sleep. They remember nothing. But 30 thousand of patients are less lucky. It is turned out they can't get away from reality. This phenomenon is known as "intranarcotic awakening". Reasons for intranarcotic awakening. 1. General state of a patient. The possibility of intranarcotic awakening is more frequently so much the worse a patient's initial state. Majority of anesthetic drugs has side effect. Frequency of its appearance depends upon the dosage of anesthetic and the weight of patient's gravity. So during the process of general anesthesia a doctor uses his own experience, infor-

mation about pulse, blood pressure and other facts. The risk of intranarcotic awakening can be higher for the patients taking drugs acting upon brain, such as soporific, alcohol, narcotics and some other pills for a long time. In this case a larger dose of anesthetic than usual can be required for such patients. To choose it while composing the general plan of anesthesia can be rather difficult. 2. The choice of general anesthesia methods. The frequency of intranarcotic awakening cases depends upon the method of general anesthesia. It happens when ketamin is used (27 – 31%), neuroleptonalgesia (11 – 13%), nitrous oxide (4 – 25%) more frequently. Unfortunately, the overwhelming majority of anesthesia cases up to now days are being conducted with these anesthetics in our country. Meanwhile, modern means for general anesthesia considerable readuce the risk of that and other intra and postoperative complications. So in total intravenous anesthetic on the basis of midosolam or propophole in mixing with phentanile the frequency of intranarcotic awakening reaches 0,9 – 1,5%, usage of inhalation anesthetic isofluran or sevofluran do not reach 0,2 – 0,5%. The possibility of using these drugs must be discussed with the doctor. 3. Monitoring of anesthesia intensity. The patient's state, methodic of anesthesia conducting plays an important role in mechanism of intranarcotic awakening. However, the key role belongs to the absence an objective information on concerning the level of patient's conscience oppression on every phase of the operation. For solving this task special monitors are used. In real time regime they provide for registration of patient's encephalogram, automation processing and transformation of data received in number, appearing on monitor. So, intranarcotic awakening is the serious complication of general anesthesia. This knowledge needs for every patient not for refusal from treatment, but for discussing the problem with a doctor and choose such methodic of treatment and monitoring, that provide mostly high-quality, comfortable and safe in anesthesia.

14. MY IMPRESSIONS OF SEPTEMBER SCHOOL-CONFERENCE IN VLADIVOSTOK.

Piskun M.S. - the 5th year student
Scientific leaders - Prof. Borodin E.A., Bibik LA.

A lectures week — is very interesting time, isn't it? As for me these days are wonderful especially if you spend them in picturesque place on the coast of the Pacific Ocean with your friends.

I would like to tell you how one September week can be fascinating and useful for you.

From the 7th to the 14th of September «The XIIth All-Russian School

-Conference on Actual Questions of Chemistry and Biology» was held. The organizers chose a very beautiful place - the bay «Troizza», where the scientific experimental centre of the Tihooceanskiy Institute of Bioorganic Chemistry is situated.

Nine students from the 3^{d}, 5th and 6^{lh} courses of ASMA under the guidance of Professor Borodin were sent to the school-conference in Vladivostok. Two days of travel by train got us from autumn to summer. Our train arrived early in the morning. We went to the Tihooceanskiy Institute of Bioorganic Chemistry by bus and after the meeting with organizers and other delegations we went to the scientific experimental centre of the Tihooceanskiy Institute. Geography of participants of the school-conference was rather wide. The delegations were from different Russian cities: Novosibirsk, Syktyvkar, Moscow, Vladivostok, Khabarovsk, Blagoveschensk and many others.

Every day we had to attend three cycles of lectures: after breakfast, dinner, and before supper. The study program was rather hard. We attended a great number of lectures in chemistry, biochemistry, biology. Other lectures were devoted to innovations in different branches of natural science.

The lectures were delivered by the leading scientists from different Universities of our country and abroad. Among them were the lecturers from the USA and Spain. It is necessary to say that all lectures and lessons were very interesting and really useful for me.

On the other hand taking part in the school-conference in Vladivostok was a great possibility for the students to prolong summer holidays. Almost every day we found time to swim, get sunburn, and go for a walk. That week left a lot of bright impressions on all participants. I think it's great that there exist the All-Russian School-Conferences on Actual Questions of Chemistry and Biology, because it s a great stimulus for mastering medicine.

15. USING DIHYDROQUERCETIN IN THE TREATMENT OF CHRONIC TONSILLITIS.

Blotsky R. - the 6-th year student
Scientific leaders – Professor Blotsky A.A., Yegorova V.D.

Introduction.

Chronic tonsillitis (CT) takes one of the leading places in the structure of ENT-diseases and composes around 4-15%.

Chronic inflammatory process in palatine tonsils leads to the immunological dysfunction. In this case palatal tonsils become the source of

chronic infection themselves.

Searching for the new methods of the conservative treatment of CT is still very actual. Nowadays antioxidants are used in many branches of medicine, including otorhinolaryngology. We use new antioxidant medicine - dihydroquercetin.

Material and methods.

The purpose of our work was to estimate the efficiency of dihydroquercetin in the treatment of CT. For the period of 2005-2006 we observed 52 patients with CT at the age of 18-54 years. Two equivalent groups of patients were formed. The first group consisting of 26 people (50%) got the traditional therapy of palatine tonsils with antiseptic solution during 14 days. The second group consisting of 26 people (50%) got an antioxidant therapy of palatine tonsils with 0,5% solution of dihydroquercetin during 7 days. Efficiency of the treatment was valued by lipid peroxidation and AOP (antioxidant protection) factors of the blood serum before and after the treatment. These results were compared with the results of the checking group of healthy people (20 persons).

Results and discussion.

In the first group of patients lipid peroxidation factors did not reach the factors of the checking group and were at the high level (lipid hydroperoxydes (LH) - 33,1±0,5 nmol/ml, malondialdehyde (MDA) - 6,5±0,4 nmol/ml, dien conjugates (DC) - 48,2±0,6 nmol/ml. The same factors in the second group changed a lot. They corresponded to the checking group results by the end of the treatment (LH - 30,2 nmol/ml, MDA - 6,1±0,2 nmol/ml, DC - 46,3±0,5 nmol/ml).

As for AOP factors, in the first group of patients changes were not significant and did not reach the rates (α-tocopherol - 26,6 mkg/ml, ceruloplasmin - 18,2 mkg/ml). In the second group they went up to the checking group results (α-tocopherol - 24,5 mkg/ml. ceruloplasmin- 17,1 mkg/ml).

Comparing results before and after the treatment we found out: the second group of patients, who were treated with antioxidant got practically normal LP and AOP-results.

Conclusions.

Thereby, the results of biochemical research have shown that the local therapy of palatine tonsils with antioxidant is more efficient than the traditional therapy. Moreover this method reduces the time of the treatment. This preparation has the influence on the molecular level. It does not break the natural biosystem of palatine tonsils and the oral cavity, and decreases the evidence to tonsillectomy a lot.

16. MORPHO-FUNCTIOUNAL CHARACTERISTICS OF

LIMBIC SYSTEM.

Gordienko U., Kiyashko A., Nabiev A,- the 2nd year students
Scientific leader-Zherepa L.,G., Teplishcheva M.M.

Limbic system is a combination of a number of human brain structures including subcorticl and cortical formations.

Subcortical formations include the anterior nuclei, visual tuber, hypothalamus, lentiform nucleus, shell, caudate nucleus, transparent septum, papillary bodies, and central substance of medial brain.. Cortical formations consist of gular gyrus, hypocampp, cortex of front terminal dole.

All structures of limbic system are connected according to the anatomical and functional features and between these features there are the simple two-sided connections and complicated ways forming a majority of closed cycles.

Functions of limbic system are:1) emotional and willpower spheres of physical activity of a person: perception and storage of information, change of motivate behavior and i.e.; 2) educational process' 3) formation and realization of HVS; 4) maintenance of homeostasis;5) regulation of activity of internal organs; 6) provision of complicated forms of behavior (sexual, digestion, defensive instincts and i.e.) .

The symptoms of damage: weakness of will unreasonable aggressiveness, emotional weakness, sexual eruptions, disturbances of memory, slowing of rate basic nervous of processes, absence of felling of threat, disturbances of vegetative functions and i.e.

C onclusion: limbic system plays a great role in substance exchange, maintenance of organism homeostasis, changes of environment, consideration of formation of social behavior. But we must say that some scientific authors suppose it to be a part of a human body, others as a system of organism

17. MUITIPLE SCLEROSIS

Kopotaeva D.A.- the 4th year student
Scientific leades- Barabash I.A., Teplishcheva MM.

Multiple sclerosis is one of the most common diseases of the central nervous system (brain and spinal cord). MS is an inflammatory demyelization condition. Myelin is a fatty material that insulates nerves, acting much like the covering of an electric wire and allowing the nerve to transmit its impulses rapidly. It is the speed and efficiency with which these impulses are conducted that permits smooth, rapid and co-coordinated

movements to be performed with little conscious effort.

In multiple sclerosis, the loss of myelin (demyelization) is accompanied by a disruption in the ability of the nerves to conduct electrical impulses to and from the brain and this produces the various symptoms of MS. The sites where myelin is lost (plaques or lesions) appear as hardened (scar) areas: in multiple sclerosis these scars appear at different times and in different areas of the brain and spinal cord. The term multiple sclerosis means literally many scars.

The cause of multiple sclerosis is not yet known, but thousands of researchers all over the world are meticulously putting the pieces of this complicated puzzle together. The damage to myelin in MS may be due to an abnormal response of the body's immune system, which normally defends the body against invading organisms (bacteria and viruses). Many of the characteristics of MS suggest an 'auto-immune' disease whereby the body attacks its own cells and tissues, which in the case of MS is myelin. Researchers do not know what triggers the immune system to attack myelin, but it is thought to be a combination of several factors.

One theory is that a virus, possibly lying dormant in the body, may play a major role in the development of the disease and may disturb the immune system or indirectly instigate the auto-immune process. A great deal of research has taken place in trying to identify an MS virus. It is probable that there is no one MS virus, but that a common virus, such as measles or herpes, may act as a trigger for MS. This trigger activates white blood cells (lymphocytes) in the blood stream, which enter the brain by making vulnerable the brain's defense mechanisms (i.e. the blood/brain barrier). Once inside the brain these cells activate other elements of the immune system in such a way that they attack and destroy myelin

Multiple sclerosis is a very variable condition and the symptoms depend on which areas of the central nervous system have been affected. There is no set pattern to MS and everyone with MS has a different set of symptoms, which vary from time to time and can change in severity and duration, even in the same person.

There is no typical MS. Most people with MS will experience more than one symptom, and though there are symptoms common to many people, no person would have all of them. Unlike many other diseases, there is no straightforward ‘positive or negative’ test for MS and none of the range of tests available to help doctors with their diagnosis is 100 percent conclusive on its own. This means that ultimately a doctor will diagnose MS by a combination of observing a person’s symptoms, and ruling out other possibilities.

18. ECG DISPERTION-MAPPING IN PAATIENTS WITH ISHERMIC HEART DISEASE.

Tsyganchuk I.- a f4th-year student
Scientific leaders- c.m.sV.I. Pavlenkom M.M. Teplishcheva

The development of computer technologies, up-to-date methods of digital processing of electrocardiography (ECG))-signal conditioned the development and wider usage of the new ECG systems with fundamentally new diagnostic capabilities (ECG of the 3d and 4th generation) in the daily clinical practice. First of all it's necessary to underline ECG-mapping. The main idea of the method is the analysis of the standard and pathology of low-frequency changes of the signal from cycle to cycle using the new myocardium electrodynamics model of myocardium. It allows to get the qualified different information inaccessible under traditional ECG visual analysis, but by noninvasive method. Finally, the heart picture is indirect integral detector of the changes of electric characteristics of ion cardiac myocyte channels. Heart picture changes reflect electrolyte, metabolic or organic myocardial changes, i.e. the information of the current myocardium state and its dynamics is provided.

The analysis includes the data of 18 patients with an acute myocardial infarction (AMI) of the different localization examined on the 3d day after the onset of the disease. The diagnosis was made on the basis of clinic instrumental examination methods. The control group consisted of 15 conditionally healthy people, of comparable age, sex, without any case history and ECG symptoms of heart disease. Our research revealed the essential differences of dispersion characteristics in patients with AMI compared with the control group, such parameters like "myocardium" %, "rhythm" %, color spectrum. The group under the control was characterized by the integral index of myocardium changes (IIMC) 15% lower and the lack of dispersion deviation with the green color display of "heart picture". The colored display of the heart picture of in AMI patients was characterized the appearance of by the red shades on the quasiepicardim. Statistically the IIMC index and "rhythm" % were higher.

The new method of ECG dispersion-mapping according to the color spectrum change and IIMC enables quickly evaluate the myocardium state changes with noninvasive method..

19. THE CLINICAL PECULIARITIS OF THE PRIMARY

DIAGNOSED DIABETES MELLITUS.

Shamina O.S. -the 4th year student
Scientific leader – ass. Prof. Tanchenko O. A., Teplishcheva M.M.

The most informative and up-to date method of diabetes mellitus diagnostics is C-peptide test. Blood serum C-peptide is the fragment of the proinsulin molecule formed in the result of the decomposition the insulin. The level of C-peptide correlates to the level of the insulin produced in the organism that's why it is the most accurate index of the diabetes mellitus differential diagnostic of the fist type of the adults.

The aim of the work is to study the changes of c-peptide indices of the insulin and the clinical peculiarities of the primary discovered diabetes mellitus.

Materials and methods: the content of C-peptide and insulin were studied by the method of immunoferments analysis in 62 patients with the primary diagnosed diabetes mellitus. The indicises of the glucohaemoglobine were determined and glycaemia in an empty stomach and glycaemia after the meal was determined too.

The results of the investigation: the average index of the mass body in the patients of 1st type diabetes mellitus was 21,6 +-2,3; and in the patients of 2nd type of diabetes mellitus it was 34,8+- 3,7. In the result of the research conducted in the patients with 1 type with diabetes mellitus the reliable reduction of the C-peptide indices up to l 0.2+-0.01 ng/ml and of the insulin up to1.7+-0.03 mME/ml was registered that may testifies to the development of the absolute insulin insufficiency. In the patients with the 2nd type diabetes mellitus C-peptide indices and the insulin indices had a tendency to increase up to 3.7+-0.6 ng/ml and 33.6+-1.4mME/ml in comparison with the normal ones.. In four month's after the hypoglycaemic therapy the average indices in the patients with the 1st type diabetes mellitus patients reliably decreased up to5.7+-0.6%. And the average indices of the glucohaemoglobine AIC in the patients with type 2nd type of diabetes mellitus it reliably decreased up to 5.9+-0.8%. It is interesting to note that on examination of the 43 patients with the primary diagnosed of the 2nd type diabetes mellitus diabetic neuropathy was reveled among in 8 patients (19%), the diabetic non proliferative retinopathy was determined on examination of the eye fundus in 9% of the patients and pre proliferative one in 5% of the patients. In 3 (7%) of the patient with DM of the 2nd type on examination of the eye fundus proliferative stage of retinopathy were reveled., in 9 patients the syndrome of diabetic foot was found. Diabetic cataract was diagnosed in 14% of the patient. 21% of the patients had the ischemic heart disease in the case history and

37% of the patients had hypertension. While analyzing of case history data it was determined that 33% of the patient with primary diagnosed DM of the 2nd type had the clinical symptoms before 2-8 years of diagnosed made. The clinical symptoms of the diabetes had been determined 2 – 8 years before the diagnosis was made.

Conclusion: the diagnosis of vessel complication in the primary determined diabetes mellitus is the consequence of not timely made diagnoses and the lack of the treatment. The level of C-peptide enables to determine correctly the diabetes mellitus type, to undergo correct hypoglycaemic therapy, that is the safe defense from the vessel complications development and progressing in the cases of primary diagnosed diabetes mellitus.

20. APPLICATION OF PHYTOPREPARATIONS FOR THE CORRECTION OF THE PROCESSES OF LIPID PEROXIDATION OF BIOMEMBRANES INDUCED BY ULTRAVIOLET IRRADIATION

Nurieva Y.- the 3rd year student
Scientific leaders: CMSc Simonova N. V., Rudenko A.I.

The results of the researches conducted during recent years have showed that ultraviolet irradiation promote activation of lipid peroxidation of cell membranes what has rather far-reaching implications for a warm-blooded organism. Unsaturated fatty acids under the influence of ultraviolet rays are easily to oxidized into peroxide compounds, and the lack of natural antioxidants because of the conditions where air, water and food are polluted can cause oxidative stress that is a pathogenetic factor for progression of many diseases. The consequences of damage of membrane components caused by ultraviolet irradiation are quite significant, and at the present stage this calls the necessity of more detailed investigation of possible ways that can help to correct the processes of lipid peroxidation in the ultraviolet-induced biomembranes of warm-blooded organism.

Research objective: to investigate the influence of leaves infusions of nettle, birch, plantain on resistance of animals to physical load and the intensity of the processes of lipid peroxidation in the ultraviolet-induced biomembranes.

Materials and methods: the experiment was conducted during 28 days in 50 white male-rats weighing 200-250 grams. Ultraviolet irradiation was carried out daily in the ultraviolet camera. The animals were divided into 5 groups: the 1st group was an intact one where the animals were kept in the standard conditions of vivarium; the 2nd group was a con-

trol one where the animals were exposed to ultraviolet rays; the 3rd, 4th, 5th groups were experimental ones where the animals before the irradiation were orally administered with an infusion of nettle leaves (5 ml/kg), an infusion of birch leaves (5 ml/kg), an infusion of plantain leaves (5 ml/kg). The resistance of the rats to physical stress was determined by the time they could swim in water on the 7th, 14th, 21st, 28th day from the beginning of the experiment. The animals were decapitated on the 29th day. The intensity of the processes of lipid peroxidation in the blood of the animals was determined by investigation of lipid hidroperoxides, diene conjugates using the method worked out by I. D. Stalnaya, the concentration of malondialdehyde was determined by the colour reaction with thiobarbituric acid. The results were statistically processed using the Wilcoxon-Mann-Whitney criterion.

The results of the research have showed that daily ultraviolet irradiation during 3 minutes cause the degradation of resistance of the rats to physical stress and the increase of the content of lipid hidroperoxides by 39.4%, diene conjugates - by 26.4%, malondialdehyde - by 23.7% in the experimental animals' blood. Administation of the infusions of leaves of birch, plantain and nettle promote gradual, "gentle" increase of the duration of swimming of the experimental animals in dynamics from the 7 to 28th day of the experiment in comparison with the animals of the control group. The investigation of the influence of the studied phutopreparations on the content of the products of peroxidation indicates that administering of the infusions of leaves of birch, nettle, and plantain contributes proved decrease of the level of lipid hidroperoxides, diene conjugates in blood plasma of the rats and has practically no influence on the secondary product of peroxidation - malondialdehyde. The most apparent tendency of stabilization of processes of lipid peroxidation was registered in the group of the animals that were given the infusion of nettle leaves.

Thus, the results of the experiment proved the possibility of correction of the process of lipid peroxidation in the ultraviolet-induced biomembranes with the help of administering the infusions of leaves of birch, plantain and nettle.

21. EFFICIENCY OF ANTIBACTERIAL THERAPY IN DYS-

PEPTIC PATIENS AFTER CHOLECYSTECTOMY.

Myasnikova R.V., Kozka A.A. – the 4-th year students.
Scientific leaders – CMSc. Soluyanova I.P., Yegorova V.D.

Although dyspeptic symptoms arise in patients after cholecystectomy their mechanisms are not well known. One of mechanisms of the development of sphincter of Oddi dysfunction and dyspeptic symptoms in patients after cholecystectomy is duodenal hypertension associated with small intestinal bacterial overgrowth (SIBO).

To assess the efficiency of antibacterial therapy for the treatment of patients after cholecystectomy with sphincter of Oddi dysfunction and dyspeptic symptoms, 104 patients after cholecystectomy were included into the clinical research and randomized into 2 groups. The group I included 36 patients administered only spasmolytics for 1 month and antibacterial therapy (ciprofloxacin, metronidazole). All patients were studied for endoscopic and ultrasonographic evidence sphincter of Oddi dysfunction and dyspeptic symptoms. The sphincter of Oddi dysfunction was diagnosed according to Rome criteria II. Fasting duodenal juice, homogenates of biopsies were collected and cultured and hydrogen breath tests were perfomed for the evidence of SIBO.

After antibacterial therapy SIBO, dyspeptic symptoms and sphincter of Oddi dysfunction were revealed in 61,1%, 30,8%, 44,1% of patients of the 1st group, respectively and in 70,6%, 17,6%, 27,9% of patients of the 2nd group, respectively.

Antibacterial therapy significantly decreased the frequency of dyspeptic symptoms and evidence of sphincter of Oddi dysfunction in patients after cholecystectomy.

22. SMALL INTESTINAL BACTERIAL OVERGROWTH IN CIRRHOSIS WITH HYPERTENSIVE DUODENOPATHY.

Myasnikova R.V., Kozka A.A. – the 4-th year students.
Scientific leaders – CMSc. Soluyanova I.P., Yegorova V.D.

The increase of portal blood flow with relative ischeamia of the duodenal and small intestinal mucosa included by thick-walled capillary dilatation arteriovenous shunting and reduced levels of intestinal immunoglobulins in portal hypertensive enteropathy contribute to bacterial overgrowth enhanced bacterial translocation and increased levels of intestinal absorption of endotoxin.

To determine the association of small intestinal bacterial overgrowth (SIBO) with portal hypertensive duodenopathy in patients with

cirrhosis, 60 consecutive cirrhotic patients with portal hypertension (Child – Pugh A-24, B-25, C-11) were studied for endoscopic and morphologic evidence of congestive duodenopathy. SIBO was assessed using the hydrogen breath test and defined as the increase of hydrogen in 20 patients.

Congestive duodenopathy were bound by histological examination in 32 patients, by en-doscopy in 28. The amount of pts with and congestive duodenopathy being in Child – Pugh group A - 21,8%, 60,7%; B - 50%, 32,1%; C - 28,1%, 7,1%, respectively. SIBO was present in 27 from 32 patients and in 16 from 28 with and congestive duodenopathy, respectively. There was not significant relation of SIBO Child - Pugh group in patients with congestive duodeno-pathy.

Small intestinal bacterial overgrowth is quite frequent in patients with cirrhosis and sig-nificantly associated with congestive duodenopathy and not significantly with the Child - Pugh group.

23. THE SEED THERAPY

Shchastlivets Zh., Yakovenko M. – the 5th year students
Scientific leaders – CMSc Molchanova Ye.E., Medvedeva Y.S., Rudenko A.I.

In the human body there is an infinite number of correspondence systems that carry information about its functions and structure. Their totality forms the energy Homo-system of correspondences ensuring the organism regulation and its integrity.

For therapeutic purposes the correspondence systems can be stimulated with the help of needles, massagers and other man-made instruments. But of special interest is the use for these purpose of various parts of plants: needles, leaves, petals, cuttings, and especially seeds (fruits).

The correspondence systems contain information about the human body. In seeds (fruits) the information about a future plant is concentrated.

The use of seeds and plants as mere stimulators of correspondence points is very effective. We can apply the sign theory and consider the similarity of seeds by their form. For example, the stem of the cereals has joints and resembles the backbone.

The form of seeds can be considered from different position: the sphere is Homo, so round seeds can be used to treat Homo diseases. Hetero diseases require the application of ribbed seeds or those having rib-like marks. In this sense, the ideal instrument is buckwheat. The seeds that take up an intermediate position – oblong and oval ones – are the best to be applied for a harmonizing effect.

Equipped with knowledge of seeds viability, we can categorize them as Homo or Hetero. The seeds that preserve viability for a long time can be categorized as Homo, short-lived as Hetero.

Plants growing in our region are Homo for us, exotic plants are Hetero, those growing everywhere have a neutralizing effect. Wild plants are Hetero, cultivated by man – Homo. Since the seeds contain information about the entire plant, one should use knowledge about its medicinal properties, for example, the water melon has a diuretic effect, so its seeds when applied to the kidneys correspondence areas should intensify diuresis.

When using seeds from the 8 Ki standpoint one can take into consideration the taste, colour, smell of plants' flowers, of their fruits and seeds. Treatment should be carried out by applying seeds to the organ's correspondence area, matching the direction of the seed's growth with the direction of physiological processes, if the aim is to stimulate the organ's work, or doing the opposite – to sedate it. For this purpose, one can apply a chain of seeds along the organ's correspondence area.

The application of seeds should be done very precisely, to the most painful points. Smaller seeds are used in small systems, big ones – in the big systems. Seeds are not to be used twice.

One must not use plants that grow in close vicinity to automobile roads and in towns because of the high concentration of harmful substances (heavy metal salts, etc.).

Seeds should be gathered when the moon is waxing, if we want to use their Hetero-qualities, and when the moon is waning, if we need their Homo-qualities.

The seed therapy as an effective and safe treatment method can be recommended for the use not only by medical personnel but also by lay persons for the treatment of simple diseases.

24. DIAGNOSTICS OF EMPHYSEMA AND PULMONARY HYPERTENSION IN PATIENTS WITH PNEUMOCONIOSIS

Bardov V. – the 6th year student
Scientific leaders – Prof. Savinova T.A., Yegorova V.D.

Actuality. Diagnostics and differential diagnostics of the dust pulmonary pathology are one of the most complex problems of pulmonology. Since emphysema and pulmonary hypertension are frequent complications in the professional pulmonary pathology, they play a great part in its diagnostics.

The aim of the study is to reveal the peculiarities of emphysema and

pulmonary hypertension in pneumoconiosis under the influence of mixed dust in patients of the open coal output and work out methods of diagnostics and prophylaxis of this pathology.

Tasks:

To reveal roentgenologic peculiarities of emphysema and pulmonary hypertension in pneumoconiosis.

To determine computed tomographic signs of pulmonary emphysema.

To determine time parameters of the development of pulmonary hypertension in pneumoconiosis.

Material and methods. 32 patients with pneumoconiosis were examined at the specialized pulmonological department of the Amur regional clinical hospital using general clinical roentgenologic methods of echography, electrocardiography and roentgenodencytometry (apparatus "Densygraph – 2").

Results. All patients were males: the average age made up 59,4 years; the length of dust service was 27,7 years, the duration of the disease was 8,03 years, smokers made up 15 (46,88%).

The most characteristic complaints were:

Breathlessness – 17 (55,13%)

Cough – 20 (62,5%)

Discharge of sputum – 23 (71,88%)

Cyanosis – 8 (25%)

"Barrel chest" – 13 (40,63%)

"Boxnote" percussion – 10 (31,25%)

Auscultation of lungs:

Vesicular weakened breath – 12 (37,5%)

Vesicular breath with hardened shadow – 2 (6,25%)

Hard breath – 5 (15,63%)

Dry rales – 16 (50%)

Moist rales – 2 (6,25%)

Pulmonary hypertension and its direct consequence – pulmonary heart are the frequent complications of the dust pulmonary pathology.

18 patients were carried out echocardiography. The average pressure in the pulmonary artery made up 28,23 mm. Hg, it corresponded to the 2nd degree of PH; in the control group (n=24) this index made up 14,92 mm. Hg. PH of the 1st degree was revealed in 4 patients (22,22%), PH of the 2nd degree – in 11 (61,11%) of patients, PH of the 3rd degree – in 3 (16,67%) of patients. Thus already in the 1st stage of pneumoconiosis the degree of PH reached 2 – 3 degrees.

The earlier test for the diagnostics of disturbances in pulmonary cardial hemodynamics was the determination of the average pressure in the

pulmonary artery.

Table 1 shows the direct sign of the pulmonary heart (hypertrophy of the right sections of the heart) in 6 patients (18,75%); indirect ones (the elevated lood on the right sections of the heart and right branch block of His's bundle) in 15 (46,88%) of patients and in 8 (25%) of patients respectively.

Table 1. Changes of electrocardiographic indices in patients with pneumoconiosis

Indices	The number of patients	%
Hypertrophy of the right heart sections	6	18,75
Elevated load on the right heart sections	15	46,88
Right branch block of His's bundle	8	25

The analysis of the roentgenologic indices established in all cases of pneumoconiosis the 1st stage of mixed (interstitial nodular) from of the disease with the primary localization process in the middle section of lungs with the following spread into the lower and upper sections, this is of great importance for the modern diagnostics of pneumoconiosis. Changes of the category "p" or "s" appropriate to the early reveal of pneumoconiosis prevailed. Emphysema was revealed in all observations; changes in the roots of lungs were revealed in 96,67% of patients and the pathology of pleura was revealed in 38,33% of patients.

Computed tomography was carried out in 25 patients with the possible dust pathology of lungs, wich allowed to make a proper diagnosis of pathology in respiratory organs in 68% of cases and this method is considered to be one of the most objective and informative one allowing to verify early structural changes in the lung tissue, leading to the development of pneumoconiosis and emphysema.

Conclusions:

Roentgenologic examination established signs of emphysema in all cases of pneumoconiosis caused by brown coal dust.

Computed tomography as the identified method of the investigation allowed to verify the diagnosis of pneumoconiosis in 68% of cases.

The revealed changes give the possibilities to estimate emphysema as verifying by clinico-roentgenologic methods; as one of the main steps of pathogenesis of changes in lungs under the dust of brown coal.

The reveal of pulmonary hypertension and changes in the right heart sections is the early test for diagnostics of cardial-pulmonary hemodynamics.

25. THE ESTIMATION OF THE PHYSICAL DEVELOPMENT OF THE STUDENTS (MALE AND FEMALE) OF THE FIRST YEAR OF STUDIES OF THE AMURE STATE MEDICAL ACADEMY ACCORDING TO THE ANTHROPOMETRICAL DATA.

Nevedomskaya N. – the 2^{-nd} year student
Scientific leaders – ass. Zherepa L.G., ass. Abinina K.I.

Catastrophic decrease in quality and population level as a whole, and especially at children and teenagers, is an incontestable fact which causes alarm in experts. The person is the absolute value of a society, his health is a guarantee of harmonious development of it, pledge of political stability, the state of economic progress. What is health? According to the definition of the World Organization of Public, health services health is a condition of full physical, spiritual and social well-being, but not just the absence of illnesses and physical defects. The state of health of any category of people and the nations is defined by following factors:

1 disease
2 death rate
3 physical developments

As we see, one of the health indicators is physical development. Physical development is a process of quantitative and qualitative change of all indicators of a human body in the course of ability to live. Investigating the anthropometrical indicators (growth, weight, a breast circle) it is possible to estimate physical development visually and simply. The harmonious development is estimated according to the index of Ketle (Index Ketle = weight(kg) / growth in a square (m)).

Constitution type is estimated according to the index of Pine (Index of Pine = growth - (weight + thorax circle)).

Having obtained the anthropometrical data, we could judge on accordance of the investigated parameters to age specifications, about a harmony development, to determine the constitution.

The revealed deviations of the parameters of physical development can be risk factors or signs of some diseases. Therefore the ability to estimate the received results of measurements correctly can promote a healthy way of life.

The work purpose is to estimate physical development of first-year students of the Amure State Medical Academy concerning average

norm of development денной age group.

The problems are to conduct anthropometrical researches of the first-year students of the Amure State Medical Academy, to find out the level of physical development of the students on the basis of the anthropometrical data.

The methods are gathering of the anthropometrical data:

1 measurement of growth with the help of a height grapy,

2 measurement of weight of a body by means of lever medical scales,

3 measurement of thorax circle by means of a centimeter tape.

Work technique is studying of the literature on the given theme, carrying out of anthropometrical measurements of students of the Amure State Medical Academy, estimation of results of researches.

Carrying out of anthropometrical measurements (measurement of the full height, measurement of weight of a body, measurement of a circle of a thorax) Conclusions:

According to the anthropometrical data and physical development of girls and young men of the first course of the Amure State Medical Academy it has been revealed:

1 data of growth, weight and a thorax circle corresponding to the development of the average level.

2 in comparison with 2004-2005we can see the reduction of height (male and female).

3 in 2004-2005 was prevalence of weight above average and high levels of development among girls, and among young men – below an average and above an average.

4 the research of the girls showed the tendency showed the tendency of increasing the asthenic straight, as for young men, the hypersthenic type of constitution.

5 the harmony development (male and female) corresponds to norm in most cases.

26. CIRRHOSIS OF THE LIVER.

Saveleva T., Titova V. – the 3rd year students.
Scientific leaders: CMSc Menshchikova N. V., ass. Posokhova A. A.

Cirrhosis of the liver is a chronic polyetiologic progressive disease with the marked signs of functional insufficiency of the liver and portal hypertension. It is considered as an irreversible diffusive process which is characterized by fibrosis, change of the normal architectonics and vascular system of the liver with the nodous transformation and intrahepatic vascu-

lar anastomoses.
The nodes of the cirrhotic tissue do not have normal lobous structure and are surrounded by the fibrous tissue.
Classification of cirrhosis.
There are 3 types of cirrhosis: micro nodal, macro nodal and mixed.
1. In micro nodal cirrhosis wide regular septa, small nodes of regeneration, are almost of the same size about 1-3 mm. in diameter. The ability of the lever to regeneration can be reduced that is observed in alcoholism, malnutrition, anemia or in old people.
2. In macro nodal cirrhosis septa and nodes are of different sizes, about 3mm. in diameter, the presence of normal lobes inside the large lobes.
Regeneration of the liver in micro nodal cirrhosis, leads to its transformation into macro nodal or mixed one. There are two morphogenetic types of cirrhosis:
A) Postnecrotic cirrhosis develops in the result of massive necrosis of the hepatic parenchyma. The liver is thick with large nodes separated with wide and deep sulci, it is reduced in size.
B) Portal cirrhosis. The reasons: chronic alcoholism, metabolic-alimentary impairments.
The true portal cirrhosis is the primary biliary one.
Three stages of the primary biliary cirrhosis are distinguished:
- ductal (portal) cirrhosis,
- periportal cirrhosis,
- septal cirrhosis.
The causes of the second biliary cirrhosis are obstruction of biliary ducts by calculus, postoperative cicatrix, benign tumors.
3. Mixed cirrhosis has the signs of postnecrotic and portal cirrhosis.

27 .THE ROLE OF PSYCHOEMOTIONAL FACTORS IN COMING OF SUDDEN DEATH FROM ISCHEMIC HEART DISEASE.

Kostin I.- the 2-nd year student
Scientific learders-ass.Professor Gigolyan M.O., Subacheva N.A.

The growing requirements of the public health's subjects force us to proceed to the problem of sudden death from cardiovascular diseases (CVD) as to the integral showing of population's health which can't be considered without consideration of all variety of factors determining it. It induced us to be engaged in deep study of catamnestic data with the purpose of discovering the factors of psychoemotional character as they promote the coming of sudden death from ischemic heart disease (IHD). Long

before Russian and foreign authors (A. Hofman, 1894; V.I. Alishevich, V.G. Naumenko, V.I. Prozorovsky 1969; B.S. Baged 1971 and others) showed on the negative role of psychological traumas in genesis of sudden death from CVD pathology.

We formed questionnaires of catamnestic data of persons died suddenly from IHD. In all, 75 questionnaires were studied where there were facts of psychoemotional loading. The analysis of questionnaires revealed that 63% were men, 37%-women, 48% were employees, the rest part consisted of persons of brainwork, pensioners and unemployed. In most cases the neuropsychic disorders as a rule, were caused by conflicting situation in everyday life (78%) and at work (22%). The emotional factor of unskilled working persons was preceded by physical loading of different intensity during their work (65,3%) and the use of alcohol. During forensic-chemical blood examination, the spirit of vine's concentration was vibrated from 0,5% to 2,5%. As for the brainworking persons, they have 12% of psychoemotional loading which preceded the death in all cases at work and 88%-at home. The main nozological forms which caused death were IHD (86%), the strong infarct (14%).

The development of obvious symptoms of strong disease came within 1-1,5 hour (83,5%) after conflicting situation mainly of living character.

According to our data suddenly died persons above 75% of both sexes were town people, which were born in town and never changed their place of residence.

The following conclusion draws from the research data that it's necessary to study more deeper the role of ecological factors, but the role of psychoemotional factors deservers undoubtedly more intent attention from the side of forensic-medical experts.

28. CORNEAL HISTOLOGICAL FEATURES AND CORNEAL DISEASES

Dukhovny E. A., Zhdanova R. A., Oliferov D. A. – the 3-rd year students
Scientific leaders – CMSc. Semenov D. A., Yegorova V. D.

The cornea is the principal refracting component of the eye. Its transparency and avascularity provide optimal light transmittance. The anterior surface of the cornea is covered by the tear film, and the posterior surface borders the aqueous-filled anterior chamber. At its periphery the cornea is continuous with the conjunctiva and the sclera. From anterior to posterior, the five layers that compose the cornea are epithelium, Bowman’s layer, stroma, Descemet’s membrane, and endothelium.

Damage to either the epithelium or the endothelium can cause edema of the cornea, resulting in impaired visual acuity. Generally, with minor epithelial disruption, the edema is restricted to epithelium. With more extensive damage, however, the localized area of edema spreads into the stroma. Endothelial damage is more likely to cause generalized stromal edema. In an acute episode of high pressure glaucoma, the intraocular pressure can overcome the transport activity of the endothelium and force fluid from the aqueous humor into the stroma. An increase in fluid retention thickens the stroma; no change in the anterior curvature occurs, but changes do occur posteriorly. The more closely packed lamellae in the anterior cornea may make the anterior stroma more resistant to edema than the posterior stroma, with the larger spaces between lamellae in the posterior stroma allowing more fluid collection. The posterior stroma and Descemet's membrane buckle, producing vertical lines called striae, which may be visible on biomicroscopy.

29. FUNDAMENTALS OF ERYTHEMA MIGRANS CHRONICUM

Dukhovny E. A., Zhdanova R. A. – 3-rd year students
Scientific leaders: Dukhovnaya N. I., dermatologist of ARCCH,
Yegorova V. D.

Erythema migrans chronicum is one of the more common examples of gyrate erythema that derives its name from the distinctive manner of its clinical presentation. Coined by Afzelius as erythema migrans in 1909, it was later designated by Lipschutz as erythema migrans chronicum. Both investigators rightly surmised the relationship between the expanding erythematous rash and an antecedent tick bite. The association between tick bite and the constellation of neurologic and rheumatologic symptoms, however, would not come until 1977, with a landmark epidemiologic study conducted at the time around the communities neighboring Lyme, Connecticut. Shortly thereafter, the disease vector (Ixodes tick) and the etiologic agent (Borrelia burgdorferi) of Lyme disease, were determined. ECM and Lyme disease afflicts persons of all ages and ethnic backgrounds, and with a nearly equal gender distribution.

The common denominator for acquiring the disease is outdoor exposure or contact with the disease-carrying tick species Ixodes. Although most infections follow feeding with the hard tick Ixodes, infection following the bite of other tick genera and non-tick vectors has been reported. Human infection constitutes an exceptional event as the principal hosts of the infection are rodents, particularly the white-footed mouse,

deer, and avian populations. The tick acquires infection with the spirochetal bacterial organism Borrelia burgdorferi following blood meal on an infected host and usually retains infectivity for life. Other cutaneous manifestations of Lyme borreliosis are Borrelial lymphocytoma and acrodermatitis chronica atrophicans.

30. OVERVIEW OF SURGICAL TREATMENT OF PITUITARY TUMORS

Dukhovny E. A. – 3-rd year student
Scientific leaders: Prof. Makarov I. Yu., Yegorova V. D.

Tumors of the sella turcica are typically pituitary adenomas and are among the most common intracranial neoplasms. Pituitary tumors are anatomically distinct from tumors of the brain by virtue of their location in the sella turcica beneath the brain. In addition, their clinical behaviors are very different. Although, pituitary tumors are much less likely than brain tumors to be malignant, they are located in a sensitive area adjacent to a number of important structures. Pituitary adenomas may cause syndromes of endocrine hypersecretion through tumoral secretion of hormone, cause hypopituitarism by compressing the anterior lobe of the pituitary gland or remain small and cause neither hormonal disturbances.

Transsphenoidal surgery allows entry into the sella turcica in the safest possible way in any patient with a small pituitary tumor and no or moderate extrasellar extension. In this approach, the neurosurgeon does not enter the intracranial compartment and uses a midline trajectory that avoids cranial nerves and carotid arteries to either side of the gland. The incision in such surgery can be placed along the mucosa on the inner surface of the upper lip or along the mucoperichondrinum overlying the nasal septum within the nasal cavity. These routes are referred to as the sublabial and endonasal approaches, respectively. In the former, numbness of the upper front teeth persists for 6 to 8 week after surgery. In the latter, nasal ache may occur but is transient. Both approaches lead to the same corridor of access to the sella turcica, and ideally a neurosurgeon should be adept at both.

In general, patients requiring surgery for a pituitary tumor are treated most safely and effectively with a transsphenoidal approach. Craniotomy is reserved for patients who have tumors with suprasellar or lateral extensions that are inaccessible via the transsphenoidal approach.

31. THYROID CANCER: MORPHOLOGIC, CLINICAL

ASPECTS AND SURGICAL TREATMENT

Dukhovny E. A., Zhdanova R. A. – 3-rd year students
Scientific leaders: Prof. Makarov I. Yu., Yegorova V. D.

Thyroid cancer consists of a diverse group of tumors with different clinical features and prognoses. Thyroid cancer can occur at any age, but is rare in patients under the age of 25. Radiation exposure is the best-documented risk factor. Most thyroid cancers are carcinomas. Thyroid lymphomas and sarcomas are rarer. The overall prognosis is related to histological type, well-differentiated thyroid cancer (follicular and papillary) has the best prognosis. In contrast, anaplastic carcinoma progresses rapidly and has a very bad prognosis.

Microscopically, the majority of the thyroid gland is made up of follicles filled with colloid. The parafollicular or C-cells originate from the neural crest, produce calcitonin, and are located outside the follicles. They account for 0.1 % of thyroid cells and they lie at the junction of the upper and lower two-thirds of the lobes. Tumors can arise from the follicular epithelium (papillary, follicular and anaplastic), parafollicular or C-cells (medullary), or non-epithelial stromal elements. Papillary cancers are multifocal in up to 75 % of cases (frequency of multifocality depends on method of pathological assessment). The tall cell, columnar, and diffuse sclerosing variants are more aggressive. Cytology cannot distinguish adenomas from malignant tumors and, therefore, follicular cancers cannot be diagnosed with fine needle aspiration biopsy (FNAB). Histologically, capsular or blood vessel invasion is often the only feature of malignancy. Anaplastic carcinoma arises from follicular cells.

32. STEREOTACTIC AND ULTRASOUND-GUIDED VACUUM-ASSISTED BIOPSY IN DIAGNOSTIC OF BREAST CANCER

Dukhovny E. A. – 3-rd year student
Scientific leaders: Prof. Makarov I. Yu., Yegorova V. D.

To minimize the risk of under-sampling, vacuum-assisted biopsy probes have gained an additional significant role in breast imaging. Directional vacuum-assisted biopsy instrument is a special device, using vacuum to pull tissue into the probe and removing the specimen without withdrawing the probe each time. It permits directional, contiguous tissue acquisition. The vacuum-assisted biopsy can be performed under either stereotactic guidance or sonographic guidance. The mode of imaging guidance depends on the type of lesions. For most masses, biopsy is performed

under ultrasound guidance. For most microcalcification and asymmetrical density, biopsy is usually done under stereotactic guidance.

Stereotactic vacuum-assisted biopsy. In stereotactic guided biopsy, the patient is instructed to lie on the probe table device. As standard stereotactic localization, a scout and two stereotactic scout views are obtained. The lesion is then targeted. It is best to target at the anterior or posterior aspect of the lesion so that the probe will not obscure the lesion. Skin is liberally infused with local anesthetic. A vertical incision of 5 mm is made on the skin. The probe is inserted and advanced manually through the aperture in the 12 o'clock position. For biopsy of calcification cluster, slight change in position of calcification may occur after infusion of anesthetics. This is not a problem in practice as most calcifications still lie within the accessibility of the probe. The probe is then fired to the designated depth.

Ultrasound-guided vacuum-assisted biopsy. Patient lies supine on the ultrasound couch with the skin prepared in the usual fashion. The skin is anesthetized. With a 20-gauge spinal needle, 15 – 20 ml anesthetic with epinephrine is then injected along the proposed course of the vacuum-assisted biopsy probe. The injection is targeted at the inferior aspect of the targeted lesion, as this will help to lift up the lesion for subsequent probe insertion. A 4 mm incision is made with a scalpel. The probe, preferably attached to an articulating arm, is inserted under continuous sonographic guidance. The probe is best positioned posterior to the lesion so as not to obscure the lesion.

33. STOMACH CANCER

Zhdanova R. A., Dukhovny E. A., Detusheva O. P. – 3-rd year students
Scientific leaders: Prof. Makarov I. Yu., Yegorova V. D.

There has been a steady decline in the incidence of gastric cancer in most countries in the world in the past 50 years. However, gastric cancer remains a major health problem. Despite the decline in the cancer that was previously most common, the distal type of cancer, there has been a rapid rise in cancers affecting the gastro-esophageal junction and cardia, particularly among young white people, which reflects changes in etiological factors.

In the past, 50 % of stomach tumors started in the pyloric region, 25 % in the body and 25 % in the cardia; tumors in the lesser curve were three or four times more frequent that those in the greater curve. However, the frequency of proximal tumors is increasing. The two histological variants described in the Lauren classification, intestinal and diffuse adenocar-

cinomas. Environmental factors are thought to be more important in the etiology of the intestinal variant, and this tumor may arise in a multistage process from chronic active gastritis through gastric atrophy, intestinal metaplasia and dysplasia to malignancy. Genetic factors are more associated with the diffuse type. However, H. pylori infection is associated with both histological types.

Gastric cancers usually spread either by direct extension, the lymphatic system, the vascular system or by the transperitoneal route. Thirty percent of patients have liver involvement at presentation, and around 60 % have lymph node involvement. Gastric cancer spreads locally to contiguous structures (as described earlier in the anatomy section) or to the anterior abdominal wall. Once local invasion has occurred, there may be haematogenous or lymphatic spread. In lymphatic spread, the rich submucosal lymphatic plexus helps intramural spread, including proximally into the esophagus, but not usually into the duodenum. The initial draining lymph nodes sit on the greater and lesser curves but other lymph node groups are often involved. The patterns of involvement are difficult to predict because of the rich lymphatic network.

Symptoms of gastric cancer include anorexia, weight loss, epigastric discomfort, early satiety, dysphagia, vomiting and bleeding (haemetemesis or melena, 10 %). Patients may have a poor performance status because of their disease. Examination findings include epigastric mass, larged lymph nodes, weight loss (indicator of a poor prognosis), and signs of metastases.

34. CHRONOBIOLOGICAL APPROACH TO THE RESEARCH OF THE FUNCTION OF EXTERNAL RESPIRATION IN PATIENTS WITH CHRONIC OBSTRUCTIVE LUNG DISEASE.

Bezzubtceva V.V. – the 6th year student
Scientific leaders – CMSc. Kostrova I.V., Yegorova V.D.

Chronic obstructive lung disease (COLD) is a chronic, ecologically mediated inflammatory disease of the respiratory system, it is shown partially by reversible bronchial obstruction and characterised by progressing and growing phenomena of chronic respiratory insufficiency.

The spread of COLD all over the world in all age groups makes up 9.3 per 1000 of the male population and 7.3 per 1000 of the female population. Epidemiological researches confirm that active cigarette smoking is the most important risk factor of the development of COLD. Only 10 % of cases of COLD are connected exclusively with other risk factors: professional harm fulness, genetic factors.

Taking into consideration the wide spread of COLD, direct and indirect medical expenses because of premature death of the population, researches of circadian rhythms of the external respiration promote more profound understanding of the organism mechanism functions during pathology and the determination of the degree of the expressiveness of compensatorys reactions and the estimation of their part in the development of the disease.

Spirometry was used to study bronchial patency. Lung vital capacity (LVC), maximal expiratory flow volume (MEFV), volume of forced expire (FEV1), its relation to MEFV (FEV1 to MEFV), pick volume rate (PVR), the maximals rates of the forced expire at the level of 25, 50 and 75% MEFV (MVR25-75), expressed in percentage of due sizes were defined. The research was spent at 6.00, 12.00, 18.00 and 24.00 h. within two days.

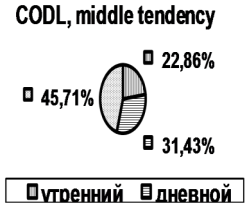
The obtained data were elaborated by Kosinor-analysis method and chronobiological criteria were calculated for each patient: mesor (M) - size, corresponding to the average value of the useful signal, amplitude (A) – of the greatest deviation from mesors, the time of the greatest lifting - akrophase and the time of the greatest atelectasis - batiphase. 6 o'clock in the morning was chosen as a point of counting.

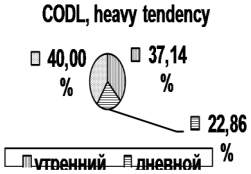
The study of daily dynamics of external respiratory functions in patients with COLD of the benign severity showed that in 7 cases the disease proceeds against the background of the day type of the rhythm of the respiratory system that corresponds to the biorhythms of the majority of healthy people. But more often the disease proceeds against the background of the desynhronos of the respiratory system. So in 10 cases morning and evening types of daily rhythms were registered.

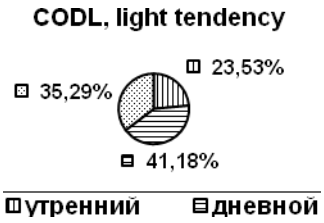
In the process of the increasing of the disease severity the depth of the respiratory system desynhronos was marked. In patients with the mild severity of the disease the evening type of the biorhythm prevailed (in 45,71 % of cases). As to the severe form of the disease the day type made up only 22,86 %, at the same time the number of patients with morning type of biorhythms of the respiratory system is increasing (from 22,86 % during the mild form of the disease to 37,14% during the severe form of the disease). In patients with extremely severe form of COLD 29,41 % of the day and the evening type and the maximal number of patients with the morning type of biorhythm of the respiratory system in 7 (41,18 %) of patients were registered.

Thus, results of chronobiological research of indices of the external respiration established distinctly expressed desynhronism of the respiratory system in patients with COLD. Alongside with the day biorhythm

which prevailed among healthy people, and the evening one which also occurs in patients without pathology of the bronchial system we reveald also the morning type of biorhythm which is characterized by the placing of acrophase of the function of the external respiration indices and a.m. time (till 12 oclock) and batiphases at p.m. and evening time.







35. PECULIARITIES OF THE DURATION OF ISCHEMIC

HEART DISEASE IN PATIENTS WITH TIPE II DIABETES MELLITUS.

Yuryev. E -the 3- year student
Scientific leaders- CMSc Sundukova E.A, Yeqorova V.D.

The wide spread of ischemic heart disease and diabetes melitus in the general structure of morbidity and mortality, the common character of many pathogenic links of their formation determine the actuality of the study of peculiarities of the clinical picture in the connection with lesions in cardio-vascular system in nosologic data. The high risk of vascular complications in type II diabetes has given the American Cardiological Association to rank diabetes to cardio-vascular diseases. IHD in patients with diabetes in comparison with patients without this disease develops at the earlier age and is characterized by more severe lesion of coronary arteries with the involvement of the distal channel. Aggressive duration of IHD in patients with type II diabetes allows to pay special attention to the possibilities of preventing the progressing IHD. The fight against risk factors of IHD acquires especial significance.

According to Framingemsky's research traditional risk factors of IHD (arterial hypertension, smoking, hypodynamia, obesity, dislipidemia, elderly age, male sex, hereditary burden) are revealed 1,4-4,2 times more often, in patients with type II diabetes than in the population without this disease. Besides this the pathogenic influence is rendered by specific factors as well (hyperglycemia, hyperinsulinemia, insulinoresistance, diabetic independent neuropathy). The presence of DM is attended by the existence not only one but sex by several risk factors of IHD.

The aim of our research was to study the spread of risk factors, peculiarities of the duration of the disease, the role of metabolic disturbances in the development of IHD in patients with type 2 diabetes mellitus, 500 case histories of diabetic patients treated in the cardiological centre of the town clinical hospital №1 of Blagoveshchensk were analysed. In 68 patients IHD was accompanied_by type II DM, it made up 13,6% (according to the data of literature-from 4 to 18% among examined patients women prevailed-52 persons (76,5%), men made up 16(23,5%)). The average age of patients made up 65,2 ± 2,3 years. Table I shows the distribution of patients according to the age and sex. It is necessary to note that there were men of the young age, 62,5% of them were younger than 60 years old, and at the same time women prevailed in the elderly group older than 60 years (59,6%).

The duration of the disease (IHD) made up on the average 12,8±0,51 years, and hyperglycemia was registered in patients within

18,3±1,2 years. According to the classification of Canadian association of cardiologists the majority of patients (55,9%) had the 2— functional stage of stable stenocardia of stress.

Among the accompanying pathology arterial hypertension was revealed in 57 patients (83,8%). In anamnesis of 41,2% cases myocardial infarction was revealed, in 26,5% of cases IHD was complicated by the development of the heart rhythm disturbances (ventricular arrhythmia, fibrillation of auricles).

Thus the given research allowed to reveal the significant spread of risk factors of IHD in patients with type II diabetes.

36. THE ROLE OF OBESE CELLS IN ALLERGIC REACTIONS

Legchikova Ya., Sokolova G., the 2nd year students
Scientific leaders – Prof. Krasavina N. P., Yegorova V.D.

Obese cells play a special role in the development of allergic reactions. Each cell has approximately 300000 of special receptors with which antibodies of immunoglobulin E are connected. When the connection of the molecule of allergen with antibodies of immunoglobulin E occurs on the surface of the obese cell, the cellular membrane begins to change. Thus biologically active substances are called mediators. This process can be described as degranulation. Obese cells contain formations of granules with biologically active substances, each congestion has its own membrane. In cytoplasmic granules there are histamine, neutral protease, heparin, prostaglandins, leukotrienes, cytokines and others. Symptoms occurring in allergy under the substances' effects, formed by obese cells are explained by the following factors: small blood vessels extend and their permability increases. The spasm of the smooth musculature leads to the narrowing of the respiratory airways, to the increase of the secretion of cells products formation and glands. In the respiratory organs histamine results in the narrowing of bronchi lumen, and leukotrienes and prostaglandins cause the narrowing of peripheral respiratory airways. Taking into account that obese cells are widely spread in mucous membrane of the nose, in lower respiratory airways, it is important in the occurrence of such diseases as bronchial asthma.

37. PRETUMORAL DISHORMONAL DISEASE OF THE MAM-

MARY GLAND.

Yershueva N., Dyomina K. – 3rd year students
Scientific leaders: ass. prof., CMSc N.V.Men'shikova,
Ye. A. Volosenkova.

Pathology of the mammary gland is one of widely spread oncological diseases. Dyshormonal hyperplasia is one of the risk factors of the mammary gland cancer. Mastopathia cystica is a pathological process which is characterized by the changing of the mammary gland tissue whis correlation disorder between connective and epithelial components. Women often suffer from this disease at the age of 30-50 years. Besides operation is necessary in 80% of cases. This condition is caused by the increased reaction of the mammary glands to the hormonal changing during ovulation resulting in the development of indurations and cysts. However mastopathy may transform into malignant tumors. According to the stage of the pathological process mastopathy is subdivided into diffuse vand nodal forms. The diffuse form of the disease is characterized by the formation of small knots as a result of the connective tissue growing. It is the first stage of the disease. Then the pathological process results in the nodal form. This form is characterized by the formation of larger knots, tissue granulation and pain which disappear during menstruation. In spite of the fact that mastopathy is the benign disease of the mammary gland it is necessary to observe and treat this disease because some forms characterized by the cells division may result in mammary gland cancer. Last years this pathology spreads very rapidly all over the world. Patients with this pathology must go through regular check-ups and treatment in order to avoid surgical intervention.

38. CARDIAC RHYTHM DISORDERS IN PATIENTS WITH CHRONIC OBSTRUCTIVE LUNG DISEASE.

Dyomina K. A. –the -3st year student.
Scientific leaders: ass. prof., CMSc N.V. Loskutova,
Ye. A. Volosenkova

Decompensated chronic pulmonary heart is the main cause of death of the patients suffering from chronic obstructive lung disease.

During investigations it was found that the frequency of arrhythmia which may cause death in case of severe form of pulmonary insufficiency can be compared with the frequency of cardiac rhythm disorders in case of acute myocardial infarction.

The aim of this work is to reveal the spread and peculiarities of the cardiac rhythm disorders in patients with chronic obstructive lung dis-

ease. 186 case histories were studied.

Patients were divided into 3 main groups according to the level of systolic pressure in the pulmonary artery and right ventricular failure.

The first group included 84 patients (54.1 $\pm$ 10.5 years old)

The second group – 54 patients (59.2 $\pm$ 9.7 years old).

The third group – 48 patients (62.1 $\pm$ 8.3 years old).

The patients' diagnoses were confirmed by the data of complex clinical instrumental and laboratory examination.

Results:

The cardiac rhythm disorders were defined in many cases in patients suffering from chronic obstructive lung disease.

The main characteristic feature of the isolated chronic obstructive lung disease is the development of the supraventricular rhythm disorder.

Ventricular rhythm disorders of the heart occur frequently in case of chronic obstructive lung disease and ischemic heart disease combinations.

In the development of pulmonary and cardiac insufficiency the frequency of cardiac rhythm disorders, conduction and their combination increases.

39 ARGININ - PARTICIPATION IN METABOLISM AND CONTROL OF VITAL FUNCTIONS

Zotova G.- the 1st year student.
Scientific leaders – ass. prof. Yegorshina E.V., Posokhova A.A.

Arginin is a protein forming substituted for adults and indispensable for children. It performs different functions in the organism. One of the main functions is participation in the synthesis of creatine which is used like creatine phosphate as the source of energy for the work of a person's muscles. Besides, arginin serves as the nitric oxide in the organism and predecessor of not albuminous amino acid – ornitin which participates in the synthesis of urea and proteinogene polyamines – spermine, spermidine, putrescine.

Arginin is the amino acid which exerts a positive influence on the cardiovascular system as it favours the maintenance of cholesterol normal level in blood. The high level of cholesterol and deposits of salts on the walls of arteries may lead to abnormalities of cardiovascular system, development of atherosclerosis and other diseases of cardiovascular system. It also favours the maintenance of the normal level of arterial pressure.

Arginin is the source of nitric oxide in the organism. Nitric oxide which is chemically lettered NO also called "endothelian relaxing factor"

plays a key role in guaranteeing of blood vessels relaxation and controlling high blood pressure. Arginin acts as the predecessor of nitric oxide which is released from the cells of internal walls of vessels and favours their dilatation preventing the formation and development of atherosclerotic plaque.

Arginin itself (and not nitric oxide which is formed from it) decreases the level of cholesterolmore efficiently than any other amino acid. The daily doses from 6 to 17 grams decrease the level of cholesterol-LDL without decreasing the useful cholesterol-HDL without causing side effects. Besides, arginin favours healthy coronary microcirculation in people with the high level of cholesterol in blood preventing the formation of blood clots which may cause infarctions and strokes. Arginin favours blood flow to extremities.

Being relatively indispensable amino acid for adults and completely necessary for children arginin must enter the organism only with food products - curds, sea products, chicken meat, walnuts, liver, chocolate. No wonder that its deficiency may occur. Such diseases as stable hypertension, weakening of memory, nervous and psychic disorders, weakening of immunity, diabetes mellitus, malignant neoplasms, functional disorders of the sexual system up to impotence, diseases of internal organs, fatty infiltration of liver, growth and puberty impairment, obesity.

Researchers of our country and from abroad offer different ways of arginin use in connection with the variety of processes which arginin takes part in and possibility of development of diseases in its deficiency in the organism. It is recommended as a medical and prophylactic remedy in the diseases of cardiovascular system, in weakening of immunity, for activation of mental activity, loss of the organism's intoxication and in some other cases.

40. CENTRAL. NERVOUS SYSTEM AND ACTION OF DRUGS ON IT

Shevchenko *E.,* Tarasov A. - the 2nd-year students
Scientific leaders: ass. Pavlova A. Ye., Posokhova A.A.

"It is easier to prevent a disease than to treat it"-this golden rule of medicine takes on special significance when we speak of the youth drug addiction. To make a person's behaviour successful it is necessary that his internal states and external conditions correspond to each other. Nervous system ensures the function of uniting of all this on the physiological level. Central nervous system presents accumulations of nervous cells — neurons. The brain is a part of the nervous system. Impulses enter the cortex of the brain, the main psychic functions of a person are realized in it Nervous

system is very complex by structure and functions, it provides regulation of all kinds of activity of the integral organism. But there are many drugs directly increasing or weakening the activity of its different parts.

A nervous impulse is a universal physiological process of nervous cells that is changed under the influence of drugs easily. The synaptic theory is the basis of modern conceptions about the mechanism of action of pharmaceutical substances changing the functions of central and peripheral nervous system. According to this theory synapses are the scene of action of neurotropic substances where transmission of nervous excitation is carried out with the help of chemical transmitters or mediators. One can influence on different links of processes of a nervous cell by pharmacological substances. And this influence is suppressing or exciting. The chemical dependence can be divided into physical and psychological. The physical dependence is caused that the mechanisms of the central nervous system's and the whole organism's work arcchanged during the use of psychoactive substances. The psychological dependence is a complex mechanism connected with the deep personal changes of perception. And if one can bear physical dependence on the first stage himself, it is impossible to stand psychological one. From the point of view of psychopharmacological influence on a person drugs can be divided into three big groups:

Drugs exerting the suppressant action on the central nervous system (opiates, barbiturates, tranquilizers)

Drugs exerting the exciting action on the central nervous system (amphetamines, cocaine, pervitin)

Drugs having hallucinogenic action (small psychodelics, big psychodelics)

The influence of psychoactive substances on the organism of a person, his vital activity and functions are revealed in three different aspects:

Drugs influence on definite systems and structures of the brain specifically causing development of the dependence syndrome

They have a toxic influence on practically all internal organs and systems of the organism. .1 The influence of narcological pathology of parents on posterity.

Forming and development of dependence on psychoactive substances are connected first of all with the structural and functional changes in the number of formations of the central nervous system. In this connection one can consider the dependence on drugs can be considered as the disease of the brain destroying mechanisms responsible for continuation of generation, controlling and making cognitive, emotional and social behav-

iour of a person. Neurophysiological mechanisms of development of dependence on drugs are based in the system of a positive reinforcement which participates in regulation of emotional state, mood, motivated sphere, behaviour of a person on the whole, his adaptation to environment.

The influence of drugs leads to intensive discharge of catecholamine neuromediators from the depot and consequently to considerably stronger activation of the system of reinforcement. Such excitement is quite often accompanied by positively emotional experiences. Free f, catecholamines are subjected to the action of metabolism's ferments and destroyed quickly. The repeated takings of drugs lead to the exhaustion of reserves of mediators that is revealed by insufficiently marked stimulation of the reinforcement system. Thus, one can imagine the forming of dependence on psychoactive substances as a cyclic disturbance of reinforcing system of the brain. Similar impairments increase progressive!) and lead to ceaseless use of drugs and also to decreasing of control for the use. It is suggested that it is connected with the homeostatic disregulation of such systems of the brain as dopanine, opioid, GABA, serotonin and also with changes of neurohormones in metabolism.

Il should be noted that each chemical substance taking of which leads to the appearance of dependence syndrome, causes its special pharmacological effects besides general for such substances action. The whole complex of these private and general for all drugs effects determines specificity of the clinical picture characteristic for this on that form of drug addiction.

Treatment

Pharmacotherapy.

Several forms of pharmacotherapy were developed in opiat dependence.

The use of agonists (levoalphaacetyl. metadol, metadon, buprenorphine)

The use of antagonists (naltrexone, antagonists and agonists of cocaine). Neurosurgical method

The suggested method is based on the use of computer stereotaxic system allowing to get with the high exactness into the given structures of the brain responsible for deviations in psyche, the authors offer t o carry out correction of these structures (turning off or stimulation) with the help of cannula introduced into the definite structures of the brain through the cutter hole. *

Cholotropic therapy. This method of drug addiction treatment is based on the use of specially developed music.

One can conclude that drug addiction is a very dreadful disease

which is very difficult treated,

41. KARL LANDSTEINER- AN OUTSTANDING IMMUNOLOGIC OF THE XX CENTURY

Savchenko D. - the **4-** year student
Scientific leader: **CMSc. L. K. Reshetnikova, E.A. Volosenkova**

At the end of the XX- century immunology only began to become a scientific subject. In 1896 Landsteiner carried out his first experiment, studying the action of antibodies on a bacterial culture. He added blood serum to the bacterial culture and observed agglutination. In 1900 he published the article where he explained the essence of this investigation: agglutination which resulted from the connection of plasma taken from one person and erythrocytes taken from another one is a physiological phenomenon. These researches became the basis of the blood groups discovery more then 100 year ago. All the next years the world medical society with gratitude remembers a person who made this outstanding discovery in medicine of the XX^{L} century - the name of Karl Landsteiner who was a physicist, a pathophysiologist, an immunologist and a chemist.

Karl Landsteiner was born on the 14- of June inl868 in Vena. His father was a newspaper publisher and a journalist. When **Karl** was 6 years old his father died. Karl was brought by his mother. In 1885 Karl finished a grammar school and entered the university in Vena. In 1891 he received the degree of doctor of medicine. At that time he was interested in chemistry which he was studying during 5 years. In 1896 he returned to Vena and worked at the chair of hygiene where he was interested in immunology.

In 1901 Landsteiner described a simple method of the human blood division into 3 groups: A, B, C Today the last group is marked as O. Later the fourth group - AB appeared. For the division of blood into groups erythrocytes, where mixed with serum of anti-A and anti-B. Therefore, according to Landsteiner^{s} formula blood serum contains antibodies which don't agglutinate erythrocytes of this group.

Also Landsteiner described and studied physiological mechanisms of cold agglutination of erythrocytes. He worked out the method of definition of paroxysmal cold haemoglobinuria. Landsteiner supposed that haemoglobinuria is caused by antibodies which after the cold influence interact with erythrocytes, but when blood becomes warm it causes their haemolysis.

In 1927 Landsteiner discovered in the human erythrocytes the following antigenies: M and N. In 1930 he received the Nobel prize in the field of physiology and medicine «for the discovery of the human blood

groups». In 1940 Landsteiner with other scientists described Rh-factor. The connection between this factor and haemolytical jaundice of newborns was found. In 1943 on the 26- of June Landsteiner died of heart disease.

42. PECULIARITIES OF SWINE FLU OF TYPE A (H1N1)

Pachganova E.V. – the 5th year student
Scientific leaders: Prof. Figurnov V.A., Ass.Prof. Gavrilov V.A., Bibik I.A.

Mankind has been familiar with the swine flu and not than once. Accoding to Yuschuk N.D., Martynov Y.V. (2003) in the twentieth century this type of virus was the cause of pandemics (worldwide epidemics) in 1929-1946, then in 1947-1956 and in the period of 1976-1980. So the older generation suffered from the disease and have postinfectious immunity. Typical ways of distribution of influenzal pandemics appeared. They are connected with the international communication. First new variants of influenza of type A viruses appeared in North America, Europe, Asia then it was found out in other regions of the world. The latest regions where the population began to suffer from this type of virus were South America and Africa. The beginning pandemic of the virus of type A (H1N1) also goes the same way of spreading. It is due to the absence of the immunity in the population born after 1980. For this category of population swine influenza virus is new. In October 2009 the mass cases of disease were registed in many countries of the world including Russia and China. In Siberia and the Far East this virus was found out in Irkutsk region, Amur region, Khabarovsk krai. The U.S. president called this disease a threat of national security and immunization of the population against swine influenza has already begun. The first cases of disease were reported in the middle of April 2009 and were confirmed in persons living in California, Texas (the USA) and Mexico. The main clinical symptoms are headache, muscle aches, fever, cough, sore throat, rhinitis and acute form of intoxication. All these symptoms are typical for normal seasonal influenza. In 20.04.09 the Federal Russian Consumer Inspection Service sent a temporary order №01/5582 to control the infection caused by the virus of swine influenza. It has recommendations of prevention and treatment of this disease. It is known that in Russia in the middle of November the vaccination of the population with domestic vaccine against swine flu will be started. It will strengthen the immunity of the population and contribute to the ending of the epidemic. Besides, preparation “temiflu” (oseltamivir) which is a selective inhibitor of neurominidazy of viruses of influenza of type A and B

is widely used for treatment of this disease. In addition it can be used in the prevention of disease. In the chemiprophylaxis and treatment of influenza domestic preparations arbidol, remantadin, leucocytic interferon can be used. All these remedies are etiotropic. In addition to etiotropic preparations pathogenetic agents are used for the treatment of influenza. These are pyrolytic, desensitizing agents. Besides infusion therapy, including intravenous introduction of crystalloid and colloidal solutions is carried out.

43. HISTORY OF SCIENTIFIC ANATOMY IN ANCIENT GREECE.

Sokolova G., Anikina O., Sokolenko L. - the 2nd year students.
Scientific leaders - Pavlova A.Ye, Yegorova V.D.

This period is characterized by achievements of a great number of doctors and Gerofil, Erazistrat made much in anatomy.

In Alexandria autopsy was widely spread. Therefore scientists had possibilities to carry out autopsy for the scientific and medical purpose. Gerofil who taught anatomy in Muzeion dissected publicly more than 600 corpses. Receiving the trustworthy data on the position, sizes and the structure of the human organs Gerofil learned the eye, visual nerve and sclerotic coat of the eye, brain and its connection with the spinal marrow. He descrited the anatomy of the liver, pancreas, genitals, separated the sensitive nerves from the motor ones.

V.N. Ternovsky defined Gerofil from Alexandria in the history of anatomy as the. most important man and as a pioneer of the scientific anatomy. With the help of works of Alexandria school of doctors anatomy was included into the practical medicine as the necessary element of diagnostics and treatment. At the same time works of these scientists were the basis of Galen's medical knowledge. Erasistrat studied the cardio-vascular system after Gerofil. Chyle vessels of the mesentery; sections of the brain were known to him. Erasistrat's investigations were directed to the discovery of organs functions.

Works of doctors of Alexandria reached our ears partially, Claudius Galen reported about them in his books.

44. PHENYLKETONURIA

Sokolova G, Anikina O, Sokolenko L - The 2nd year students

Scientific leaders - Prof. Gordienko E.N, Yegorova V.D.

Phenylketonuria is a severe hereditary disease connected with the metabolic disturbance of aminoacids including phenylalanine. This disease is accovpanied by the accumulation of its toxic products and leads to the lesion of the central nervous system. In 1934 the young Norwegian doctor Ivar Asburn Felling, - biochemist and psychiatrist described hyperphenylaninemia, that has served as the discovery of this disease. In Norway this disease is called Felling's disease, named in an honour of its discoveror. The term «phenylketonuria» was introduced by Penrose and Kvostel in 1937. The type of inheritance autosomal - recessive (Mendelevsky's variant) In the basic of the disease there lies the deficit of the ferment - phenylalanin - 4 hydroxylase,ensuring the transformation of phenylalanine into tyrosine. Phenylketonurea 1 (classical form) is connected with the mutation of a gene of W.O.U.N.D.S. localized in the long shoulder of the 12"' chromosome. Phenylketonuria 2 (lethal form) Dpr gene is localized in a short shoulder of the $4^{\cdot h}$ chromosome.

Phenylketonuria proceeds very hardly, as a rule with spasmes. Phenylketonuria *2* - death during the first years of life. The freguency of the disease makes up: in Australia - 3-5 % of all phenylketonuria in America - about 50%.

On the average — 1 per 100000 of the population.

Phenylketonuria 3 - is connected with insufficiency of cofermens of synthesis of tyroxini from phenylalanin.

Phenylketonuria proceeds with heavy neurological simptoms and ends with the death in the first year of life children. The frequency of disease makes 1 per 30000. Mutation:

missens mutation - 62%, nonsense mutation,splasing mutation.

The clinical picture of phenylketonuriaincludes:its revealing during the first weeks and months of life, the child absence of interest to environmental conditions, backlog in intellectual and physical development (blond children with a light skin and light blue eyes). The smelt of urine and sweat are frequently marked in these children (mouse smelt).

The diagnostics of this disease includes: diagnostics of genes, microbiological method which defines the concentration phenylalanin in the blood. The treatment includes: drugs, the proper diet, massage. Prophylaxis of the diseases: the programs of mass screenings, revealing of geterozygotes of carriers, intrauterine diagnostics.

45. VARIATUVE ANATOMY OF THE MARGIN AND FORM OF ANTERIL WALL OF EPIDURAL AREA.

Bondar' O., Taburyanskaya M.-th 2nd year students
Scientific leaders-c.m.s. Shakalo U.A., Teplishcheva M.M

It's determined that in the area of large occiput foramen and two first cervical verbri there is the upper wall of cervical part of epidural area as the place of connection of the dura mater with spinal channel. We consider that definition'' upper wall of epidural area of epidural area" wider then ''upper margin'' as it reflects anatomy of fixation place of dura matter sac to the wall of spinal channel

The upper wall of epidural area is presented by the structures in the place of atlantooccipital atlantoaxial articulations: 1) periosteum of large occiput foramen margins; 2) first and second cervical vertabri; 3) atlantooccipital and atlantoaxial membranes:; 4) coverage membrane and posterior longitudinal ligament; 5) medulla dura matter. As for the level of epidural area wall there are various data: from the margin of occipital foramen to the second cervical vertebrae or absence of that. We cant' agree with the strict correlation of upper wall with a certain level of localization but suppose its localization as one of the variants. We mark in the structure of cervical part of epidural area topographically anterior and posterior its section. The levels of these sections can coincide or can't. In our research we have presented the number characteristic of the level of upper wall of anterior and posterior sections of epidural area at ontogenesis stages.

Analysis of the data shows that upper wall of epidural area generally is located an the occipital bone, C1 and C2 practically at all age periods and its movable endings such as: occipital bone-C1 is characteristic for children age (posterior parts predominate),C1-C2 are observed in anterior and posterior sections at the prenatal period of development. More frequently the level of ending of upper wall of epidural area correlates withC1 level, while its anterior section predominates over the posterior one. During aging dislocation of the level of the upper part of epidural area to the craniocaudal direction may occur. Posterior part of upper wall of epidural area is presented by super occipital arch in the case of attachment atlantooccipital membrane in several ml. from its foramen margin. The line of membrane attachment is not entire. Due to it super occipital arch has a picture of small protuberance with curvy margins. The arch does not form in the case of fixation of posterior atlantooccipital membrane along the large occipital foramen and upper wall of epidural area has a form of the narrow fissure. It can be located at the lower position- at the level of arch C1 or C2 if connective structures of internal and external walls of cervical epidural area grow together at the level of these seg-

ments. Anterior part of the upper wall due to it lower size a is a narrow fissure without arch form.. The level of its localization is from large occipital foramen to the second vertebrae, but the there may be intracranial position.

Thus, variability of the levels and form of upper wall of anterior and posterior sections of epidural area is conditioned by different fixation of cranial parts of dura matter encephli sac to spinal channel and occipital bone.

46. TREATMENT OF THE SYNDROME OF A DIABETIC FOOT

Pushkareva V., Pereverzev D., Babenko A. - the 4-th year students
Scientic leaders: Prof. V.V.Shimko, CMSe. Yu.Z.Strunina, V.D. Yegorova

Complex therapy with the use of low intensive laser radiation and hyperbaric oxygenation (HO) was applied to 20 patients with diabetes at the stage of decompensetion with the syndrome of a diabetic foot (DFS). Results testify to the efficiency of the complex treatment of patients with diabetes of moderate severity using low intensive laser radiation(LILR) and hyperbaric oxygenation(HO).

Keywords: a syndrome of a diabetic foot, low intensive laser radiation, hyperbaric oxygenation.

Introduction: DFS is a pathologic state of a foot in diabetes occurring due to the lesion of peripherae nerves, soft tissues, bones shown by acute and chronic ulcers, osteoarticular affections and pyo-necrotic processes. Amputation of in patients with DFS are performed by 15 oftener than those in other people. Amputations of but make up 50-70 % of patients with a diabetic foot.

In hospital N3 of Blagoveshchensk we used the complex therapy of patients with diabetes of moderate severity at the stage of decompensation with DFS using traditional therapy, hyperbaric oxygenation and laser radiation.

Methods of research. The research of initial indices of glucose of capillary blood, lipid spectrum of blood plasma, were carried out on the automatic biochemical analyzer «VTS-370» (firm "Biosystem"). Besides we calculate atherogenic factor using the formula: AF(the general cholesterol lipoproteins of high density, lipoproteins of low density before and after the treatment. Patients were treated with the help of apparatus "Mulatto" (firm "Technic" from Moscow), disposable light conductor, altitude chamber "Yenisei-3"(pressure 1 ,3-1,5 atm), the time of exposition made up 50-60 minutes.

32 patients were examined. The average age made up 60,5±4,5 year. 85 % patients showed trophic ulcers. All patients were divided into 3 groups according to the treatment. The control group consisted of 12 patients who received the traditional treatment. Group 1(12 patients) received additional intravenous irradiation. The course of treatment lasted 10 days (1 procedure lasted 30 minutes). In the second group there were 8 patients who besides the traditional treatment received LILR in combination with hyperbaric oxygenation. Procedures with HO very carried out during 10 days.

Results of research. Indices of LPHD before and after the treatment in the control group made up 0,63±0,03 mmol/1, in the first group those were 0,68±0,05 mmol/1, in the second group indices were0,70±0,03 ($p < 0,001$). AF in all groups was exceeded twice norm parametres.

Conclusions: Thus, using low intensive laser radiation in the combination with hyperbaric oxygenation in the complex treatment of DFS improve the nearest results of the treatment and can be effectively used in such pathology.

47. MINIINVASIVE SURGERY IN VARICOSE DISEASE TREATMENT

Porohova E.A.- the 5th year student
Scientific leaders: Professor Shimko V.V., Ass. Parshina A.N.

The varicose disease is wide-spread all over the world. More than 40 per cent women and 20 per cent men have varicose disease signs. Trophic ulcers appear in 20 per cent of patients with varicose disease; more than 25 per cent of patients suffer from varicose veins thrombophlebitis. The modern way of the veins disease treatment provide reasonably using of radical and aesthetic profitable, mini injured methods of treatment. Surgical technology of the varicose operating technique undergoes significant changes. It is caused by not only the more perfect instruments appearance, but also changed varicose operation methods. One of the miniinvasive surgical interventions is intraoperative truncal catheter scleroobliteration. It is a sclerotherapy variety which is performed during operative intervention on the big subdermal vein trunk. The intraoperative catheter scleroobliteration essence is the introduction of the special long catheter with a great number of openings on the giving phlebosclerosant side into the vein empty space(the substance causing destruction of the internal vein shell and stimulating its obliteration) with the following immediate elastic compression. Fibro-vein, which belongs to detergent class, was used as the phlebosclerosant .It is used for the varicose veins and tel-

angiectasiae sclerotherapy. «Fibro-vein» causes the endothelial cells detachment, the subendothelial collagen fibers baring. Angiospasm, platelet factors powerful surge appeared due to the venous wall damage that starts the thrombus formation cascade. The blood entering the vein coagulates and forms the compact sclerothrombus, safely fixed to the vein walls. The vein fibrous degeneration process occurs. Finally, occluded vein reorganizes into the fine fibrous bar. The catheter can be entered both through the incision in the groin and through the additional incision in the region of medial malleolus. During the scleroobliteration the surgeon instills the sclerosant into the vein empty space and at the same time slips the catheter toward himself, released vein parts undergo immediate compression – first by hands and than silicone pillows and a stretchy bandage are applied. The main condition of success therapy is round-the-clock compression within not more than 7 days. The main value of the scleroobliteration is an opportunity of the out-patient treatment, the smallest traumatic injury (surrounding vein tissues and nerves are not damaged, hemorrhages are absent) that defines a good cosmetic effect, quick rehabilitation and earlier recovery of patients.

48. ANOMALIES OF BEARING

Sryvalkin M. – the 2nd year student
Scientific leader – Pavlova A.E., Bibik I.A.

Bearing is a position of the head and the trunk in the space formed by the skeleton and muscles under the influence of gravity when a man stands sits and walks. Bearing elements are the position of the head about the trunk, the position of the pelvis and the position of the feet. Correct bearing is a usual pose of an easy standing man having ability to hold directly the trunk and the head without additional efforts. Defects of bearing and curvature of the spine can appear even in babies. There are many reasons causing the defects in babies. Some of them are caused by health condition and physical development of a baby, others by environment. Among all factors and reasons the most significant role in having correct bearing plays a balanced diet. The lack of vitamins and mineral salts in food badly influences on the condition of the skeleton and muscles of a baby and can lead to the development of incorrect bearing. There are some types of incorrect bearing. These are stoop, kyphosis, lordosis, the straightened bearing, scoliosis. There exit some congenital anomalies: socialization, diastematomyelia, lumbarization.

49. THE ANALYSIS OF LUPUS ERYTHEMATODES MORBIDITY AND SCLERODERMIA IN THE AMUR

REGION FOR THE LAST 3 YEARS (2006-2008)

Shcherbina E., Shikuro Ya. – the 4th year students
Scientific leaders: Ass. Prof. N. Ye. Melnichenko, N. A. Polezhaeva, V. D. Yegorova

Summary: The skin represents one of the major organs afflicted by lupus erythematosus (LE) . Localized scleroderma (LS) or morphea encompasses a group of disorders characterized by delimited and localized inflammatory sclerosis (thickening) and fibrosis of the skin, subcutaneous tissue, fascia and/or adjacent muscle.

Matherial and methords:

Retrospective analysis of lupus erythematodes morbidity and scleroderma in the Amur Region for the last 3 years (2006-2008).

Results and discussion:

The number of patients with connective tissue diseases which require the hospital treatment did not change significantly for the last 3 years: so the number of patients with lupus erythematodes made up 20 in 2006, in 2007 it made up 23, in 2008 it made up 23; 22 patients with scleroderma were treated in 2006, 21 patients in 2007, 23 patients with scleroderma were treated in 2008. We analysed 44 patients' histories with connective tissue diseases, 21 (47,7%) of which were with lupus erythematodes and 23 (52,3%) with sclerodermia, treated in the Amur regional skin veneral dispensary in 2008. Among patients with lupus erythematodes the disease occurred equally often in men (11) and in women (10) as well, in 52% and 48% accordingly. Among patients with sclerodermia 15 (65%) of women prevailed over 8 (35%) of men. The age of patients was as follows patients aged from 16 to 20 made up 4,8 %, aged from 20 to 30 – 23,8 %, aged from 30 to 40 – 9,5 %, aged from 40 to 50 – 23,8%, aged from 50 to 60 – 28,6% aged older than 60 – 9,5%. Patients with sclerodermia aged from 11 to 20 made up 30,4 %, aged from 20 to 30 – 21,7%, aged from 30 to 40 – 87,%, aged from 40 to 50 –4,4%, aged from 50 to 60 –34,8%. Discoid form of lupus erythematodes was diagnosed most frequently in 19 patients (90%); disseminated form- in 2 patients (10%). In patients with limited sclerodermia spotty form was established in 8 patients (34,8), linear form – in 6 (26,1%) of patients, «white spot disease» - in 4 (17,4%), idiopathic Pazini – Pyerini atrophodermia was diagnosed in 2 patients (8,7%). The course of treatment of patients with lupus erythematodes made up from 18 to 28 days, patients with sclerodermia from 18 to 25 days.

Conclusions: Thus discoid lupus erythematodes and spotty sclerodermia occur most frequently: men and women are equally ill with lupus ery-

thematodes, but women become ill with sclerodermia by 2 times oftener than men. The highest level of lupus erythematodes and sclerodermia morbidity occurs in the group of patients aged 50-60.

Leiomyoma of stomach

Moiseenko A.-3d year student

Scientific leader: Ass. Volkov L.A.

Nonepithelialized Benign tumors of stomach (NBTS) are relatively rare and are about 0,5-5% of all tumors of stomach. Leiomyoma, is a benign no epithelial tumor, it grows from smooth muscle of gastrointestinal tract. Among NBTS, leiomyoma is the most common. It can be localized with varying frequency in esophagus, stomach, intestines. Leiomyoma of stomach forms at the age of 16-18 years old, and appears to 30-50 years. It is more common among women aged from 30 to 70. Sometimes it can be found in children and adolescents. It often occurs in combination with gastric ulcer, chronic gastritis, sometimes with other gastric tumors, including malignant. Localization of a tumor is varies. In 21% of cases the tumor is localized in the upper third of the stomach, 33% in the medium, part 26% - in the lower third. Leiomyoma is usually a single tumor. With long-term existence of the surface of the tumor,it becomes hilly, sometimes wounded. In incisory of leiomyoma has grayish-pink color, fibrous structure, precise countors. According to the growth tumors with endogastralnym, ekzogastralnym, intramural can be distinguished spread. Clinical manifestations are various. Often they are asymptomatic. The disease can first appear in such threatening complications as intestinal bleeding, perforation of the tumor. Duration of gastric history is very different - from several months to 10 years and more. Patients may complain of pain of varying intensity in the epigastrium,, dyspepsia, weight loss, weakness, tarry stool. In some patients, the tumor is palpated. Localization of tumors near the gatekeeper may cause a clinical picture of stenosis: pain, nausea, vomiting, weakness, weight loss.

For diagnosis leiomyoma endoscopic, radiological, ultrasound and computed tomography are used. Treatment of leiomyoma is only operative. The volume of transactions depends on the size and localization of tumor: tumor enucleation, wedge resection of the stomach and partial.

50. INNOVATIONS

Korotkikh.-the 6-th year student

Scientific leaders - Professor Borodin E. A.

Innovation is a new way of doing something or "new stuff that is made useful". It may refer to incremental and emergent or radical and revolutionary changes in thinking, products, processes, or organizations. Following Schumpeter (1934), contributors to the scholarly literature on innovation typically distinguish between invention, an idea made manifest, and innovation, ideas applied successfully in practice. In many fields, something new must be substantially different to be innovative, not an insignificant change, e.g., in the arts, economics, business and government policy. In economics the change must increase value, customer value, or producer value. The goal of innovation is positive change, to make someone or something better. Innovation leading to increased productivity is the fundamental source of increasing wealth in an economy.

Innovation is an important topic in the study of economics, business, design, technology, sociology, and engineering. Colloquially, the word "innovation" is often synonymous with the output of the process. However, economists tend to focus on the process itself, from the origination of an idea to its transformation into something useful, to its implementation; and on the system within which the process of innovation unfolds. Since innovation is also considered a major driver of the economy, especially when it leads to increasing productivity, the factors that lead to innovation are also considered to be critical to policy makers. In particular, followers of innovation economics stress using public policy to spur innovation and growth.

Those who are directly responsible for application of the innovation are often called pioneers in their field, whether they are individuals or organizations.

51. THE NOBEL PRIZE 2009 IN CHEMISTRY FOR THE STUDY OF RIBOSOMES

Kovalyova A., Kozhevnikova N. - the 2nd-year students
Scientific leaders - Prof. Borodin Ye.A., Posokhova A.A.

This year Venkatraman Ramakrishnan (Great Britain), Thomas A. Steitz (the USA) and Ada E. Yonath (Italy) were awarded to the Nobel Prize for the investigation of ribosomes and establishment its functions on the anatomical level. All three scientists used the method of X-ray structural crystallography and created the map where they placed each of hundreds of thousands atoms which the ribosome consists of. There is the DNA molecule inside every cell of the whole organism. They contain the

genetic code of a person's organism, plants or bacteria determining its appearance and functions. But the DNA molecule is passive. If nothing happens, there will be no life. The copy is transformed into a vital matrix for the work of ribosomes. Ribosomes produce proteins on the basis of DNA information: oxygen-transporting hemoglobin, antibodies of the immune system, hormones of insulin, collagen of membranes, enzymes that break down sugars. There exist tens of thousands of proteins in the body and all of them have different forms and functions. They build and control life on the chemical level. The understanding of the ribosome's work deep inside is important for scientific understanding of life. This knowledge is the basis of practical and quick use; many modern antibiotics cure various diseases blocking the function of bacterial ribosomes. Without functions of ribosomes bacteria are not active. And that is why ribosome is the most important for making antibiotics. This year three Laureates made 3D models that show how different antibiotics influence on the ribosome. This model is now used in making new antibiotics, control of life memory of a person's body.

52. ALLERGIC REACTIONS

Legchikova Ya., Sokolova G.-the 2nd students
Scientific leaders-Prof. Krasavina N.P.,Yegorova V.D.

The term «allergy» is used to designate reactions of higher sensitivity of the organism to substances of different origin (antigenes, allergenes, haptenes).

The clinical practice defines this term within the framework of such allergic diseases as: bronchial asthma, polinosis, allergic rhinitis, allergic dermatosis, drug and food allergy, insect allergy and others.

Investigations showed that for the last 30 years the spread of allergic diseases was doubled during every 10 years.

Clinical manifestations of allergic diseases and reactions develop after the repeated contact of the organism with allergen.

The activity of allergen depends on many its features; particulary the more expressed reaction is caused by allergens of protein (origin); the molecule of allergen must be * large enough to have antigenic properties, that is to induce the production of allergic antibodies.

The variety of allergic reactions demanded systematization of allergic reaction. At present classification according to Well and Coombs is wedely spread, they distinguished 4 types of reactions of hypersensivity:

Anaphylactic type is characterised by the synthesis of antibodies with special cellular affinity (homocytotrapic);

Cytotoxic type is characterised by the formation of antibodies;

Immunocomplex is characterised by the formation of immune complexes, containing immunoglobulins (antibodies of different classes);

Cellular immunity is caused by the interaction of sensitized T-lymphocytes, wich have specific receptors on their surfaces.

53. MEMORY. WHAT IS IT?

Razdobudko M. – the 2-year student
Scientific leaders – C.M.Sc Shestakova G.I., Parshina A.N.

As everyone knows, one of the most important tasks of the student - is studying, as its integral part is memorizing new information, but this is done with memory. Memory - is a mental property, the ability to generate, memorize, store, reproduce information, the ability to recall specific memories from the past, recognizing not only the experience, but also its place in the history of human beings, its placement in time and space.

There are several reasons for the classification of human memory. We distinguish: immediate, short-term, operational, and long-term genetic memory, motor, visual, auditory and other species. Psychology, biology, medicine, genetics, cybernetics, physiology, and other study memory. There are their issues due to which they refer to the problems of memory, its own system of concepts and, consequently, their theories of memory. Now days we can estimate such theories as geshtaltteoriy, theory of beheviorizm and psychoanalysis, activities, semantic, information-cybernetic theory of memory. Each of them has its advantages and disadvantages, and none of them is not proved nor disproved.

Important role in the mechanisms of memory plays the hippocampus, the gyrus of the cerebral hemispheres, which is located in the temporal lobe. The hippocampus is a part of a limbic system, and it stores information, it can transfer information from short-term memory into long -term.

Summing it, we can formulate some recommendations to improve your memory:

1.the information that we can express in words, usually is remembering easier and better than what we can only perceive visually or aurally.

2. The more we think over the material, the more active we are trying to present it visually and in words, the easier and stronger it is remembered.

3. If the object to memorize is the text, the presence of predefined and clearly articulated to him questions to which answers can be

found in the process of reading the text, contributes to his best remembering.

4. Proper organization of information and it's reproduction in such psychological conditions, which are identical to those in which the memorization took place.

5.So as far as attention paid to the material depends on, it's memorization methods let you manipulate attention, may be useful to remembering.

6. Positive emotions tend to contribute to the recall, and the negative emotion disturb it.

7. Exercises and activities for the understanding of various texts, drawing plans for them have great benefit in improving the memory of the students.

8. To better remember the material it is recommended to revise it just before a normal bedtime. In this case, the information keeps in mind, because it will mix with other impressions, which are usually within a day of overlap and thus interfere with memorization, by detracting our attention.

However, one should be remember that all methods are good only when they fit this person when he chose himself, invented or adapted, based on his own tastes and life experience.

54. ANOREXIA IS A SOCIAL PROBLEM OF THE MODERN WORLD

Kilimichenko K. – the 2nd year student.
Scientific leaders – CMSc Schestakova G. I., Rudenko A. I.

What is anorexia nervosa? Anorexia nervosa, commonly referred to simply as anorexia, is one type of eating disorder. More importantly, it is also a psychological disorder. Anorexia is a condition that goes beyond out-of-control dieting.

Who is at risk for anorexia? Approximately 95% of those affected by anorexia are female, but males can develop the disorder as well. While anorexia typically begins to manifest itself during early adolescence, it is also seen in young children and adults. What causes anorexia? Some experts feel that demands from society and families could possibly be underlying causes for anorexia. For many individuals with anorexia, the destructive cycle begins with the pressure to be thin and attractive. A poor self-image compounds the problem. What are anorexia symptoms and signs (psychological and behavioral)? The individual can become seriously underweight, which can lead to depression and social

withdrawal. The individual can become irritable and easily upset and have difficulty interacting with others. Sleep can become disrupted and lead to fatigue during the day. Attention and concentration can decrease.

How is anorexia treated? Anorexia may be treated in an outpatient setting, or hospitalization may be necessary. For an individual with severe weight loss that has impaired organ function, hospital treatment must initially focus on correction of malnutrition, and intravenous feeding may be required. A gain of between 1-3 pounds per week is a safe and attainable goal when malnutrition must be corrected.

55. THE INFLUENCE OF DIHYDROQUERCITOL ON CLINICAL AND PATOGENESIS COURSE OF VULGAR PSORIASIS

Kolesova M.V., Khohlova E.M. – the 4-th year students
Scientific leaders – Ass. N.I. Afanasyeva, L.S. Korneeva, L.N. Fedotova, A.A. Posokhova

Psoriasis is still the actual medical and social problem of modern dermatology in spite of at progressive achievements in medicine of the last decades. According to the data of different investigators about 7% of people in the world suffer from psoriasis and among inpatients with dermatological diseases it is about 20%-30%.The disease defeat mainly young persons and it is characterized by prolonged, persistent, recurring course. Prolonged course, frequent attacks of disease make the patients' quality of life worse.

It should be noted that the interest to the research of radicals plays the great role in the pathogenesis of many diseases. In the connection the study of lipid peroxidation and AOS in psoriasis is of the great interest in the deep presentation of pathogenesis and probably in the development of pathogenetic methods of treatment of this dermatosis. For diagnostics of the radical processes pathology and the estimation of the treatment efficiency it is accepted to determine in the blood plasma and erythrosytes the content of radical formation's products and also the indices of antioxidant protection of the organism. Against the backround of the traditional therapy we use "Lavikard" (the main activating substances are dihydroquercitol and vitamin C). Dihydroquercitol is referred in nature to the wide spread group of flavonoids. The preparation has the high antioxidant activity. We observed 120 patients with vulgar psoriasis, aged from 18 to 60 with the average duration of the disease 12,5 years. The clinical investigation was made in the traditional way with the estimation of severity of psoriatic process and definition of PASI index.

We received that the activity of lipid hydroperoxids in patients with psoriasis before treatment was higher than the level in the healthy group. Moreover, we marked the expressed depression of AOS in these patients. After complex treatment with dihydroquercitol the exacerbation of disease wasn't so often than after the traditional treatment. The time of exacerbation in 2 groups was different too. After the traditional therapy an exacerbation appeared immediately and was revealed during 12 months with 82,5% patients. The exacerbation after complex therapy with dihydroquercitol marked with 30,8% patients during 12 months. Complex treatment with dihydroquercitol exerted the positive effect on primary products of lipid peroxidation and AOS patients with the vulgar psoriasis. These biochemical indexes reliably reduced to control level. The standard treatment reliably reduced the contents of lipid peroxidation and AOS products in blood of patients. But they considerably exceeded the data of healthy persons and indexes after therapy with the inclusion dihydroquercitol.

So, using the dihydroquercitol in complex treatment of vulgar psoriasis assists not only further achievement of clinical improvement but also decreases biochemical lipid peroxidation and AOS options of organism.

56. BREATH TEST FOR DIFFERENTIAL DIAGNOSIS BETWEEN SMALL INTESTINAL BACTIRIAL OVERGROWTH AND IRRITABLE BOWEL DISEASE

Kolesova M.V., Khoclova E.M. – the 4-th year students
Scientific leaders – C.M.Sc. I. P. Soluyanova, A.A. Posokhova

Irritable bowel syndrome is a very common diagnosis in gastroenterology that is done on the basis in the Rome II symptomatic criteria. The basic clinical pattern is characterized by abdominal pain and changes in bowel habit, on the basis of which three different variants of IBS are recognized (IBS with stipsis, IBS with diarrhea or IBS with alternated stipsis and diarrhea). No matter which variant is diagnosed, 92% of the patients with IBS complain of abdominal bloating, flatulence and meteorism, three symptoms that are more probably related to a small intestine bacterial overgrowth (SIBO) rather than to IBS.

A close relationship exists between the changes in pattern and distribution of gastrointestinal (GI) bacterial flora, and the altered GI motility (changes in bowel habit) and sensorial physiology (abdominal pain and bloating) observed in patients with IBS. It is well known that both in acute GI infection and use of systemic antibiotics lead to profound chang-

es in GI bacterial flora, and that both the conditions may result in symptoms (such as abdominal bloating and changes in bowel habit), which look like those of IBS.

It has been reported that even one single cycle of systemic antibiotics may provoke long-time sustained alterations of GI physiology, while a treatment with antibiotics specifically addressed to correction of intestinal disbiosis is followed by an improvement of IBS- or SIBO-related symptoms. Thus, there is ground to believe that there is a large overlapping between SIBO and IBS, and that many patients with an earlier symptomatic diagnosis of IBS are actually suffering from SIBO. The different values in SIBO prevalence observed worldwide among patients with an initial diagnosis of IBS are probably due to the different methods employed to detect the bacterial colonization of the small intestine: a typical and simple clinical-laboratory test («breath test» with lactulose). Investigators have found a lower prevalence using the direct complex method of the GI bacterial count, is should be noted that the «breath test» with lactulose or glucose, with the determination of hydrogen concentration in the expired air, is considered an indirect but highly specific, method for diagnosis of SIBO. On the other hand, the symptomatology in both SIBO and IBS is almost identical and only a «breath test» can help the differential diagnosis between two disorders.

In conclusion, about half of the subjects with a symptomatic diagnosis of IBS have SIBO as a main cause of their claimed symptoms, which have been initially imputed to IBS; only a “breath test” either with lactulose or with glucose in subjects with intolerance to lactose, can provide a differential diagnosis between IBS and SIBO with identical symptoms; the use of non-absorbable antibiotics is useful in reducing the degree of GI bacterial contamination and related symptomatology, although the correction of wrong dietary habit remains the milestone in the management of SIBO if we want to maintain the results achieved with antibiotic treatment for quite some time.

57. PARKINSON’S DISEASE

Karpanin V. – the 2nd year student
Scientific leaders – M.D. Gordienko E.N., Rudenko A.I.

Parkinson's disease is a degenerative disorder of the central nervous system that often impairs the sufferer's motor skills, speech, and other functions. Parkinson's disease belongs to a group of conditions called movement disorders. It is characterized by muscle rigidity, tremor, a slowing of physical movement (bradykinesia) and, in extreme cases, a loss of

physical movement (akinesia). The primary symptoms are the results of decreased stimulation of the motor cortex by the basal ganglia, normally caused by the insufficient formation and action of dopamine, which is produced in the dopaminergic neurons of the brain. Parkinson's disease is both chronic and progressive. The disease is named after English physician **James Parkinson**, who made a detailed description of the disease in his essay: "An Essay on the Shaking Palsy" (1817).

There are other disorders that are called **Parkinson-plus diseases**. These include: multiple system atrophy, progressive supranuclear palsy and corticobasal degeneration. Some include dementia with **Lewy bodies** — while idiopathic Parkinson's disease patients also have Lewy bodies in their brain tissue, the distribution is denser and more widespread in dementia with Lewy bodies. The natural history and role of Lewy bodies is little understood.

Parkinson's disease affects movement, producing motor symptoms. Non-motor symptoms, which include autonomic dysfunction, cognitive and neurobehavioral problems, and sensory and sleep difficulties, are also common but are under-appreciated. Four symptoms are considered cardinal in Parkinson's disease: tremor, rigidity, bradykinesia and postural instability. Other motor symptoms include: Gait and posture disturbances, speech and swallowing disturbances, fatigue, hypomimia, micrographia, impaired fine motor dexterity and motor coordination.

Parkinson's disease causes neuropsychiatric disturbances, which include mainly cognition, mood and behavior problems and can be as disabling as motor symptoms.

Most people with Parkinson's disease are described as having idiopathic Parkinson's disease (having no specific known cause). There are far less common causes of Parkinson's disease including genetic, toxins, head trauma, cerebral anoxia, and drug-induced Parkinson's disease.

The symptoms of Parkinson's disease result from the greatly reduced activity of pigmented dopamine-secreting (dopaminergic) cells in the pars compacta region of the substantia nigra (literally "black substance"). These neurons project to the striatum and their loss leads to alterations in the activity of the neural circuits within the basal ganglia that regulate movement, in essence an inhibition of the direct pathway and excitation of the indirect pathway.

Parkinson's disease is a chronic disorder that requires broad-based management including patient and family education, support group services, general wellness maintenance, physiotherapy, exercise, and nutrition. At present, there is no cure for Parkinson's disease, but medications or surgery can provide relief from the symptoms.

58. DIABETES MELLITUS. CHANGES OF A1 HEMOGLOBIN.

Skolubovich A. – the 3rd year student
Scientific leaders - Prof. Borodin Y. A., Teplishcheva M.M.

Diabetes mellitus is a condition when the body either does not produce insulin, the pancreas hormone at all or does not produced it in sufficient quantities. Insulin enables cells to absorb glucose in order to turn it into energy. In diabetes, the body either fails to properly respond to its own insulin, does not produce enough insulin, or both ones.. This causes accumulation of glucose in blood, that often leads to various complications.

Diabetes screening is recommended for many people at various stages of life, and particularly for those with several risk factors. The screening test varies according to circumstances and local policy, and may be a random blood glucose test, a fasting blood glucose test, a blood glucose test two hours after 75 g of glucose, or an even more formal glucose tolerance test. Many healthcare providers recommend universal screening for adults at age 40 or 50, and often periodically thereafter. Earlier screening is typically recommended for those with risk factors such as obesity, family history of diabetes, high-risk ethnicity.

Glycated hemoglobin is a form of hemoglobin used primarily to identify the average plasma glucose concentration over prolonged periods of time. Concentrations of hemoglobin A1 are increased, both in diabetic patients and in patients with renal failure, when measured by ion-exchange chromatography.

Diabetes mellitus is a chronic disease which is difficult to cure. Medical emphasis must be made on managing possible short-term as well as long-term diabetes-related problems. The important role for patient plays education, following a diett, self monitoring of blood glucose.

59. FOOD SECURITY

Sheludko E.G., the fifth year student
Scientific leaders: Abasova E. S., Bibik LA.

Three food poisoning outbreaks from the most serious ones among air passengers registered for the last 10 years, have been caused by numerous of reasons: eating an omelet with a ham, contaminated with staphylococcus, got there from the damaged a chief-cook's finger , snack from the shrimps, infected with Vibrio parahaemolyticus during preparing crude mollusks by airplane crew who hadn't washed up hands, and mayon-

naise contained eggs infected with salmonellas. Some cases of death were registered during the last outbreak. Above mentioned examples are relate to air travels, however the same principles are referred to travels by sea, by train and by bus to the same extent. Tourists are not unique travelers for whom food security is a question of extreme importance. The mass pilgrimage of pilgrims to sacred places, international migration of millions people in searches of work, usual travels of thousand sea dealers between ports on any continent - everything is connected with dangers because of pollution of food and non-observance the hygiene rules which necessary to reduce to a minimum level. WHO (World Health Organization) isn't responsible for realization health legislation or managing of healthcare system in any separate country. Its mission in the field of environmental sanitation comes reduce to administration to national heads of healthcare system in creation and realization an adequate program of sanitary-and-hygienic actions All aspects of cooking and serving food, water-supply security, ways of exploitation toilet-rooms with consideration for sanitary rules, ways of removing liquid and firm dross, cleaning of internal rooms of planes, transportation of goods and harmful insect control and other carriers of illnesses - everything is carefully examined in the guide of 150 pages. National bodies of health administration should take the responsibility for maintenance of hygienic norms on public catering.

60. IMPLEMENTATION OF THE MOST IMPORTANT PROBLEMS OF ANATOMY XX CENTURY

Zatsepilina E., Echkina O.–the 2 year students
Scientific leaders ass. Pavlova A.E., Parshina A.N.

The 20th century was a century of vascular and nervous system researches for anatomists. The great attention was paid to elucidation of different parts of venous system flexibility. Of late years collateral circulation researches gain in more practical importance by means of rapid thoracic and abdominal surgery development. Clinic shows special interest towards organ revasculization problem and creation accessory blood supply for them. Soviet anatomists showed true interest to brain blood supply features. Experimental cardiac revasculization study conducts in very intensive way in our country and abroad. Vascular system flexibility study needed to extend our knowledge in the field of vessel innervation. Vessel research technique made such a great progress that, perhaps nowadays, there is no anatomy department in our country which would research angiology problems in one or another measure. The anatomists, who studies vascular system morphology, are armed with numerous and perfect injec-

tion and clarification methods, ways of vessel stain and impregnation, corrosive method with use of plastic materials, X-ray angiography, use of tagged elements, methods of lifetime vessel observation. Experimental-morphological vessel researches achieved a high level.

Neuromorphology.

Soviet anatomists paid a great attention to nervous system morphology. For 35 post-war years the largest number of anatomical theses was devoted to nervous system. In 30s the further nervous system anatomical researches intensification took shape, what was accompanied with conversion from macro-microscopy to microscopy. Neuromorphological subject area remains for years the main in research work programmes of anatomy departments of many medical institutes. Researches of Golub D.M. and his numerous students among them were Slobodin Z.G., Tureckiy I.M., Lobko P.I., Amvrosyev A.P., Leontyuk A.S., Gapeev I.A. were originally turned through nerve system embryonal development. Innervation sources, peripheral innervation formation, nerve plexuses and trunks development were studied. Autonomic plexuses multisegmentation, continuity of prevertebral plexus which divides by embryogenesis on cardiac, celiac, hypogastric and pelvic were ascertained. Cross-connections, main ways and bypaths of neurotisation were discovered. Thus the soviet anatomists fortified nervism positions as a theory of individual mediation in his life activity, in interaction with outdoor environment. They made the ideas of nervous system integrating functions deeper.

Conclusion. Science became a national matter, guidance beginning by programming socialist formation, huge productive force of society. The passed period was characterized by common propulsion of all morphological sciences including anatomy. Soviet evolutionary morphology succeeded internationally. In its limits were made important generalization of embryological, histological, comparative-anatomical and paleontological findings. Extremely successful was experimental morphology that paved the way of purposeful influence on morphogenesis. During the pass 60 years the anatomists of USSR added vivid pages in brain morphology, macro- and microscopic peripheral nervous system anatomy, vascular system and glands. Important step forward was made by eminent representatives of comparative anatomy – Severtsov A.N. and Schmalhausen I.I. their works served to further development of Darwin's teachings and theory of evolution in general.

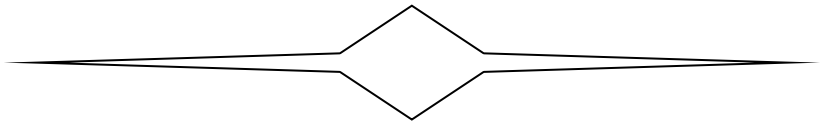
61. THE USE OF RECOMBINANT ERYTHROPOIETINS FOR TREATMENT OF ANEMIA IN PATIENTS WITH HEMOBLAS-

TOSES.

Somova A.A. – the 5th-year student

Scientific leaders: CMC., Ass. Prof. Voitsekhovskiy V.V.; Posokhova A.A.

The efficiency of the preparation epoetin alfa in the treatment of anemia in patients with hemoblastoses who were treated in the hematologic department of the Amur regional clinical hospital was investigated. The level of hemoglobin during the treatment by epoetin alfa made up 60-100 g/l in all patients with chronic lympholiferative tumors, in patients with the syndrome of myelodysplasia and refractory anemia the level of hemoglobin was less than 60 g/l. Epoetin alfa was prescribed in the initial dose 10000 of international units 3 times a week, subcutaneously. The increase of hemoglobin over 120 g/l was marked in all patients with multiple myeloma after 1-2 months of treatment. The growth of hemoglobin level in patients with multiple myeloma was stable, we did not have to increase the dose of preparation in not a single case. Epoetin alfa turned out to be inefficient in patients with syndrome of myelodysplasia, refractory anemia, the nessary growth of hemoglobin level was not marked in not a single case. Nowadays epoetin alfa is the prepation for treatment of anemia in patients with multiple myeloma and indolent lymphomas if there are no serious clinical manifestations of the syndrome of anemia in any indices of erythrocytes and hemoglobin.



DEUTSCHE ABTEILUNG

1. DIE ARTEN VON BRUSTDRUSEN GESCHWUL

Bossauer W. – die Studentin des II. Studienjahres
Wissenschaftliche Leiter – M. M. Gorbunow; N.A. Tkatschjowa

Die physiologische Prozesse, die in der Brustdruse geschehen, sind immer unter Hormoneinwirkung. Die Mastopathie ist dyshormonale gutartige Erkrankung der Brustdruse. Sehr oft nennt man die Brustdruse. Fibroadenomatose .Man muB diese Erkrankung von gutartige Brustdrusengeschwulst (Fibroadenom) unterscheiden. Das sind verschiedene Krankheiten. Brustdrusenkrebs ist heutzutage eine sehr oft vertretende bosartige Geschwulst bei Frauen. Jarlich sind in der Welt etwa 1 Milione des Brustdrusenkrebses neu erkannt. Zu 2010 prognosieren die Wissenschaftler die Erkrankungszunahme bis 1,45 Millionen. In seinem Lebenslauf erkrankt in USA an Brustkrebs eine aus 8 Frauen. Im Russland betragt Erkrankungswahrscheinlichkeit fur neugeborenes Madchen 3,5%, aus dennen 1,8% zugrunde gehen mochten. In Sankt-Petersburg wurden im Jahre 2003 etwa 1900 Menschen erkrankt. In den letzten 25 Jahren wuch Brustdrusenkrebs in Leningradgebiet auf 200%, in Sankt-Peterburg auf 150%. In der histologische Klassifikation des Brustdrusenkrebses sind verschiedene histolodische Formen entdeckt: durchflussige, lobare, schleimige, papillare, medullare, tubilare, adenokystose Brustwarzekrebs von Pedshet. Der Brustwarzenkrebs nach Pedshet unterscheidet vom Benelekzem und von der Psoriasis zu wenig. Errotung und Verdickung der Warze ist oft mit Feuchtigkeit und Rindebildung begleitet. Die Warze auBert und verdickt.

2. DAS EXTRAPYRAMIDSYSTEM

Irbetkina A.- die Studentin des II. Studienjahres.
Wissenschaftliche Leiter: L.G. Sherepa ,N. A. Tkatschjowa.

Das Extrapyramidsystem ist Wege- und Kernegesamtheit, die die komplizierte und bewustlose Bewegungsakte gewahrleisten. Geben die Impulse, die durch Fasern des Pyramidtraktes gehen, den bewusten Bewegungen der Geschmeidigkeit, Gleichmassigkeit und Abrundung, so wird ganz klar warum erscheint die Kern- und Zentrenverletzung des Extrapyramidsystem in der Klinik der Zerstorung diesen behelfsmassigen Bewegungsakten (Parkinsonismus, Chorea). Das Extrapyramidsystem ist kein stregbegrenztes anatomischen und funktionellen System. Sie vereinigt einige Teile der Hirnrinde, Basalkerne, Kernbildungen des Hirnstammes, Kleinhir, Segmentarapparat des Ruckenmarks und auch weite Kommunikationen, die blitzschnelle Integration mehreren Neuronal-

systeme verwirklicht.

Zusammensetzung: Das Extrapyramidsystem besteht aus Streifenkorper, der aus caudalem Kern, linseartigem Kern, Medialkerne des Thalamus, subthalamischem Kern, Hippothalamuskerne,schwarzer Substanz, rotem Kern, Kernen der retikulare Formation und Olive des Langshirn. Das Extrapyramidsystem vereinigt auch extrapyramidale Begleitsbewegungen. Die Untersuchungen haben gezeigt, dass der caudale Kern, die Schale nehmen nicht nur in der Regulation motorischer Tatigkeit teil, aber auch fuhrt komplizierte Formen der angeborenen Verhalten, Mechanismen des kurzzeitigen Gedachtnis durch und beteiligt in der Regulation des Zyklus «Wachzustand- Traum».

3. DIE FUNKTIONELLE ASYMMETRIE DER GEHIRNHALBKUGEL

Tschurin W. – der Student des 2 Studienjahres
Wissenschaftliche Leiter: L. G. Sherepa, N. A. Tkatschjova

Das Wort Asymmetrie bedeutet Ungleichmessigkeit, Verschiedenartigheit. Warum fasst der Mensch die Welt als etwas Schones? Wahrscheinlich wohnt die Asymmetrie im Mensch und ist der Asymmetrie der Umwelt komplementar. Und wirklich haben die zwei Halfte des Gehirns die Welt nicht ahnlich aufgefasst. Das Gehirn funktioniert also asymmetrisch: es gibt keine Funktion, die der Gehirnhalbkugel wiederholt wurde, fur die die linke und die rechte Hemisphere verantwortet hatte. Diese Erscheinung nennt man funktionelle Asymmetrie. Das Erlernen der funktionelle Asymmetrie der grossen Gehirnhalbkugel beginnt in der Mitte des 19. Jahrhundert. Es waren die Patienten mit herdformigen Hirnverletzungen, die durch Gehirnschlagen und Schadel – Hirnverletzungen hervorgerufen werden, untersucht. Es war festgestellt, dass die Verletzung des linken Hirnhalbkugelrinde in 85% der Falle zu Zerstorung der Rede fuhrt (nach Brock). In 30 – 40 Jahren began das Erlernen der funktionelle Asymmetrie auf den gesunden Menschen. Die Asymmetrie teilt man in 3 Hauptarten: psychische, motorische, sensore. Motorische Asymmetrie ist die Asymmetrie der Beine – , Arme – , Gesichtsmuskelnfunktion. Beim Rechtshander ist z.B. die linke Hand mehr ausdauernd zum statischen Kraftaufnand als die rechte Hand; die Muskel der linken Teil des Gesichts sind starker als dennen der rechten Teil. Sensore Asymmetrie ist die A. des Sinnesorganefunktionierens. Sensore A. ist standige Wirkung des zentralen Systems. Man unterscheidet die A.des Geruchsorgans, des Horapparats, der Sehensorgane, der Geschmacksorgane. Es ist bekannt, dass das fuhrende Auge sieht den Gegenstand schneller und deshalb geschieht seine

Akkomodation auch schneller. Das Objekt wird grosser und kontrastreicher gefasst. Die Horasymmetrie gilt als wiederstandiger Art der sensoren A., weil die Sehensasymmetrie nach 30-35 Jahren niveliert wird, aber in der Horasymmetrie nach 40-45 Jahren des Lebens werden solche Prozesse geschehen. Das Vohandensein der Interhirnhalbkugelzusammenhange versorgt die Informationsubergabe in andere Halfte.

4. DIE GESCHICHTE DER ENTSTEHUNG DER MEDIZINISCHEN SYMBOLIK.

Fateewa M.-die Studentin, des II Studienjhares
W.W.Kochura, N.A.Tkatschjowa

In der griechischen Mythologie gilt Asklepios als Sohn des Sonnenlichtes, Musik und Poesie, als Gott der Heilkunst. Der mythologischen Tradizion nach war Asklepios durch Kaiserschnitt geboren, der sein Vater Apollon durchgefuhrt hatte. Apollon zog den Saugling aus dem Mutterleib sterbender Koronida, die Tochter von Titanen Phlegij. Asklepios studirte die Heikunst biem Zentaur Hiron, dem Apollon die Erziehung seines Sohnes anvertraut hat. Bald hat der Schuller seinen Lehrer ubertroffen. Er hat nicht nur den Kranken geheilt, sondern auch zum Leben den Gestorbenen wiedergekehrt. Das forderte Aides Zorn heraus, der als Gott der unterirdischen Welt und Zarenreiches der Toten war. Laut Uberlieferung heiratete der Gott Asklepios Epiona, die Tochter von Merop aus Koz, der spatter als Zentrum der medizinischen Kenntnissen des altertumlichen Griechenlandes war. Hier lebte Asklepios Gens, zur auch Hippokrat gehorte, der auch in Koz(ungefahr 460 Jahr vor unserer Zeitrechnung) geboren war. Hippokrat gilt als 17. Nachkomme von Asklepios. Sehr verehrte Kinder von Asklepios waren: Podilarij, der innere Krankcheiten heilte; Hygieia- die Gottin der Gesundheit(Hygia- lat. Gesunheit) und Panakeia- die Gonnerin medikamentoser Heilung(von Panazee- das Allheilmittel). Der Legende nach wurden alle Kinder von Asklepios der Heilkunst von seinem Vater gelehrt.Hygieia wurde mit einem Weinglas, das von einer Schlange umwunden ist, geschildert.Das ist direkte Zusammenhang mit modernen medizinischen Symbolik; Weinglas von einer Schlange umwunden ist.

5. ANTIOXYDANZIEN.

T. Ignatenko- Student des 3. Studienjahres
Wissenschaftliche Leiter-Assp. O.G. Krugiowa, O.A. Kornewa.

In den ökologisch sauberen Gebieten des Ostsibirien, die Baikalufer entlang, wachst einzigartige Naturschopfung- die Lärche. Larcheradeln

enthalten alterische Ole, Askorbinsäure, Flavonoide. Das Larchenholz hat einen Komplex von Bioflavonoiden, die starke Antioxydanzien sind.

Antioxydanzien sind die grosste Gruppe der biologisch aktiven Verbindungen, die in der Natur sehr verbreitet sind. Das Spektrum der biologisch aktiven Wirkung der Antioxydanzien ist sehr verschiedenartig und ist durch ihre Schutzfunktionen bedingt. Zu den bekannten Antioxydanzien gehören Thokopherole (Vitamin E), Karotinoide (Vitamin A), Askorbinsäure (Vitamin C) und Naturverbindungen pflanzlicher Herkunft-die Flavonoide.

Die Flavonoide sind die grosste Gruppe der Phanolverbindungen der Natur, in deren Grundlage Diphenilpropan liegt. Die Flavonoide bekamen ihren Name vom latainischen «flavus» - «gelb». Sie haben gelbe Farbe.

Der gefahrlichste Faktor, der auf den Organismus destruktiv wirkt, sind die freie Radikale (besonders des Sauerstoffes). Gerade sie wirken auf solche Erscheinungen, wie Zell- und Organismusaltern, Zelltod, erbliche Störungen, Störungen des Stoffwechsels.

Darum erscheint die Notwendigkeit der kunstlichen Regulation der Zahl von freien Radikalen in Organismus um verschiedene patologische Prozesse zu beseitigen. Zur Zeit wird experimentelle Suche der Dosis und des Termins der Antioxydanzienführung zur kunstlichen Regulation der freien Radikalen und Beseitigung der Prozesse durchgeführt.

6. DIE EINSCHÄTZUNG DER PHARMAKOOKONOMISCHEN EFFEKTIVITET DER HYPOTENSIONSTHERAPIE DEN KRANKEN MIT DER HOCHDRUCKKRANKHEIT.

E. Nikischina - Studentin des 4. Studienjahres
Wissenschaftliche Leiter: I. W. Skljar, O. A. Kornewa.

Arterielle Hochdruckkrankheit ist eine der verbreitesten Erkrankung, deren Entstehung mit der bedeutenden Zunahme des Risiko bei der Entstehung der Herz -Kreislauf- Komplikationen und der Sterblichkeit verbunden ist.

Arterielle Hochdruckkrankheit ist eine ökonomisch ausgegebene Krankheit. Die durchgeführte Analyse des Therapiekosten in Russland zeigte, dass die direkte und nicht direkte Ausgaben für die Behandlung der Patienten mit der nicht komplizierten Hochdruckkrankheit 7,5 und 4,7 Milliarde Rubel ausmachten. Die Bechandtungsausgaben für die mit der Hochdruekkrankheit assoziirten Krankheiten (Stenokardie, Schlaganfall) machten 35,1 und 8,9 Milliarde Rubel pro Jahraus.

Das Ziel unserer Untersuchung war das Studium der pharmakoo-

konomischen Effektivität der Hypotensionstherapie bei der Kranken mit der Hochdruckkrankheit.

57 Kranken mit der Hochdruckkrankheit, die in der kardiologischen Abteilung des HEG KSK-s in Behandlung standen, wurden untersucht.

Die Diagnose wurde mit der Rucksicht auf die nationalen Empfehlungen in Prophylaxe. Diagnostik und Behandlung der Hochdruckkrankheit gesk'i. Die Frauen machten 85,6% aus. Manner - 14,4%. Das Mittelalter der Patienten war 53,4+-l,72 Jahre. Die Krankheitsdauer machte 10,57+-1,2 Jahre aus. Die Kranken wurden in 2 Gruppen geteilt. In der ersten Gruppe waren 32 Patienten mit der Hochdruekkrankheit, die in der Gesundheitsschule lernten und in der komplexen Hypotensionstherapie standen, in zweiten - 25 Kranken, die sich am Ausbildungsprogramm nicht beteiligten. Die Ausbildung wurde in den Gruppen aus 7-8 Menschen durchgeführt und im Laufe von 1 Jahr wurden die Kranken überwacht.

Pharmakookonomische Analyse wurde mit der Methode "'Kosten - Effektivität (cost etfectiveness) durchgeführte. Die angegebene Methode lasst das Verhältnis der Gesamtkosten des Behandlungsprogramms zur Einheit des Effektivitatsergebnisses - bestimmen.

Medizinisch-soziale Ausgaben bei den Kranken mit der Hochdruekkrankheit wurden aus den direkten Ausgaben für die Hochdruekkrankheit und nicht direkten Ausgaben, wie absolute Grosse der Verluste der Regionaleinkommen infolge von der zeitweiligen Arbeitsunfähigkeit der Kranken addiert. Nicht direkte Ausgaben waren ausser unserer Untersuchung. Die ökonomische Analyse der Effektivität der Gesundheitsschule zeigte bei den Kranken, die in der Gesundheitsschule gelernt hatten, eine bedeutende Reduzierung der direkten Ausgaben für Hochdruekkrankheit.

So wird in der Grundgruppe der Hochdruckkranken die Einsparung von Geldmittel vom Ausbildungsprogramm 3184, 15 Rubel pro einen Kranke festgestellt. In der Kontrollgruppe wurden die Ausgaben für die Behandlung der arteriellen Hochdruekkrankheit auf I 13717 Rubel erhöht.

7. BESONDERHEITEN DES MELANOMS.

S.Rsaewa - Studentin des 4. Studienjahres
Wissenschaftliche Leiter - E. W. Dubjaga, O. A. Kornewa

Da Melanom eine der bösartigsten Geschwulste ist, muss man eingehende über die Besonderheiten seines Verlaufes, Wachstums und der Metastasierunng erzählen.

Melanom entdeckt man 7-8 Mal so seltener, als Hautkrebs. Es

wird 1,5 % vom Gesamtteil der bösartigen Geschwulste zuteilt. Das höchste Morbiditätsniveau wird in Australien beobachtet. In den europaischen Landern tritt es bei 4-8 Menschen pro 100000 der Bevölkerung auf.

Die Melanomsmorbiditat steigt. Die Wachtumsintensitat des Melanoms ist hoher als bei anderen bösartigen Geschwulsten. Morbiditatskennziffer steigt sich in allen Altersgruppen, am schnellsten aber steigt sie bei den Menschen, die junger als 30 Jahre sind.

Altersspezifische und Geschlechtsbesonderheiten. Bei den Frauen tritt Melanom häufiger als bei den Manner auf. Melanome, die sich auf den offenen Korperteilen befinden werden bei den Frauen 3 Mal so häufiger als bei den Manner beobachtet. Morbiditätsniveau steigt sich mit dem Alter. Die Menschen mit weißer Haut, hellen Augen und Haaren erkranken häufiger.

Lokalisation Melanom erscheint gewohnlich in der Haut, es tretten manchmal Extrahautstorungen der Regenbogenhaut, der Vulva, der Scheide und des Mastdarms auf. Die Geschwulst lokalisiert sich bei der Hälfte der Kranken in unteren Extremitäten, seltener im Korper (20-30%) und in oberen Extremitäten (10-15%) und nur in 10-20% der Falle im Hopf -und Halsgebiet.

Verlauf. Melanomverlauf ist unvorhersehbar. Gewohnlich verstärkt sich die Geschwulst sehr rasch, aber manchmal wird torpider Krankheitsverlauf beobachtet.

Wachstum und Verbreitung. Melanom wachst sich in 3 Richtungen: über die Haut, durch ihnne Flache und in die Tiefe. Neubildungsdicke hat eine vorbeugende Bedeutung. Unter diesem Terminus versteht man die Große der Geschwulst von der Flache in die Tiefe der Haut. Sie wird unter dem Mikroskop bestimmt. Nach Breslau (1970) unterscheidet man 4 Abstufungen der Dicke: weniger als 0,75 mm; 0,75-1,5 mm; 1,5 - 4,0 mm; mehr als 4,0 mm. Melanome mit der Dicke weniger als 0,75 mm verlaufen am gunstigen. Bei der Dicke mehr als 4 mm sterben ungefähr 70% der Kranke.

8. NEUROTISCHEN REAKTIONEN BEI DEN SPORTLERN.

E.Pendjurowa Studentin des 4.Studienjahres
Wissenschaftliche Leiter - N.W.Gordeewa, O.A.Kornewa.

Das zunehmende Interesse zu den Problemen der psyhologischen Vorbereitung eines Menschen zur Tätigkeit in Extremsituationen bedingte eine erhöhte Aufmerkseimkeit zu dem psychischen Zustand der Sportler. Psyhotherapeute haben das System der emotional-willensmassigen Vorbereitung entwickelt.

Neurotische Reaktionen bei den Sportlern in den Bedingungen von angestrengten Wettkampfe muss man nicht als Erscheinung der haltbaren Pathologie betrachten. Psyhoprophylaxe und Psyhotherapie der neurotischen Reaktionen erscheinen als ein Problem wegen ihrer negative Wirkung aufs sportliche Ergebnis. Neurotischen Reaktion, die plötzlich wahrend des Wettkampfes erscheint, kann die langjährige Arbeit des Sportlers zunichte machen.

Nosophobien. Bei den Sportlern entsteht vor der Wettkämpfen psychologische Bearbeitung der unangenehmen Gefühle, unter deren Einwikung verschiedene Nosophobien entstehen können. Unter ihnen sind Kardiophobien die verbreitesten. Vor den entscheidenden Wettkampfen wird bei den Sportlern das Herz-Kreislauf-System (Puls, Hochdruck, Elektrokardiogramm) ubedingt untersucht. Die Aufmerksamkeit der Sportler wird darum auf das Zustand des Herz-Kreislauf-Systems gelenkt. Sie versuchen die Meinung des untersuchenden Facharztes zu erfahren. Manchmal können sie über die Störungen der Herztätigkeit vom Trainer enfahren. Der Sportler beginnt verschiedene Gefühle im Herzensgebiet aufhorchen und ist von den möglichen Komplikationen beunruhigt. Bei Psyhoprophylaxe von Kardiophobien wurden die Sportler von der Grundlosigkeit ihrer Besorgnis überzeugt.

Vorstartreaktionen. Im diesem Zustand wurden Sportler hastig, zerstreut, sie haben oft vegetativvaskulare Störungen (Tachikardie, Dysfunktion des Magen - Darm - Kanals). Hat der Sportler im Tag des Wettkampfes solche Reaktion, muss der Psyhotherapeut 4-6 Stunden vor dem Start Ileterosuggession durchführen. Vorstartapathie ist auch eine Form der neurotischen Reaktionen der Sportler. Der Sportler zeichnet sich durch Depression, Trägheit aus. Diese Reaktionsform erscheint selten. Gibt es diese Reaktion, so wird Suggestionstherapie verwendet.

Die Arbeit in Prophylaxe der neurotischen Reaktionen muss man mit dem Erlernen der Persönlichkeit des Sportlers beginnen. Eine bedeutende Aufmerksamkeit muss dabei auf den Zustand der psychischen Vorbereitung der Sportler zum Wettkampf schenken.

9. DIE TIEFEN URSACHEN DER DROGENABHANGIGKEIT

Simanowskaja O. - die Studentin des 5. Studienjahres
Wissenschaftliche Leiter: Chekmarjow M.W; Kornewa O.A.

In meisten Fallen ist eine Drogenabhangigkeit eine standige Suche nach den Antworten auf die Fragen der Wirklichkeit durch den Übergang in eine andere Wirklichkeit. Und manchmal ist das sogar eine Flucht von

der Wirklichkeit, eine Suche nach der Freiheit in veränderten Bewusstsein. Das Problem Hegt darin, ob dieses veränderte Bewusstsein schöpferisch oder destruktiv ist. Es ist destruktiv, wenn der Weg in solchen Zustand mit -tein des Rauschgifts erreicht wird, aber das es kann auch schöpferisch sein, wenn man ganz bewußt diese „Reise" macht. Wenn dem so ist helfen die intensiven integrativen Psychotechnologien, Methoden der Transpersonalen Psychologie, wieso auch meditative, hypnotische und schamanische Techniken.

Dank integrativen, und, beziehungsweise transpersonalen Technologien kann man heute in den Methoden der Trancevertiefung ohne Medikamente üben. Man kann ganz einfach in den tiefsten Innern „reisen", diesen Zustand kontrollieren und verschiedene Probleme losen.

Die integrativen intensiven Psychotechnologien (die IIPT) sollen den Menschen helfen auf diesen Weg sich aufrecht zu halten, die Technologien der Transformation zu beherrschen. Die wichtigste Regel von den IIPT lautet: im Endstadium jedem negativen Programm liegen positive Vorsatze in Bezug auf dem Menschen zugrunde. Die IIPT lassen in kurzer Zeit die Probleme aus der kondensierten Erfahrung herauszuziehen und die zum positiven Formen zu transformieren, in deren man einen Verbündeten gewinnt. Wenn man mit den tiefen Ebenen von dem Unbewußte arbeitet, lernt man die Kartographie der Innerwelt und beginnt sich dort zurechtfinden. Man versteht die Kausalzusammenhang verschiedener Gemütsbewegungen und bekommt einer bestimmten Lebenserfahrung, die aus der Wechselwirkung mit dem Unterbewußtsein gezogen wird. Das Herangehen zur Transformation der negativen Programme ohne Behebung von Ursachen ist nicht effektiv, weil die wirkende Ursache einer Folgenbeseitigung neu schaffen kann.

Die IIPT (Rebirthing, Athemtherapie und kontextbedingte Trainings), die Atemtechniken für Trancevertiefung benutzen, sind heutzutage das effektivste Heilverfahren von Opiu-mabhangern.

Nach den Worten von Drogensuchtigen, die an dem Training des holotropen Atmens teil-genommen haben, sind die Tranceempfindungen den Empfindungen von Drogen nah. Aber zum Unterschied von Drogentrance sind diese Empfindungen ganz heilsam, obwohl man arbeiten muss, um sie zu erreichen. Auf solche Weise wird die tiefe Bedurfhisse des Menschen nach Trance befriedigt, die innere Ressourcen für die Bekämpfung der Abhängigkeit werden zu aktiver Tätigkeit angeregt. Die Menschen, die einen Hang zum Alkohol oder Drogen haben, benachrichtigen von intuitiven Verstandnissen, die ahnlich zu der Intuition der Patienten mit Suizididideen sind. Sie verstehen, dass sie nicht nach der Drogenabhangigkeit sondern nach Transzendenz strebten. Diese Unterschiebung ruht auf Ähn-

lichkeit in Wirkung des Alkohols und die Empfindung der Raumeinigkeit.

Die Empfindungen, die man bei Trainings erreichen kann, sind den mystischen und Daseinempfindungen nah. Mit Hilfe des Vertiefens befreit man von psychosomatischen Störungen, Aggression, und erreich die vollkommene Harmonie mit den Menschen und der Umwelt. Durch Integration wird die Persönlichkeit mehr denn je ganzheitlicher.

10. DER MENSCH DER ZUKUNFT

Mirsaew R-der Student des 2. Studenjahres
Wissenschaftliche Leiter: L.G . Sherepa; N.A Tkatschjowa .

Die mehrere Morphologe meinen, dass der Mensch heutzutage noch evolutioniert und es wird auch zukunftig gescshehen . Die Evolutionstheorie hat das Vorgangene der Phylogenese des Menschen und alle Richtlinien modernen Entwicklung erlernt . Diese Theorie stellt die Frage , ob die Beschleunigung dieses Prozesses moglich ist . Die Wissenchaftler bestatigen , dass im Korperstruktur des zukunftigen Menschen grosse Veranderungen geschehen werden. Die mehrere Zahne werden verkleinert oder ganz verschwunden .Das wird zur Schwachung des Kiefers fuhren . Wahrscheinlich wird der Mensch der zukunft von groben nahrung verzichlen .Er wird die synthetische Nahrungsmittel essen . Das Hirn wird sich vergrossert und das Gesicht wird ohne Nasen-,Tranenknochen , Interkieferbein sein . Das Gesicht verkleinert , der Schadel wird mit dem Atlas verschmelzen und zum Unterteil streben , Die Beckenknochen bewegen sich nach oben , Die Rippen verkleinern auch und Thorax wird kleiner , Wahrscheinlich wird die Zahl der Wirbeln etwa weniger und die Schlusselbeine verschwinden , Die Lebensgrosse wird ungefahr 50 cm. kleiner . Die Arme warden stark verandern Die Zahl von Phalangen wird weniger und bleiben nur 3 Finger . Das ist genug fur die Arbeit , die nicht starke Spannung efordert . Das Wandenbein wird wahrscheinlich ganz reduziert , Die mittlere und letzte Phalanges kleiner Zehe beim Menschen werden sehr off zusammenwachsen und kleine Zehe wird auch reduziert (nach Leche) . Die ausserung des zukunftigen Menschen ist fur uns ncht angenehm . Aber das ist nur Vermutung . Zur Zeit ist klar , dass die Evolution nicht nur naturgemass , sordern auch genetisch verwicklichen wird.

11. TELOMERASE.

O.Dubskaja., E.Pachorukova., A.Kostowa.-
Studentinen des 2. Studienjahres.
Wissnsechaftliche Leiter – Prof. E.A. Borodin, Prof. N.P. Krasavina, O.A.Kornewa.

Die Telomerase wurde von Kerol Graider in 1984 entdeckt. Doch wurde die Existenz des Mecnanismus,der kompensierten Verkurzung der Telomerase noch in 1973 vom sowjectischen Gelehrten Alexej Olovnikov vorausgesagt,uber den das Nobelkomitee nicht erwahnt. Auf solche Weise,wurden die Begriffe formuliert: Telomere (vom griechischen:"Das Ende" telos+der "Teil" meros) sind die Endbereiche der Chromosomen. Telomerbereiche der Chromosomen werden durch die Abwesenheit der Fahigkeit zur Verbindung mit anderen Chromosomen oder ihren Fragmente charakterisiert und erfullen die Schutzfunktion.Die Telomerase ist das Ferment, das die Reihenfolgen des DNS zum Ende der Kette auf den Telomerbereiche hinzugt. Als Ergebnis der Tatigkeit der Telomerase nimmt die Lange der Telomerbereiche der Zelhromosomen zu oder bleibt konstant,somit die Endunreplikation kompensierend und ermoglicht der Zelle unbegrenzt geteilt zu werden.Die Telomerase wird in Stamm -, Keim -und einigen anderen Typen der Zellen des Organismus expressiert. In 2009 wurde der Nobelpreis fur Physiologie und Medizin drei amerikanische Gelehrten zuerkannt, die das wichtige Problem losten: wie werden die Chromosomen bei der Zellteilung vollstandig kopiert,ohne die DNS auf ihre Ende verkurzt zu werden? Durch ihre Forschungen wurde es bekannt, dass "als Schutzhutchen" fur die Chromosomen die Telomere dienen. Elisabeth Blekbern in der Zusammenarbeit mit dem dritten Preistrager dieses Jahres- Kerol Graider, John Hopkins.

Die klinischen Vorstellunden.

Die Telomerase betrachtet man als den Schlussel zur "Zellunsterblichkeit", "die Quelle der Jugend". Dieses Ferment ermoglicht die Entstehung vieler Merkmale des fruhen Altern schreibt man der Telomerenreduziening zu.Das sind,zum Beispiel, Progerie,Ataxie-Teleangiektasie die Fankonie-Anamie, und andere. Die Gene,deren Mutation zu diesen Erkrankungen fuhren,sind in der Wiederherstellung des DNS eingesetzt.Ihre Teinahme an der Verwaltung der Telomerenlange wird aktiv untersucht.

Nach der Entdeckung der Telomerase zieht sie die erhohte Aufmerksamkeit der Forscher in Zusammenhang mit jener Rolle heran, die sie in den Prozessen der Entwicklung der Erkrankungen und des Alterns spielt. Die Aktivitat der Telomerase in Krebs - und nicht in den gesunden Zellen hat dazu gebracht, dass die Telomerase den Status der wichtigstmo-

lekularen Zielscheibe fur die Hersteller der Medikamente bekommen hat, doch erschwerten ihre Grosse und der komplizierte Bau die lange Zeit die Bestimmung ihrer Struktur.

12. GENDERSUNTERSCHIEDE

Winogradova E.-die Studentin des II. Studienjahres.
Wissenschaftliche Leiter: A.W.Wodopijan ; N.A.Tkatschjowa

In der Psychologie hat Gender sozialbiologishe Charakteristik, mit deren Hilfe geben die Menschen die Difinition " der Mann" und " die Frau" . Die Sozialpsychologe meinen, dass zwei Hauptursache normativer und informatorischer Druck sind. Der Begriff "normativer Druck" schildert den Mechanismus wie der Mensch zur Gesellschaftliche – und Gruppenewuartungen anstiff, um die Gescellschaft ihn nicht auszuschlagen wird. Die Bestrafung fur das Verzichten der Genderrolle zu folgen , kann hart sein. Ajatolla Gomeini, der Regent in Iran von 1979 bis 1980, hat alle Gesetze, die die Frauen einige Rechte geben, ausser Kraft gesetz und zum Tode 20000 Frauen verurteilt, die die Regel der Kleidung und des Verhaltens nicht beachten. Seit 3 Jahre haben die Kinder sich selbst zum mannlichen oder weiblichen Geschlecht zugeschrieben. Die Kinder bemerken, dass die Manner und Frauen anders aussehen, verschiedene Tatigkeit und Interesse haben. Als Kind bemerkt das, erhoht seine Interesse zur Menschen, die gleiches wie sie Geschlecht haben. Das bedingt den Wunsch, den besten Junge oder beste Madchen zu sein. Gewohnlich meinen die Psychologe, dass es 4 psychologischen Unterschiede zwischen Manner und Frauen gibt : die Fahigkeit sich im Raum zu orientieren, mathematische Fahigkeit , Sprechfertigkeiten , Aggressivitat. Man muss erinnern, dass diese Unterschiede nicht gross (etwa 10%) sind. Die Gefulsregung bei 2 Geschlechte ist gleich, aber durch Genderrolle haben die Manner und Frauen das verschiedenartig gezeigt. Die schwarzhautige Manner fuhren auf 40% den Haushalt, die weishautige Manner auf 34%, die spanische Manner auf 36%. Die Frauen und die Manner aus allen Lander erfullen verschiedene Arbeit, aber Arbeitsart ist nicht gleich . Die fuhrende Spezialiste in Landwirtschaft sind also im zentralen Afrika die Frauen, aber im Lateinamerika- die Manner. Wir sind nicht sicher darin, dass Genderunteirschiede biologisch motiviert sind. Auf unsere Genderolle wirkt von Geburt an grosse Zahl von ausseren Faktoren.

13. GERUCHE IN UNSEREM LEBEN.

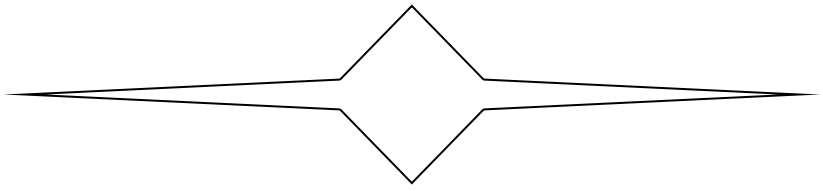
Jarowaja J. die Studentin des 5. Studienjahres.
Wissenschaftliche Leiter: Chekmarjow M.W., Kornewa O. A.

Die Welt der Gerüche gibt uns überall um, wir treffen mit ihr fortwahrend zusammen. Wir können sogar nicht vermuten, welche grosse Rolle der Geruchssinn in unserem Leben spielt. Die Gerüche helfen uns die Wirklichkeit der Welt zu verstehen. Erinnern Sie sich an die Redensart: „Es riecht hier nach keinem Elefanten". Der Geruchssinn, ebenso wie Geschmack, ist ein Sinn, der gleich mit dem Bewusstsein und dem Unbewusste verbunden ist. Es ist einfach zu erklaren: zuerst reagieren wir auf dem Geruch und dann verstehen wir, woran es liegt. Das macht die Gerüche zu den besonderen Werkzeug, das auf unseren Korper, unsere Gedanken und Emotionen wirkt. Auf diese Weise üben die Gerüche entwider einen negativen oder einen positiven Einfluss auf den Organismus, auf die Sinne, wie auch auf das Bewusstsein.

Die Geschichte der Aromatherapie (die Lehre von den Gerüchen und dem Einfluss auf den- Organismus) wird lange Zeit erlernt. Die Alten benutzten die Wohlgeruche und wohlriechende Graser in Ritualien und Heilverfahren. Die Ägypter und, spater, die Romer und die Griechen schätzten die Wohlgeruche ebenso wie Gold, Silber und Gewürze, hielten sie als Symbol des Reichtums und schenkten sie als Sachwerte. Der chinesische Arzt und Philosoph Wan Weh schrieb seinem Schuler: „Die Aromen wirken auf dich bereinigend und wiederherstellend, starken deine Kräfte, fulen deine Gedanken mit der Seelenruhe und Seelenfrieden". Im Mittelalter wurden Aromastoffe sogar für Pestbekampfung benutzt. Besonders wirksam war Kiefer: grosse Scheiterhaufen aus Kiefer gaben einen beiss enden Rauch, der sogar Bakterien ausrotten konnte. Ein berühmter Mediziner Parasels nutzte die Gerüche für das Heilverfahren von verschiedenen geistigen und körperlichen Störungen aus. Aromatherapie ist eine der populärsten und schnell entwickelten Richtungen der alternativen Medizin. Sie ist unschädlich und leicht zu verwenden. Im Ausland werden, zahlreiche Zeitschriften zu diesem Thema veröffentlicht und funktionieren Wissenschaftsinstitute, die sich mit der Aromatherapie beschäftigen. Moderne Zivilisation macht es für die Menschen unmöglich, mit der Natur taglich im Kontakt zu stehen, und der Umwelt ist mit den Schadstoffen gesattigt. Die Wohnverhaltnisse des modernen Lebens, die Eile und der chronische Stress bringen zu den körperlichen, emotionalen und Geisteskrankheiten. Aromatherapie, wie auch andere Richtungen der Medizin, ist ein Versuch, diesen Prozess zu verlangsamen. Sie normalisiert psychischen Zustand, verbessert den Blut- und Lymphkreislaut, bringt alle Prozessen im Organismus ins Gleichgewicht und, auf solche Weise, fuhrt

dazu, dass der Organismus sich gegen Immissionen stemmt.

Als Hauptmittel der Aromatherapie gelten Aromastabchen und Aromaole, manchmal kann man auch auf „Plastilinwohlgeruche" aus Butterschmalz und Honig und streubare Wohlgeruche stossen.



SECTION du FRANCAIS et du LATIN

1. "EGO SUM" A LA TRIADE "NATURE - CONSCIENCE - HOMME"

A.Boroieva - et-te de la 2-me année.

Les dirigeants scientifiques - prof. E. N. Gordiienko, S.I. Nazarkina.

Nous éprouvons les difficultés objectives substantielle a la connaissance et les besoins qu'il faut surmonter, étant plonge au monde des sciences médicales. Nos problèmes donnent la naissance aux propriétés objectives et subjectives. L'organisation de la science qui existe pendant toute la civilisation y compris la science médicale, exigeait la condition logique standardise rigide a la connaissance dominante de l'homme. Cependant notre contact a la science, la pénétration a la science au niveau instructif, donne la naissance l'exigence qui forme Tordre de l'intelligence complète 'Tordre du coeur". Le philosophe Solovjov écrivait: "Les courants des principes universels élargis graduellement passent a travers toute l'histoire, ils unifient la pensée et la vie de "l'humanité".

Dans nos recherches nous tentons humaniser la science etidiee, s'approcher de la science, a ces problèmes. Nous nous occupons des recherches des réponses aux questions essentielles qui agitent de mille ans. "Qui es-tu, d'où es-tu sorti, ou vas-tu auprès de qui dois-tu tenir la réponse a tes actions" (Paracelse). Nos compagnons dans ces recherches en réponses et en questions principales étaient les Grands: Leonardo de Vinci, Pierre Teillard de Chardin,V. Gete, Renés de Carte, I. Veresaev, N. Sabolotsky, I. Mandelchtam, M. Volochine, S. Ecenine et d'autres, et la poésie épique et la poesie-meme du people ancient et contemporaine de la Bouriatie.

Pour nous la lecture de ces Grands en heures rares du loisir s'est transformée a notre adhésion avec les auteurs chez les problèmes de la vie et le rationnel de leur connaissance. Nous sommes pour la clairvoyance au contact avec les principes de la vie, pour la compréhension en réponses aux questions au triptique philosophique: "Nature - Conscience - Homme". Nout cela présente la vente absolute. Il faut la suivre, mais il ne faut pas la repeter, mais il faut l'ouvrir par la connaissance avec l'aide des Grands.

Chaque jour, c'est notre expérience. Nous venons dans ce monde avec un grand fonds d'érudition, qui nous permettent de connaître, sentir, evalluer le monde, dans lequel nous avons pénètre. Des premiers jours nous commençons notre étude, chaque action (raisonable ou deraisonable), c'est toujours notre 4experience. Nous venons dans ce monde avec l'intellect "clair" et avec le coeur, qui norissent tout ce qui passé autour de nous des premier jour de notre existence.

"Nous avons reçu des nos parents un grand don précieux, c'est la vie. Ils nous avons allate et nous avons grandit sans ménager ses forces, un amour".

«От родителей мы получили величайший и бесценный дар - жизнь. Они вскормили и вырастили нас, не желея ни сил, ни любви». Леонардо да Винчи.

2. DERMATOGLYPHIQUE.

A. Bezik - et-te de la 2 année.
Les dirigeants scientifiques - T. A. Ogorodnikova,
S. I. Nazarkina.

La peau présente un tégument du corps. C'est un organe complexe. Cet organe est lie étroitement avec les viscères. La peau constitue environ de 20% de la masse de l'homme. La superficie de la peau présente 2,5 m carre. Les fonctions de la peau: la function protecteuse (de barrière). La peau prend part activement a l'approvisionnement de la balance normale d'eau.La peau prend part a la régulation thermique.La function excreteuse de la peau.La peau est un dépôt du sang. La peau prend part a l'échange des vitamins. La peau prend part au métabolisme des hormones nombreuses. La peau prend part au processus immuns.La peau est un champ vaste de récepteurs. La peau se compose de trois couches: epiderme, derme, hypoderme. La structure de l'epiderme.L'epiderme est présente par quelques couches des cellules: basai, épine, granule, éclatant et corne. L'epiderme, c'est un système des cellules, constamment renouvelées, ou passe la differentialite spécifique. L'organisation de structure de l'epiderme de la peau épaisse est une présence des crêtes papillaires et des sillons cutanés, qui forme le dessin spécifique sur la superficie de la peau. En epiderme on distingue quelques types des cellules: keratinocytes, melanocytes, cellules de Languergances, cellules de Merkels. La keratinisation, c'est une function essentielle des keratinocytes, mais elle n'est pas unique. Les keratinocytes comme les cellules reticulo-epitheliales du thymus, synthétisent les substances du type tymosine et tymopoetine.Les melanocytes constituent 10 - 25% des cellules de la couche basale. Les cellules polyrejetonees avec la présence des structures particulières, les melanosomes, ou les mélanines synthétisent. La présence des melanosomes favorise a la rétention de la quantité nécessaire du rayonnement ultraviolet pour la synthèse des vitamins D d'une part; et d'autre part, le mélanine défend les tissus propres de l'action du rayonnement ultraviolet.Les cellules de Merkels étaient décrites pour la première fois en 1875 a l'epiderme du museau d'une taupe.

Les cellules de Merkels prennent part a la régulation de la régénération de l'epiderme et des fibres nerveuses, situées dans la couche papillaire. L'action paracrine des cellules de Merkels se manifeste au dégagement de la histamine par les cellules obèses. Ces cellules ont rapport au APUD-systeme.Les cellules de Languergances constituent environ de 3% de toutes les cellules de Lepiderme. Elles sont situées dans la couche d'épine de l'epiderme. Elles sont contrôleurs originals de la cinétique des keratinocytes qui accumulent des chalones, Ladrenalin et Linterferon. Les cellules de Languergances prennent part au processus de la keratinisation, dans les reactions immunes. Elles jouent le role-clef a la reaction de la hypersensibilité de contact de la peau (les dermatitis de contacts allergiques). Elles jouent encore le rôle important dans la défense contre les tumeurs de la peau. Le derme (ou la peau propre). Le derme situe sous la membrane basale de l'epiderme, constitue environ de 15 - 20% de la masse totale du corps. Le derme est présente par deux couches:la couche papillaire, c'est un tissue conjonctif fibreux, qui fait advancer a titre des papilles a l'epiderme; l'epiderme, en repentant les contours de ces papilles, forme génétiquement les crêtes papillaires, visibles sur la superficie de la peau;Ia couche reticulaire, qui est formée par le tissu conjonctif fibreux compact dans lequel les fibres élastiques collagenes épaisses forment le reseau qui est caractérise pour la région détermine du corps. Le dessin de leur orientation donne le début des lignes bien exprimées de Languers. Le derme sans limite tranchante se transforme a *Y* hypoderme constituent des fibres collagenes et élastiques, qui forment le reseau en noeuds. Ces noeuds sont combles par le tissu conjonctif friable. Entre ces fibres il y a beaucoup de cellules adipeuses. Ces dernières sont groupées en lobules adipeux. Les grandes agglomérations de ces cellules forment les dépôts adipeux. Le mot "dermatoglyphique" provient de deux mots: "derma" signifie "la peau" et "glyphe" ce que signifie "graver".

3. SYSTEME CARDIO-VASCULAIRE.

K. Konkina, A. Boroieva - et-tes de la 2-me année.
Les dirigeants scientifiques - J. V. Saiapina, S. I. Nazarkina.

Coeur. Le coeur, c'est un organe musculaire qui par sa contraction rythmique assure la progression du sang a l'intérieur des vaisseaux. Le tissu musculaire du coeur est présente par les cellules particulières. Ce sont les cardiomyocytes. Comme a n'importe quel organe tubuleux, on souligne a la paroi du coeur les couches suivantes: la couche interne (endocarde), la couche moyenne (myocarde), la couche externr (epicarde).

La structure du coeur.L'endocarde (Endocardium). La couche

interne du coeur couvre les muscles papillaires, les fils tendineux et les valvules du coeur de l'intérieur de la chambre du coeur. L'alimentation de l'endocarde se realise diffusivement pour le compte du sang, qui se trouve dans les chambres du coeur.Le myocarde.(Myocardium). C'est une enveloppe musculaire du coeur, qui se compose de cellules musculaires transversairo-rayees. Ce sont les cardiomyocytes. Les cardiomyocytes sont liées étroitement entre eux et forment les fibres fonctionnelles, dont les couches entourent spiralement des chambres du coeur. Les couches intermédiaires du tissu conjonctif, friable, les vaisseaux et les nerfs sont disposes entre les cardiomyocytes. On distingue les cardiomyocytes de trois types: les myocytes cardiaques contractifs ou les ouvriers; les myocytes cardiaques conduits ou apathiques, qui entrent en compose du système conduit du coeur; les cardiomyocytes endocriniens ou secretoires.Les cardiomyocytes contractifs forment une partie essentielle du myocarde. Les cardiomyocytes sont couverts de sarcolemme, composant du plasmalemme et de la membrane basale, qui prend part a la nouvelle repartition des ions Ca2+ au cycle de la contraction, c'est la faiblesse. Les cardiomyocytes des ventricules sont pénètres considérablement d'une manière intense par les canalicules de T- système, que les fibres musculaires somatiques. Un tissu conjonctif interstitiel se trouve entre les cardiomyocytes. L'epicarde. C'est une couche externe. On l'appelle encore la chemise du coeur. En dehors le coeur est situe dans le sac, c'est le sac paracardiaque, le péricarde.

4. LES PARTICULARITES DE LA CARDIORYTHMOGRAPHIE CHEZ LES MALADES AVEC LA DYSTONIE NEUROCIRCULATOIRE ET DE LA MALADIE HYPERTONIQUE PENDANT L'EPREUVE AVEC LA RESPIRATION DIRIGEE.

Barabach E.-et-te de la 3-me année.
Dirigeants scientifique-ass. De prof. OJ. Lakotsenina, L.I.Chpiltchouk.

La cardiorythmographie est étroitement liée avec l'electrocardiographie, c,est la méthode de l'étude du rythme cardiaque, a la base de laquelle est la transformation de la longueur des intervalles R-R en amplitude avec l'utilisation de l'analyse mathématique. La CRG permetétudier les particularités, les régularités du rythme cardiaque, évéler les arythmies, contrôler le traitement, faire la conclusion de la prédominance de la section sympathique ou parasympathique du système neuro-vegetatif en régulation du rythme sinusal. Le but de ce travail était

l'évaluation de la reaction de l'organisme en la tonicité de la section parasympathique du système neuro-vegetatif a l'exécution dirigée chez les malades avec la dystonie neurocirculatoire et avec la maladie hypertonique. 37 malades en âge de 18 a 50 ans étaient examine et parmi eux 25 malades avec la dystonie neurocirculatoire, 9 - avec la maladie hypertonique du I degré, 3-avec la maladie hypertonique du II degré. L'épreuve était passé en trios étapes a l'aide du système diagnostique de médecine "Valenta". Les résultats chez 9 malades avec la maladie hypertonique du I degre,qu'atteste de l'intégrité du mécanisme de la dépression pendant le chargement. Chez 23 malades avec la dystonie neurocirculatoire était la reaction paradoxale du système neuro-vegetatif (la conservation ou l'aggravation du statu sympathique en 2-me étape de l'épreuve ou l'abaissement de l'influence parasympathique), que confirme le diagnostic de la dystonie neurocirculatoire. La reaction normale du système neurovegetatif en épreuve chez 2 malades avec la dystonie neurocirculatoire a exige de l'examen complémentaire pour la précision de la genèse de la hypertension artérielle. La reaction paradoxale était chez 3 malades avec la maladie hypertonique du II degré. L'altération du rythme cardiaque chez les malades n'était pas révélée. Pendant des épreuves les complications n'étaient pas montrées.

5. СЛОВА И ВЫРАЖЕНИЯ АНТИЧНОГО ПРОИСХОЖДЕНИЯ В РУССКОМ ЯЗЫКЕ И МЕДИЦИНСКОЙ ТЕРМИНОЛОГИИ.

О. Болдырева, Н. Варда, Ю. Гусейнова, Н. Войлошникова - ст -ты 1 курса.

Научные руководители: Л.И. Шпильчук, СИ. Назаркина, Н.А. Субачева, Н.А. Ткачева.

Культура Древней Греции и Древнего Рима оказала огромное влияние на последующие цивилизации. В последние годы вновь вспыхнул интерес к истории и культуре античного мира. Открываются школы и гимназии, в учебные программы которых, входит изучение латинского и древнегреческого языка, читаются лекции по античной литературе. Естественным представляется использование гуманитарного материала и в курсе медицинской латыни. Профессия врача, объектом которой является "Ьото зар1епз", обязывает слуг Гиппократа обладать «аг1е е* питание". Гуманность включает в себя не только человечность и сострадание, но и определенный уровень культуры, интеллекта и образования. Знание персонажей античной мифологии, сюжетов литературы, эпизодов истории древних римлян

и греков помогает нам понять смысл не только медицинских терминов (ахиллово сухожилие, кесарево сечение и др.), но и других слов и выражений (гордиев узел, сизифов труд и др.), которые мы часто слышим и видим.Таким образом и античный мир может быть родным и близким, а страдания троянской царицы могут растрогать до слез.

6. INVIA EST IN MEDICINA VIA SINE LINGUA LATINA: НЕТ ПУТИ В МЕДИЦИНЕ БЕЗ ЛАТИНСКОГО ЯЗЫКА

Никифорович А. – студентка 1 курс
Научный руководитель: Назаркина С. И.

Латинский язык – научный язык всех медиков мира. Клятва Гиппократа – краткое изложение нравственных правил, которые были выработаны в Медицинской школе Гиппократа и которыми руководствуются медики уже две с половиной тысячи лет. По мнению Гиппократа, врач должен был в течение болезни постоянно наблюдать больного, которому предписывалось, пока он болен, лежать и принимать лекарства. Так была основана клиническая медицина.

Король Сицилии и германский император Фридрих 11 присвоил Салернской школе право выдавать диплом врача. Без этой лицензии никто в Германской империи не мог заниматься лечебной практикой. Обучение в школе длилось 5 лет и завершалось годичной практикой.

Выдающиеся люди сформировавшие научно – естественную терминологию: Клавдий Гален, Константин Африканский, Корнелий Цельс и др. В формировании русской научной – естественной терминологии огромная заслуга принадлежит Ломоносову, написавшему множество трудов на латинском языке. На латыни писали великий русский хирург А. И. Пирогов, известный фармаколог И. Е. Дядьковский и многие другие ученые России.

И сегодня медиков, давших клятву Гиппократа, объединяет латинский язык, на котором пишутся научные труды, читаются лекции и прописываются.

7. ИСТОРИЯ ПРОИСХОЖДЕНИЯ НАЗВАНИЯ ХИМИЧЕСКИХ ЭЛЕМЕНТОВ

Дарчиева А.А, Кушнарев В.А студенты 1 курса
Научный руководитель: Назаркина С.И

Знание химической терминологии, умение толковать термины и названия не только с точки зрения энциклопедической, но и с

точки зрения их этимологии, способствует более осознанному овладению химическими понятиями и законами.

Синтон, отравит, прохиральный центр… В химических текстах можно встретить множество терминов, понятных только узким специалистам. Но есть слова, известные каждому грамотному человеку: названия элементов, многих веществ и методов их обработки. Некоторые из этих названий придуманы недавно, другие имеют тысячелетнюю историю.

В таблице Менделеева, принятой у нас, приводятся русские названия элементов. У подавляющего числа элементов они фонетически близки к латинским: аргон — argon, барий — barium, кадмий — cadmium и т.д.

Человек первоначально пользовался пиктографическими изображениями, которые затем претерпели метаморфозу в изображения иероглифические и, в конце концов, абстрагировались до знаково -буквенных изображений.

Названия большинства химических веществ давались на основе происхождения этого вещества, приготовления или использования соединения, которые чаще всего были случайными. Такие названия относятся к тривиальным [фр. Trivial < лат. trivialis обыкновенный]. До конца XVIII в. химики пользовались названиями веществ, возникшими в отдаленные времена, большей частью случайно, по предложению ремесленников, алхимиков, врачей.

Современная номенклатура пестрит всеми эпохами. Рассмотрим формирование название химических элементов в нашей работе

Золото.С древнейших времен блеск золота сопоставлялся с блеском солнца (sol). Слово gold в европейских языках связано с греческим богом Солнца Гелиосом. Латинское aurum означает „жёлтое“ и родственно с „Авророй“ (Aurora) — утренней зарёй.

Серебро. По-гречески серебро — „аргирос“, от „аргос“ — белый, блистающий, сверкающий (индоевропейский корень „арг“ — пылать, быть светлым). Отсюда — argentum. Интересно, что единственная страна, названная по химическому элементу (а не наоборот), — это Аргентина.

Ртуть. Латинское hydrargirum произошло от греческих слов „хюдор“ — вода и „аргирос“ — серебро. „Жидким“ (или „живым“, „быстрым“) серебром ртуть называется также в немецком (Quecksilber) и в староанглийском (quicksilver) языках.

Углерод. Международное название происходит от латинского carbo — уголь, связанного с древним корнем kar — огонь. Этот же

корень в латинском cremare — гореть.

Сурьма. Латинское название элемента (stibium) происходит от греческого „стиби“ — косметического средства для подведения глаз и лечения глазных болезней

Кремний. Русское название элемента, данное ему Г.И. Гессом в 1831 году, произошло от старославянского слова „кремень“ — твёрдый камень. Таково же происхождение латинского silicium (и международного „силикат“): silex — камень, булыжник, а также утёс, скала.

8. МИФОЛОГИЧЕКИЕ И БИБЛЕЙСКИЕ МОТИВЫ В НАЗВАНИЯХ ЛЕКАРСТВЕННЫХ РАСТЕНИЙ

Карацуба С. – студентка 1 курса
Научный руководитель – зав. кафедрой доц. Л. И. Шпильчук

Цветы разводят с глубокой древности и они играли важную роль в жизни всех народов. С ними связано множество красивых историй. Каждый цветок имел свою историю, а очень древняя история превращалась в легенду.

В древности цветы не только радовали человека, но и помогали им в целительности, охраняли от сглаза, служили для украшения алтарей и жертвоприношений и многое другое.

9. ИСТОРИЯ ЗУБОВРАЧЕВАНИЯ В ДРЕВНЕМ МИРЕ.

Симачёва Е.А – 1к..
Научный руководитель: Ткачёва Н.А.

Стоматология (dentistry)- область науки, занимающаяся изучением и лечением заболеваний полости рта, челюстей, зубов и окружающих их тканей.

Зубоврачевание-лечение зубных болезней.

зубы -твердые образования в области рта у животных и человека, используемые главным образом для первичной механической обработки пищи, но также и для поимки добычи, поиска пищи, демонстрации угрозы, нападения, защиты и других целей.

Кариес (caries)- гниение. Кариозный процесс, т.е. процесс разрушения структуры зуба в виде поражения зубных тканей, обусловленную как факторами внешней, так и внутренней среды организма.

Абразия - это механическое истирание зуба твердыми ино-

родными телами.

Пломба-(restoration) - (в стоматологии) любой вид зубных пломб или коронок, которые предназначены для придания зубу нормальной формы, внешнего вида и обеспечения его нормального функционирования .

Зубная боль — неприятные, а часто нестерпимые ощущения, вызванные раздражением чувствительных нервов.

Кариес зубов— патологический процесс, связанный с кислотным разрушением — деминерализацией — твердых тканей зуба (эмали и дентина), приводящий к образованию в них дефекта в виде полости и к воспалительным осложнениям со стороны пульпы и периодонта (при отсутствии лечения).

Бормашина-(ножная - электрическая или турбинная), приводит во вращательное движение бор - режущий инструмент для препарирования твердых тканей зуба.

10. РИМСКИЙ КАЛЕНДАРЬ

Палий А.-I курс

Руководитель – Назаркина С.И.

В древнейшие времена римский (или Ромулов) год делился на 10 месяцев. К VI веку был принят новый календарь, включающий 12 месяцев. В середине I до н.э. римский император Гай Юлий Цезарь под влиянием математиков и астрономов внес в римский календарь изменения, которые сформировали знакомую систему летоисчисления. Измененный Цезарем календарь был назван в его честь «юлианским». 365,25 дней в году, и что такое «високосный» год. Названия месяцев римского календаря сохранились и по нынешний день. Числа месяца определялись не привычным для нас перечислением, а по фазам луны, а дни недели обозначались по названиям планет. Римляне также не имели фиксированной системы измерения суток.

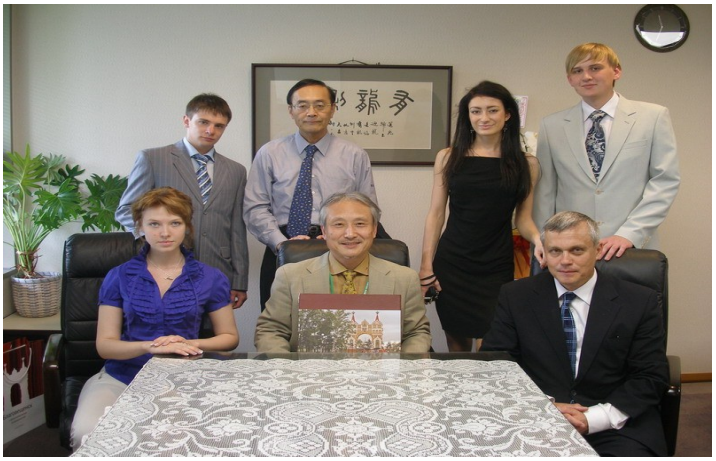
Курсы для студентов АГМА в медицинском университете г. Осака, июль 2009год.

Согласно договора о побратимских отношениях между АГМА и медицинским университетом г. Осака прошедшим летом состоялся очередной визит делегации наших студентов в Японию. Это был уже четвертый визит наших студентов в Осаку. Для меня же нынешний визит в Японию был девятым. Наша делегация включала четыре студента – выпускника АГМА 2009г. Александра Агаркова, студентов 4 курса Дмитрия Курченко, Веронику Пушкареву и студентку 3 курса Дарью Вихреву.

Посещение Японии состоялось в период 3-17 июля. Добирались в Осаку мы как всегда через Хабаровск и Ниигату. В аэропорту Итами нас встречали побывавшие у нас ранее японские студенты, преподаватели Ясунори Ариоши и Хироясу Шимизу,, ,профессора Коичи Коно и Масаши Шимахара а также директор фонда Японо-

Российского медицинского обмена г-н Казайоши Огава и сотрудник Фонда г-жа Куми Ямао.

Поскольку мы прибыли в Японию в пятницу выходные дни были заполнены культурной программой, а именно экскурсиями по Киото и Осаке. С понедельника началась учебная программа. Наших студентов познакомили с университетом. Нас принял новый президент университета зав. каф. оториноларингологии , профессор Такенака. В этот раз вместе с нами университет посещали американские студенты из Гавайского университета, что предоставило нашим студентам блестящую возможность общения не только с японскими, но и с американскими коллегами. Само собой разумеется, что все общение было на английском языке, и английских наших студентов резко прогрессировал. По традиции мы нанесли визит вежливости в мэрию Такатсуки-сити. Мэр г-н Тсутому Окумото, по видимому, хорошо справляется со своими обязанностями, поэтому бессменно занимает пост мэра, как минимум с 2003г. Мэр остался очень доволен нашим подарком – сувенирным набором с красочным альбомом о нашем городе и триумфальной аркой, выпушенном к 150-летнему юбилею Благовещенска.



В этот раз японские друзья приготовили насыщенную клиническую программу и наши ребята присутствовали на операциях в отделении челюстно-лицевой хирургии и кардиохирургии, при родах.

Традиционно состоялся международный студенческий научный симпозиум «Жизнь и учеба студентов в разных странах, в котором наряду с нашими и японскими студентами участвовали очно и заочно (прислав видеопрезентации) студенты из США, Великобритании, Египта, Китая и Таиланда.

Не сомневаюсь, что ребята навсегда сохранят в памяти свой визит в Японию, который значительно расширил их кругозор и стал хорошим стимулом к дальнейшему образованию. Очень хорошо, что у наших студентов есть подобная возможность. Не многие вузы сохранили связи с японскими университетами. Президент университета г. Осака проявил заинтересованность посетить нас и подписать новый договор о продолжении сотрудничества.

Зав.кафедрой. биохимии АГМА, проф.
Е.А.Бородин.

Оглавление

Section of the English Language—*6*

THE PRESENTATION OF KYOTO CITY
Ohya N. – the 4th-year student—6
HAVE YOU TRIED JAPANESE ALCOHOL?
Nakano K – the 4th-year student– 6
THE SEASONS IN OSAKA
Fukumoto M – the 5th-year student—6
NANOTECHNOLOGIES IN MEDICINE.
Skolubovich A.–the 4-th year student—6
ULTRAPHONOPHOREZ WITH "DOLGIT"- CREME IN TREATMENT OF OSTEOARTROSIS AND RHEUMATIC ARTRITIS.
Dobrovolskaya D—7
AGE CHANGES OF A SKIN.
Orlov I—8
SUMMER CLASSES FOR STUDENTS OF THE AMUR STATE MEDICAL ACADEMY IN THE OSAKA MEDICAL COLLEGE.
Vikhreva D—10
THE STRUCTURE OF THE ARTERIAL CHANNEL OF UTERUS OF A WHITE RAT.
Nuriyev E. C—11
SUICIDE AND MENTAL ILLNESS.
Bova E—11
EMOTIONALLY-PERSONAL AND COGNITIVE DISTURBANCES IN PATIENTS WITH DISSEMINATED SCLEROSIS
Konkova D.—13
THE USE OF DENAS-THERAPY IN THE TREATMENT OF CHILDREN WHITH ACCOMMODATION SPASM
Gosteva A—14
THE POSSIBILITIES OF T SUBSTITUTIVE METHODS OF SURGICAL PATIENTS TREATMEN
Kurchenko D.—15
PHENOMENON OF INTRANARCOTIC AWAKENING.
Dimova M.—16
MY IMPRESSIONS OF SEPTEMBER SCHOOL-CONFERENCE IN VLADIVOSTOK.
Piskun M.—17

USING DIHYDROQUERCETIN IN THE TREATMENT OF CHRONIC TONSILLITIS.
Blotsky R.—18
MORPHO-FUNCTIOUNAL CHARACTERISTICS OF LIMBIC SYSTEM.
Gordienko U., Kiyashko A., Nabiev A—20
MUITIPLE SCLEROSIS
Kopotaeva D.—20
ECG DISPERTION-MAPPING IN PAATIENTS WITH ISHERMIC HEART DISEASE.
Tsyganchuk A.—22
THE CLINICAL PECULIARITIS OF THE PRIMARY DIAGNOSED DIABETES MELLITUS.
Shamina O.—23
APPLICATION OF PHYTOPREPARATIONS FOR THE CORRECTION OF THE PROCESSES OF LIPID PEROXIDATION OF BIOMEMBRANES INDUCED BY ULTRAVIOLET IRRADIATION
Nurieva Y.—24
EFFICIENCY OF ANTIBACTERIAL THERAPY IN DYSPEPTIC PATIENS AFTER CHOLECYSTECTOMY.
Myasnikova R.—26
SMALL INTESTINAL BACTERIAL OVERGROWTH IN CIRRHOSIS WITH HYPERTENSIVE DUODENOPATHY.
Myasnikova R.—26
THE SEED THERAPY
Shchastlivets Zh., Yakovenko M.—27
DIAGNOSTICS OF EMPHYSEMA AND PULMONARY HYPERTENSION IN PATIENTS WITH PNEUMOCONIOSIS
Bardov V.—28
THE ESTIMATION OF THE PHYSICAL DEVELOPMENT OF THE STUDENTS (MALE AND FEMALE) OF THE FIRST YEAR OF STUDIES OF THE AMURE STATE MEDICAL ACADEMY ACCORDING TO THE ANTHROPOMETRICAL DATA.
Nevedomskaya N.—31
CIRRHOSIS OF THE LIVER.
Saveleva T., Titova V.—32
THE ROLE OF PSYCHOEMOTIONAL FACTORS IN COMING OF SUDDEN DEATH FROM ISCHEMIC HEART DISEASE.

Kostin I.—33
CORNEAL HISTOLOGICAL FEATURES AND CORNEAL DISEASES
Dukhovny E., Zhdanova R. ., Oliferov D.—34
FUNDAMENTALS OF ERYTHEMA MIGRANS CHRONICUM
Dukhovny E. ., Zhdanova R.—35
OVERVIEW OF SURGICAL TREATMENT OF PITUITARY TUMORS
Dukhovny E.—36
THYROID CANCER: MORPHOLOGIC, CLINICAL ASPECTS AND SURGICAL TREATMENT
Dukhovny E., Zhdanova R.—37
STEREOTACTIC AND ULTRASOUND-GUIDED VACUUM-ASSISTED BIOPSY IN DIAGNOSTIC OF BREAST CANCER
Dukhovny E.—37
STOMACH CANCER
Zhdanova R., Dukhovny E., Detusheva O.—38
CHRONOBIOLOGICAL APPROACH TO THE RESEARCH OF THE FUNCTION OF EXTERNAL RESPIRATION IN PATIENTS WITH CHRONIC OBSTRUCTIVE LUNG DISEASE.
Bezzubtceva V.—39
PECULIARITIES OF THE DURATION OF ISCHEMIC HEART DISEASE IN PATIENTS WITH TIPE II DIABETES MELLITUS.
Yuryev. E.—42
THE ROLE OF OBESE CELLS IN ALLERGIC REACTIONS
Legchikova Ya., Sokolova G.—43
PRETUMORAL DISHORMONAL DISEASE OF THE MAM-MARY GLAND.
Yershueva N., Dyomina K.—44
CARDIAC RHYTHM DISORDERS IN PATIENTS WITH CHRONIC OBSTRUCTIVE LUNG DISEASE.
Dyomina K. A.—44
ARGININ - PARTICIPATION IN METABOLISM AND CON-TROL OF VITAL FUNCTIONS
Zotova G.—45
CENTRAL. NERVOUS SYSTEM AND ACTION OF DRUGS ON IT
Shevchenko *E.,* Tarasov A.—46

KARL LANDSTEINER- AN OUTSTANDING IMMUNOLOGIC OF THE XX CENTURY
Savchenko D.—49
PECULIARITIES OF SWINE FLU OF TYPE A (H1N1)
Pachganova E.—50
HISTORY OF SCIENTIFIC ANATOMY IN ANCIENT GREECE.
Sokolova G., Anikina O., Sokolenko L.—51
PHENYLKETONURIA
Sokolova G, Anikina O, Sokolenko L.—52
VARIATUVE ANATOMY OF THE MARGIN AND FORM OF ANTERIL WALL OF EPIDURAL AREA.
Bondar' O., Taburyanskaya M.—53
TREATMENT OF THE SYNDROME OF A DIABETIC FOOT
Pushkareva V., Pereverzev D., Babenko A.—54
MINIINVASIVE SURGERY IN VARICOSE DISEASE TREATMENT
Porohova E.—55
ANOMALIES OF BEARING
Sryvalkin M.—56
THE ANALYSIS OF LUPUS ERYTHEMATODES MORBIDITY AND SCLERODERMIA IN THE AMUR REGION FOR THE LAST 3 YEARS (2006-2008)
Shcherbina E., Shikuro Ya.—57
INNOVATIONS
Korotkikh A.—59
THE NOBEL PRIZE 2009 IN CHEMISTRY FOR THE STUDY OF RIBOSOMES
Kovalyova A., Kozhevnikova N.—59
ALLERGIC REACTIONS
Legchikova Ya., Sokolova G.—60
MEMORY. WHAT IS IT?
Razdobudko M.—61
ANOREXIA IS A SOCIAL PROBLEM OF THE MODERN WORLD
Kilimichenko K.—62
THE INFLUENCE OF DIHYDROQUERCITOL ON CLINICAL AND PATOGENESIS COURSE OF VULGAR PSORIASIS
Kolesova M., Khohlova E.—63

BREATH TEST FOR DIFFERENTIAL DIAGNOSIS BETWEEN SMALL INTESTINAL BACTIRIAL OVERGROWTH AND IRRITABLE BOWEL DISEASE
Kolesova M., Khoclova E.—64
PARKINSON'S DISEASE
Karpanin V.—65
DIABETES MELLITUS. CHANGES OF A1 HEMOGLOBIN.
Skolubovich A.—67
FOOD SECURITY
Sheludko E.—67
IMPLEMENTATION OF THE MOST IMPORTANT PROBLEMS OF ANATOMY XX CENTURY
Zatsepilina E., Echkina O.—68
THE USE OF RECOMBINANT ERYTHROPOIETINS FOR TREATMENT OF ANEMIA IN PATIENTS WITH HEMOBLASTOSES.
Somova A.—70

DEUTSCHE ABTEILUNG — *71*

DIE ARTEN VON BRUSTDRUSEN GESCHWUL
Bossauer W.—72
DAS EXTRAPYRAMIDSYSTEM
Irbetkina A.—72
DIE FUNKTIONELLE ASYMMETRIE DER GEHIRN-HALBKUGEL
Tschurin W.—73
DIE GESCHICHTE DER ENTSTEHUNG DER MEDIZINISCHEN SYMBOLIK.
Fateewa M.—74
ANTIOXYDANZIEN.
T. Ignatenko—74
DIE EINSCHÄTZUNG DER PHARMAKOOKONOMISCHEN EFFEKTIVITET DER HYPOTENSIONSTHERAPIE DEN KRANKEN MIT DER HOCHDRUCKKRANKHEIT.
E. Nikischina—75
BESONDERHEITEN DES MELANOMS.
S.Rsaewa—76

NEUROTISCHEN REAKTIONEN BEI DEN SPORTLERN.
E.Pendjurowa—77
DIE TIEFEN URSACHEN DER DROGENABHANGIGKEIT
Simanowskaja O.—78
DER MENSCH DER ZUKUNFT
Mirsaew R.—80
TELOMERASE.
O.Dubskaja—81
GENDERSUNTERSCHIEDE
Winogradova E.—82
GERUCHE IN UNSEREM LEBEN.
Jarowaja J.—83

SECTION du FRANCAIS et du LATIN—*84*

1. "EGO SUM" A LA TRIADE "NATURE - CONSCIENCE - HOMME"
A.Boroieva—86
2. DERMATOGLYPHIQUE.
A. Bezik—87
3. SYSTEME CARDIO-VASCULAIRE.
K. Konkina, A. Boroieva—88
4. LES PARTICULARITES DE LA CARDIORYTHMOGRAPHIE CHEZ LES MALADES AVEC LA DYSTONIE NEUROCIRCULATOIRE ET DE LA MALADIE HYPERTONIQUE PENDANT L'EPREUVE AVEC LA RESPIRATION DIRIGEE.
Barabach E.—89
5. СЛОВА И ВЫРАЖЕНИЯ АНТИЧНОГО ПРОИСХОЖДЕНИЯ В РУССКОМ ЯЗЫКЕ И МЕДИЦИНСКОЙ ТЕРМИНОЛОГИИ.
О. Болдырева, Н. Варда, Ю. Гусейнова,
Н. Войлошникова—90
6. INVIA EST IN MEDICINA VIA SINE LINGUA LATINA: НЕТ ПУТИ В МЕДИЦИНЕ БЕЗ ЛАТИНСКОГО ЯЗЫКА
Никифорович А—91

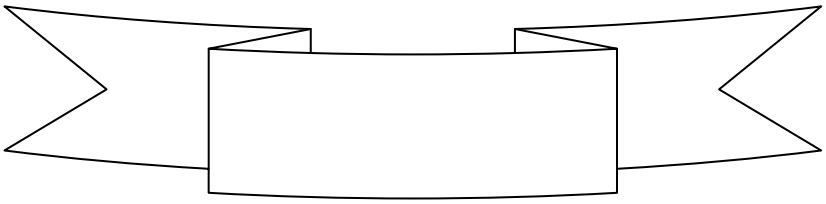
7. ИСТОРИЯ ПРОИСХОЖДЕНИЯ НАЗВАНИЯ ХИМИЧЕСКИХ ЭЛЕМЕНТОВ
Дарчиева А, Кушнарев В.—91

8. МИФОЛОГИЧЕКИЕ И БИБЛЕЙСКИЕ МОТИВЫ В НА ЗВАНИЯХ ЛЕКАРСТВЕННЫХ РАСТЕНИЙ
Карацуба С.—93

9. ИСТОРИЯ ЗУБОВРАЧЕВАНИЯ В ДРЕВНЕМ МИРЕ.
Симачёва Е.—93

10. РИМСКИЙ КАЛЕНДАРЬ
Палий А.—94

Курсы для студентов АГМА в медицинском университете г. Осака—95



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