Федеральное агентство по Здравоохранению и Социальному Развитию РФ
ГОУ ВПО Амурская Государственная медицинская Академия
Студенческое научное общество

СБОРНИК ТЕЗИСОВ

18Я НАУЧНАЯ СТУДЕНЧЕСКАЯ КОНФЕРЕНЦИЯ НА ИНОСТРАННЫХ ЯЗЫКАХ

ABSTRACTS

18th SCIENTIFIC STUDENTS CONFERENCE IN FOREIGN LANGUAGES

15 ДЕКАБРЯ 2008г.

Благовещенск 2008

Gaudeamus igitur,
Juvenes dum sumus!
Post jucundam juventutem,
Post molestam senectutem
Nos habebit humus!

Ubi sunt, qui ante nos
In mundo fuere!
Vadite ad superos,
Transite ad inferos,
Hos si vis videre!

Vita nostra brevis est,
Brevi finietur.
Venit mors velociter,
Rapit nos atrociter,
Nemini parcetur!

Vivat Academia!
Vivant professores!
Vivat m em brum quodlibet!
Vivant membra quaelibet!
Semper sint in flore!

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Сборник тезисов докладов 18[й] студенческой научной конференции на иностранных языках под редакцией председателя Совета НИРС АГМА
проф. Е.А. Бородина.
Благовещенск 2008г.

Сборник тезисов докладов 18[й] научной студенческой конференции на иностранных языках содержит тезисы 110 докладов, заслушанных на трёх секциях:

- Английского языка
- Немецкого языка
- Французского и латинского языков

Summer Class at Amur State Medical Academy, 2008 in Blagoveshchensk - with Appreciation and Impression.

Yasunori Ariyoshi DDS, PhD
Assistant Professor of Department of Dentistry and Oral Surgery,
Osaka Medical College

It is a great honor for me to have an opportunity to write an article for Amur State Medical Academy (ASMA) newspaper about my impression and experience from my visit to Russia. First of all, thank you very much for your hospitality and giving us a lot of experiences of practical Russian medicine and actual culture during our stay in Russia.

On 18th July, five students in 5th grade of Osaka Medical College (Mr. Yaegaki, Mr.Yokota, Mr. Nishi, Ms. Ito, and Ms. Ishikawa) and I departed from Osaka Itami International Airport. Although Prof. Kono, Prof. Shimahara, and Ms.Imao sent us off, we were full of anxious and hopes, because that was our first visit to Russia. At Niigata International Airport, we boarded Dalavia airplane for Khabarovsk. On the airplane it was too hot and humid before take-off, but after take-off that was comfortable with cuisine and drinks. Approximately 2 hours later, we arrived at Khabarovsk airport. I had wondered if we could not meet Prof. Borodin at the airport. Fortunately, we could meet him and Dr. Natalia soon. Thank you very much, that we were making a good start!

Khabarovsk was a large city, and I was surprised that Russia and Japan were extremely close with each other geographically, however, there were completely different buildings, people and so forth except for cars. There were a lot of Japanese cars such as Toyota, Nissan, Mitsubishi, in addition, some of these cars had an advertisement written in Japanese characters.

In the evening of July 19th, we departed from Khabarovsk for Blagoveshchensk by train. It was extremely exciting experience for me, because that was my first time to travel on a sleeper. Sights through the window were impressive. In Japan, when we travel between Tokyo and Osaka by the bullet train, we can only see buildings, shops, houses, and every artificial materials in almost all of the way. But from this train, all I could see was beautiful and magnificent forest and fields, with no artificial materials. The landscape was very unusual but exciting for me. Next morning, we had finally arrived at Blagoveshchensk. Approximately 46 hours has passed since we had left Osaka. Students of ASMA came to see us to the Blagoveshchensk station. At that time, I could see many old familiar faces who had visited Osaka last summer. Since then, students had taken care of us warmly till the time of our departure of Blagoveshchensk. I was surprised at their hospitality and patience. Every day, ASMA students made sure whether the meals were served well or not, they took us to the hospital early in the morning as well as every place we went and bring us back to the hotel by cars. Thank you very much for your hospitality and kindness. Through the windows of the hotel room, and during walking along the Amur River, we could easily see the Chinese territory. That was somewhat unusual location for me. Because Japan is surrounded by sea, only we

can see from seaside is the horizon, not another countries.

In the hospital, professors, doctors and students gave our students a lot of precious opportunities to have practical experiences which could not undergo in Japan. I was surprised that Russian students assisted their doctors well in actual examination and surgical operation. Two of our students got a chance to take part in the surgical operation as assistants. I believe that they will never forget this experience. In addition, I respect Russian students by their English skills, because they always simultaneously translated Russian to English and English to Russian. Discussions with the professors, doctors and students were extremely exciting and fruitful to know Russian medicine and culture.

After the work with the patients, you gave us a lot of opportunities to know and to feel Russian traditions, culture, natures, daily life of students, as well as the educational programs. Ms. Tatiana Gudkina, who came to Osaka last summer with the delegation of students of ASMA, gave our students and Russian students an English lesson out of her busy schedule. Both students eagerly practiced English at that class, and I believe it was fruitful experience for our students. The earnest expression of Russian students during the class was impressive. We were surprised in the morning of July 24th, one of Japanese student' (Mr.Yokota)s birthday, because Prof. Borodin and Russian students remembered it and gave him a birthday present. All of us, even Mr.Yokota, himself, had forgotten of his birthday. On behalf of Mr. Yokota, I would like to express our thanks for your friendship and thoughtfulness.

For me, discussion with Vice-Rector Ms. Olga V. Lysenko for treatment of patients who suffered from neoplasm, for example, breast cancer, was impressive and fruitful. It was informative to me to know their usual life by chatting in café with Russian students.

Discussion about "Sights of Japan and Russia" was very interesting for us all. Japanese students showed famous temples, mountains, gardens, castles, and their school life in Japan. Russian students showed extremely beautiful sights in Russia. I felt that Russia was large not only in their territory, but also their monument, buildings, and natures. After the discussion, I want to know more about Russia, not only sights but also traditions and people.

We visited rector of ASMA, Professor Vladimir Dorovskikh and had a fruitful meeting, and both of us welcomed the development of cooperation between ASMA and OMC.

We also paid courtesy visit to the Vice-Governor of Amur State. She made a welcome speech and each of us said some words about impression of Russia. It was just a little bid nervous but very exciting time.

As well as the educational and formal programs, cultural programs were also interesting. I never forget the scenes of night club and Russian sauna. The night club was similar to disco where I often went to when I was a student (maybe 20 years ago). All students were dancing, drinking, and chatting. Different countries and different time, but amusement for young students does not different each other. Russian sauna and cold water pool, the contrast was cool. The most impressive cultural program was "Excursion to the Nature" on 27th July. Swimming in the river, playing tennis, BBQ, and sauna made us relax, exciting, comfortable, and

feel happy. Especially, BBQ with vodka was tasty. Driving in the magnificent scenes was comfortable.

Swimming in the lake with Prof. Borodin early in the morning was one of the most impressive experiences for me. I thought that was good for health in summer season. And I was surprised at the physical capacity of Prof. Borodin.

Time flies when one is having a fun. Our stay in Blagoveshchensk went by surprisingly fast. Every time Japanese students felt at home, and enjoyed their time during their stay in Russia, thanks to your dedicated support. Saying good-bye comes over by all means. At the time of farewell party, each one of us had a chance to express our appreciations and you gave us some farewell words. I believe this completion of summer class is not an actual ending, but just a start of cooperation for five Japanese students and midstream of the history of cooperation of ASMA and OMC which is going to develop more. It is my pleasure that Russian doctors, teachers and students have some interests in Japanese medicine, cultures, tradition, and people during our stay in Blagoveshchensk.

This full success of Summer Class in Blagoveshchensk was all depended on your preparation, hospitality, and friendship. Once again, I express sincerely thanks to all of ASMA professors, doctors, teachers, and students for all they have done for the success of Summer Class 2008 in Blagoveshchensk.

Section of the English Language

1. THE DIFFERENCES BETWEEN OSAKA MEDICAL COLLEGE AND AMUR STATE MEDICAL ACADEMY

Ishikawa M., Ito Y.– the 5th-year students of OMC (Osaka, Japan)

This summer, we went to Amur State Medical Academy.
We felt a lot of differences between Japan and Russia and we were very interested in them. For example, the average age of marriage, the operation room, medical system and so on. Today, we'd like to show the things which impressed us.

2. THE INTRODUCTION OF O.M.C.

Yaegaki T, Yokota A., Nishi H.– the 5th-year students of OMC (Osaka, Japan)

First of all, we will introduce about the location of our college O.M.C. Next, we will introduce our curriculum.
And then, students of O.M.C. have many club activities. So we will introduce about that. Today, we'd like to show some clubs as an example.

3. JAPANESE BEATIFUL MOUNTAIN

YOKOTA A.- the 5rd year student of OMC (Osaka, Japan)

JAPAN has various beautiful scenes. This time, I tell you JAPANESE MOUNTAIN.
I join MOUNTAIN Club. AND I took a lot of picture.
I show you it!

4. SYPHILIS AND OTHER SEXUALLY TRANSMITTED DISEASES

Prishchepa J. – the 6th year student
Scientific leaders – Ass.Prof. Melnichenko N.E., Yegorova V.D.

The public attention paid to AIDS tends to overshadow the rapid spread of other more "traditional" sexually transmitted diseases (STD), the most serious of which, syphilis, is no less fatal than AIDS unless treated properly and in time. Sterility caused by STD is also the hidden factor behind the collapse of Russia's birth rate.

In 1995 over 1.7 million people in Russia were registered as having STD, although the real figure is thought to exceed 5 million. The number of NEW cases of syphilis registered annually is the best indicator of the rate at which an epidemic is spreading.

In the last few years the official figures have leveled off and started to decline. However, experts do not believe that this reflects reality. The trouble is that the official figures are based on records generated by the system of state registration of diseases inherited from Soviet times. The recent rapid expansion of commercial medical services offering anonymous treatment without registration removes an increasing proportion of cases from the statistics. Moreover, even where registration does still occur it tends to be at a later stage of the disease, as people delay seeking treatment for economic reasons – in particular, out of fear of losing their job if their employer finds out that they are syphilitic.

This shift also biases the figures downward. Exposure to syphilis and other STD depends on the age, sex and place of residence. In 2006 93 136 patients with syphilis were registered (65, 4 cases per 100 000 of the population).

In 2007 - 89 644 cases (63.0 per 100 000 of the population) were registered.In the Far East the intensive index was 101,2 % in 2006. In 2007 the index made up 98.4%.

In the Amur region the index was 161.8% in 2006. In 2007 it made up 157.2%. It is 2 times higher than in Russia.

To STD experts refer the following diseases gonorrhea, chlamydiosis, trichomonosis, herpes, ureaplasmosis, mycoplasmosis, HIV and others.

In Russia in 2006 there were 90 974 cases of gonococcus infection, in 2007 - 86 405 cases. The intensive index made up 69, 8% in 2006, in 2007 - 60.8%.

In the Far East the intensive index was 123% in 2006, in 2007 - 115%.

In the Amur region the rate of the disease is 2, 7 times higher than in Russia. In 2007 it was 2.5 times higher. The greater index of gonorrhea cases was in patients aged 20-29. It makes up 60.8% of all cases.

Thus after the analysis of mobidity with STD we should pay great attention to early diagnostics, careful survey of young people to reveal the sources of infection and to activate the sanitary culture among young groups.

5. PATHOLOGY, WHICH INTRODUCES US WITH GREAT PEOPLE AND FUNDAMENTAL ASPECTS OF MEDICINE

Nurieva J. – the 2nd year student
Scientific leaders – Prof. Gordienko E.N., Rudenko A.I.

Pediatrician - Antonin Bernard Marfan described the disease that still bears his name at a meeting of the Paris Medical Society in 1896. He presented the case of a five-year-old girl called Gabrielle, pointing out her disproportionately long limbs.

Marfan syndrome is an autosomal dominant disorder. It is estimated that at least 4 in 100000 people in the Russian Federation have the disorder. The Marfan syndrome affects men, women and children, and has been found among people of all races and ethnic backgrounds. Patients with these diseases in the Amur region are also.

It is now known that a single abnormal gene located on chromosome 15 and containing the coding for fibrilin, a connective tissue protein, is responsible for the syndrome. Gene map locus 15q21.1. Frequently, this gene is inherited from a parent who is affected. Approximately 25% of cases are due to a spontaneous mutation at the time of conception.

FBN1 encodes a protein called fibrillin, which is essential for the formation of elastic fibres found in connective tissue. The primary purpose of connective tissue is to hold the body together and provide a framework for growth and development. In the Marfan syndrome, the connective tissue is defective and does not act as it should. As long as connective tissue is found throughout the body, the Marfan syndrome can affect many body systems, including the skeleton, eyes, heart and blood vessels, nervous system, skin and lungs.

The body systems most often affected by the Marfan syndrome are:

Skeleton- People with the Marfan syndrome are typically very tall. The Marfan syndrome affects the long bones of the skeleton. Other skeletal abnormalities include a sternum that is either protruding or indented, scoliosis, and flat feet.

Eyes- More than half of all people with the Marfan syndrome experience dislocation of one or both lenses of the eye. Retinal detachment is a possible serious complication of this disorder. Many people with the Marfan syndrome are also nearsighted.

Heart and blood vessels- The two leaflets of the mitral valve may billow backward when the heart contracts, a condition called "mitral valve prolapse". The aorta is generally wider and more fragile in patients with Marfan syndrome. The widening is progressive and may result in leakage of the aortic valve in the wall of the aorta.

Skin- Many people with the Marfan syndrome develop stretch marks on their skin. These stretch marks can occur at any age and pose no health risk.

Lungs- Restrictive lung disease, primarily due to pectus abnormalities and/or scoliosis,

occurs in 70% of persons with MFS. In addition, because fibrillin is expressed in the lung and is associated with elastin there, Marfan fibrillin –1 deficiency is thought to affect both lung development and homeostasis.

Early diagnosis and advances in medical technology have enhanced the quality of life for people with the Marfan syndrome. Most people affected with the Marfan syndrome are able to lead productive and satisfying lives. The best hope for living into one's 70's or even 80's lies with attention to recommended medical care and changes to lifestyle. Lifestyle changes are mostly related to limitations in physical activity, both at work and during recreation.

The diagnosis of Marfan syndrome has been suggested in at least 7 historical figures, Abraham Lincoln, Paganini, G.H. Andersen, Nicola Tesla, Sharl de Gol, K.I. Chukovski, and Ben Laden.

6. SICKLE-CELL ANEMIA

Litovchenko E. – the 2nd year student
Scientific leaders – Prof. Gordienko E.N., Posokhova A.A.

Rapid development of biology and hematology in the 50th – 70th years of the 20th century let us to approach to understanding of medical problems in the development of hematogenic tissue. Erythrocytes are red blood cells of a man, the main function of which consists of oxygen and carbon dioxide exchange. Hemoglobin is the respiratory pigment, for the synthesis of which the presence of three structural components – globin, protoporphyrin and ferrum is necessary. Hemoglobin of a healthy person consists of three fractions which differ by aminoacid structure of globin`s chain. More than 200 anomalous forms of hemoglobin are known (for example sickle-cell anemia). Drepanocytosis is a serious hereditary disease of blood. Inheritance is occurred by autosomal-recessive type. Heterozygosis by sickle -cell anemia gene causes stability to malaria and anemia in such people is not practically revealed. Homozygous form is characterized by symptoms of ischemia, lesion of spleen, lymph nodes, mesentery of kidneys, nausea and vomiting are possible. Sickle-cell anemia is spread in Africa, Latin America, Asia and other countries. There does not exist prophylaxis of sickle-cell anemia. Nowadays women with drepanocytosis have many chances to give birth to a healthy child. There is no specific treatment of the disease so far. There exists only palliative therapy. Scientists work out methods of sickle-cell anemia treatment.

7. NEW HOME TECHNOLOGY IN THE MORPHOLOGY. POLYMERIC EMBALMING

Gavrilina D. – the 2nd year student
Scientific leaders – Zherepa L.G., Volosenkova E.A.

Methods of corpses embalming with the help of formalin carboxylic acid and glycerol are traditionaly used at the chair of Anatomy. These methods are harmful for the health of teachers and students. Besides the above mentioned methods cannot provide prolonged conservation of the embalmed organs in the open air without hermetic package. The experiments carried out by Dijenir and Bernd in 1914 and by Chochschteiler and Schneidel in 1924 helped create up-to-date technology of polymeric embalming. To receive dry anatomical specimen the scientists used paraffin embeding the intercellular spaces of organs after their defatting and dehydrating. In 1980s professor fon Hagens of the university of Geidelberg (Germany) developed the technology of impregnating intercellular spaces of organs with the use of different polymers (silicone, polyethereal and epoxide resins. Since 1998 at the chair

of Anatomy of the Military Medical Academy new methods of conservation of the anatomical and biological objects have been developing under the quidance of Professor I.V. Gaivoronsky. Inexpensive home polymers are used. Some technological processes have been developed. The aim of these processes is to replace water and lipids of biological tissues using silicone polymer. This method has been called – polymeric embalming.

Five stages can be assigned in this process:

conservation of the object in the formalincontaining solutions;

creation of the specimen;

dehydrating and defatting;

saturating with the polymer;

polymerization.

Biological objects received with the method of polymeric embalding have the following prefences:

the anatomical specimen saturated with polymer are not toxic without any smell and are harmless for the health of teachers and students;

the specimen have natural colour and form due to the polymers used;

specimen are kept for a long time in the open air without hermetic package;

silicone polymers prolong the period of their use, besides it is economically profitable.

Thus introduction of polymeric embalming technology into the course of training will help turn the subject of anatomy into the science pleasant to study.

8. VENOUS ARCHITECTONICS AND VALVES LOCALIZATION IN THE MUCOSA VEINS OF GASTRO-ESOPHAGEAL TRANSITION

Moiseyenko A. – the 2nd year student

Scientific leaders – C.M.Sc. Seliverstov S.S., Matveyeva E.V.

A unique (in comparison with animals) venous bed of GET mucosa draws attention of many researches, however, the structure, the topography, the parameters, the homodynamics of the veins are still little known; and the data on the veins valves presence aren't found in publications.

The methods of the vein injection (ink-gelatin 3%, fluorescence, histology, computer morphometry- biovision 3 programme), coordinated with the use of special planimetric mesh were applied to study 42 gastroesophageal transition preparations of the mucosa veins in the middle-aged patients. The researchers ascertain that 5-6 veins extend into the submucous tela of the ventricle cardial part from its adjacent part; the veins with the diameter of 0, 92±0, 07 mm go in the direction of esophagus and form five venous zones.

The first (I) zone of the cardial part with the width of horizontal stripe (17, 0±1.37mm) in the submucous tela has looping veins with the diameter of 0,375±0,019 mm.

The second (II) zone with the width of 8,25±0,82 mm is contiguous to Z-line (the joint of the epithelium of esophagus and stomach) and has the veins with the diameter of 0.233±0,05 mm, perforating (3) their own muscle plate in the direction of the esophagus mucosa.

The third (III) zone is a unique one, as it's formed according to the portal system and is sited above a transitional Z-line. The third zone occupies a horizontal stripe with the width of 23,5±0,82 mm and has 200-250 longitudinal venules (4) with the diameter of 0,143± 0,004 mm, sited in the esophagus mucosa above the muscle plate. These longitudinal venules take part in formation of a closing esophagus system, as they occupy 65% of the III zone surface of its mucosa and are capable to enlarge their diameter at swelling. In the sites of the vertical fields C,D,I,K, appropriate to the left esophagus wall and lesser curvature of the stomach, longitudinal venules lie on two layers.

Anastomoses of the longitudinal venules aren't marked with the veins of the

deeper layers of the muscles and connective esophagus membranes.

The fourth (IV) zone with the width of 6,3±0,38 mm is in the esophagus in the distance of 35-45 mm above Z-line and has perforating (own muscle plate), confluent fan -shaped (recurrent into submucous tela) veins with the diameter of 0,252±0,02 mm.

The fifth (V) zone with the width of 16,0±1,1 mm has from 4 to 6 confluent longitudinal veins (6) with the diameter 0,564±0,07 mm, which have intravenous valves (10) and specify blood flow of the cranial direction. The quantity and the distance between adjacent valves in the veins are characterized by individual variability. The veins interrelations of GET mucosa in all 5 zones with postcapillary venous vessels (7, 8, 9) have a various structure.

9. METHOD OF VIVATION AND ITS INFLUENCE ON THE ACTUAL PROBLEM OF THE PERSON

CHEKMARYOV M.V. – THE 6TH YEAR STUDENT
Scientific leaders – Ass.Prof. Dudin I.I., Teplishcheva M.M.

Vivation is a pneumocathartic technology based on the integrative breathing as a method of psychological transformation and composite development of the person. The authors are Jim Leonard and Phillip Lout. The meaning of the word vivation in the word-for-word translation is the "celebration of living".

5 main principles of vivation:

Coherent breathing – breathing without a pause between the inspiration and expiration. During the process of vivation we use 4 tipes op breathing: deep and slow, deep and frequent, superficial and frequent, superficial and slow.

Full relaxation.

Attention to the details.

Integration of the emotions.

Active trust to the method.

The patient should to explore his feelings, breathe not mechanically but consciously and just enjoy the process. There are two types of pneumosessions – large (1-2 hours) and small (about 30 minutes).

The main part of vivation is the integration – acceptance of the emotional experience and its analysis. So we have a method of deep and complex working with our mind.

We carried out 4 small sessions ofvivation. The number of participants was 48. There age was between 16 and 41. As a method of control we choose the M. Lusher's projective color test, brief variant before and after the sessions. The dynamics of the participants' state was analyzed on the basis of the actual problem that has 4 categories: 1. The absence of conflict 2. Moderate conflict (*) 3. Perceptible conflict (**) 4. Serious conflict (***). Before the session: 1 – 13, 2 – 25, 3 – 10, 4 – 0. After the session: 1 – 18, 2 – 26, 3 – 4, 4 – 0.

So we can see tendency to weakening of the actual problem and harmonization of the mind state after the session of vivation.

10. SUMMER CLASSES FOR STUDENTS OF THE OSAKA MEDICAL COLLEGE IN THE AMUR STATE MEDICAL ACADEMY

Dimova M. – the 3rd year student
Scientific leaders – Prof. Borodin E.A., Teplishcheva M.M.

From the 20th till 30th of July 2008 the firth summer meeting for the medical students of the Osaka Medical College (OMC) was organized. It took place at the Amur State Medical Academy (ASMA). Mr. Yasunori Ariyoshi, assistant Professor of Department of Dentistry and Oral Surgery and five Japanese students (Mr. Yaegaki Takahide, Mr.Yokota Atsushi,

Mr. Nishi Hiroyuki, Ms. Ito Yu, and Ms. Ishikawa Midori) visited ASMA during Russian-Japanese Medical Exchange Program. They participated in the practical courses, including scientific and cultural parts. Our guests attended 3-days classes in Surgery, Therapy, Obstetrics and Gynecology in the Amur Regional Hospital and the Blagoveshchensk's Perinatal Center. Under the guidance of the skilled doctors (L.A.Volkov, T.S.Bystrytskaya, S.V. Naryshkina) our guests had a lot of precious opportunities to get practical skills examining the patients. Japanese students also got a chance to take part in the surgical operations as assistants and were deeply impressed by the procedures of delivery and Cesarean section operations in Perinatal Center. They were fascinated by the newborns, which were born so small and "blue", but in several minutes due to the qualified manipulations of neonatologists they became rosy and unbelievably pretty. As a matter of fact, Japanese students had no possibilities to come into touch with the patients till the 5th year, that's why they were also surprised by the practical skills of our students undergoing practical training after the 4th year. You can see their expressive faces when they were allowed to take the infants in their own hands. So they became acquainted with different diagnostic, prophylactic and curative methods of our doctors in the departments. Also the students got some practical experience while assisting to the doctors during operations, procedures, examining the patients and studying the certain clinical cases in therapy, surgery and obstetrics. No doubt, Japanese students received a lot of professional impressions to share them with their native fellow students.

Cultural program was also rich and productive. Ms. Tatiana Gudkina, who visited Osaka last summer with the delegation of ASMA students, taught an English lesson to Japanese and Russian students. During a visit to rector of ASMA professor Vladimir Dorovskikh they had a fruitful discussion about the development of cooperation between ASMA and OMC. The Japanese students visited the Vice-Governor of Amur region, the Regional Ethnography Museum, night club and traditional Russian sauna. Besides, walking along the streets of our town was very interesting and informative about everyday life. Discussion about "Sights of Japan and Russia" was very interesting for all of us. Japanese students showed famous temples, mountains, gardens, castles, and their student's life in Japan. Russian students showed extremely beautiful sights of Russia. It helps our guests to find out more about Russian culture, traditions and life style. Russian nature produced a great impression on Japanese students. Swimming in the river, playing tennis, BBQ and sauna was exciting, comfortable and unforgettable for all of us. Swimming in the lake with Professor Borodin early in the morning was one of the most impressive experiences for Japanese guests. Students' visit from Japan strengthened mutually beneficial ties not only between ASMA and OMC, but also between our people. We are sure that Amur region and Japan became closer to each other.

11. APPLICATION OF WIKIPEDIA IN BIOCHEMISTRY

Skolubovich A. – the 2nd year student
Scientific leaders – Prof. Borordin E.A., Teplishcheva M.M.

Wikipedia is a multilingual encyclopedic project with free content. The name Wikipedia is a combination of the words "wiki"- a kind of joint site and "encyclopedia". Wikipedia articles provide the possibilities for user to find the additional information.

Wikipedia is created by the volunteers from all countries of the world. Since the foundation of the given site in 2001, Wikipedia became one of the most popular sites attracting at least 684 million visitors yearly by 2008. There are more then 75000 articles spreading in more than 250 languages. At present there are 2 million articles in English. Every day hundred of thousands visitors from the whole world make tens of thousands of amendments and create thousands of new articles increasing the quantity of knowledge kept in Wikipedia.

Visitors are not required specialized qualification to contribute to Wikipedia. It means that people of all ages, cultural views and social status can publish articles in Wikipedia.

As well, you may prefer reading Wikipedia in other languages. Wikipedia has more than 2 thousand of multilingual versions including simple English version. The projects related to it include dictionary, books, manuals, scientific references and informative service. The content is supported, updated, changed by different groups of people. It often contains the thought-provoking information which hard to find in other common sources.
The ideal Wikipedia article is a balanced, neutral and encyclopedic one, containing all-round and verifiable knowledge. Increasing number of articles is achieving these standards and some of them have already done it. As well as in other systems to avert and take under the control vandalistic actions Wikipedia has its own style and certain guidance.
Russian version is so different from English one. For example, we'd like to get information in biochemistry about proteins. In Russian version there are 3-4 pages of scientific data. As for English version we can find more material including 6-7 pages. Also, in this version more beautiful and interesting pictures, which present the structure of the proteins, are contained.
Knowledge about enzymes gained from English version allows to understand the whole structure, functions, principles of action of these substances that we can't find in Russian variation of the given program.
Thus, we can compare other questions in biochemistry covered in English version. The conclusion remains the same: English version gives more complete information about a question we are interested in.
And one more conclusion: we should master English to get as much as more information which will be valuable in our educational, scientific and further professional activity!

12. ACUTE HASHISH PSYCHOSIS

Agarkov A. – the 6th year student
Scientific leaders – Ass.Prof Dudin I.I., Ass. Nesterenko A.B., Teplishcheva M.M.

Hashish (from Latin word "grass") is narcotic substance extracted from the plant Cannabis sativa which is widely spread all over the world. In the western countries it is called marijuana and in the eastern ones—hashish. The first evidence of usage of marijuana belongs to the Stone Age. The earliest mentions about the usage of cannabis for healing were found in Chinese manuscripts. Cannabis relieved pain, avert the evil spirits from the ill people. But the fanciful changes in their behavior that at present is called acute hashish psychosis were noticed in persons taking the large dosage of cannabis.

Acute and chronic psychosis may occur on the background of long usage of narcotic and toxicomanic preparations. Psychosis may appear in one-act usage of the drug and it is expressed by acute disturbance of consciousness, sense of fear, hyperesthesia. In the cases of over dosage psychotic disorder is expressed in the changed mental state-night disorders, hallucination confusion, sometimes illusions. All kinds of disorders such as obnubilation, insomnia may occur. On the second-third day of abstinent syndrome of psychosis, often it is either night disorder of the consciousness or hallucinative-paranoid syndrome develops. The outcome from psychosis is gradual, on the 6th- 7th day in expressed asthenia with hypochondria and importunacy.

Delirious-oneiric syndrome occurs when psychotic state follows after the symptoms of slight intoxication. The picture may be amount to nothing more than "oneiric ecstasy". Isolated from surrounding world the teenagers fully immersed in their own fantastic dreams. The doctors fail to come into touch with the patients. Sometimes the patients say short phrases.

The state of mental confusion (psychtaxia) occurs in the peak of intoxication, but it may appear at the every begging. The lost appearance, inability to understand the surrounding events and familiar people may intermediate (be mixed) with expressive affective fear,

angry reactions or unreasonable joyfulness. The patients may suddenly change awful laugh to the cries.

Acute paranoid is a quit rare complication of the hashish intoxication. Immediately after taking it, anxiety, susceptive attitude to surrounding people appear. As a result, the ideas of persecution mania and attitude develop. The length of acute psychosis caused by hashish intoxication lasts from several hours up to several days.

In recent years we noticed the significant increase of the patients admitted in the hospital with affective delusion, acute paranoid and hallucination syndrome caused by chronic hashish intoxication. We analyzed 20 case histories of the patients with such disorders hospitalized in the department during the last year. The majority of the patients in premorbidity phase were noticed autochthon depressive changes of affect or short reactive states as the expression of reactive labiality like endoreactive dysthymia. In these cases intoxication during the long time compensated the depressive affect changers. Along with, we observed the premorbidity asthenic schizoidia or psychcoasthenic accent.

On the 1st stage when intoxication was relatively rare (1-3 times a week); its action was more marked then post intoxication anxiety and asthenia.

On the 2nd stage gradually post intoxicate anxiety and asthenia depressive disorders became increasingly distinctive. The initial episodic ideas of relations and persecution took the constant character.

On the 3rd stage of the sharp increase of hashish intoxication was observed.

13. COMPUTER VISION SYNDROME IN CHILDREN

Gosteva A. – the 4th year student
Scientific leaders – C.M.Sc. Mikhalsky E. A., Bibik I. A.

Vision is our most precious sense. Our eyes are in constant use every waking minute of every day. The way we use our eyes can determine how well we work throughout our lifetime. Over eighty percent of our learning is mediated through our eyes, indicating the important role our vision plays in our daily activities. Vision disturbance is a silent enemy that only appears after along period of continued stress. Computer Vision Syndrome, commonly referred to as CVS, is a condition recognized by the American Optometric Association that affects users of video display terminals (including video games, PDAs, and computer monitors). In most cases, symptoms occur because the visual demands of the task exceed the visual abilities of the individual to comfortably perform the task. According to VSP Vision Care, nearly half of U.S. children spend four hours a day or more using computers or other portable electronic devices putting themselves at risk for potential eye problems. Symptoms of CVS are associated with forms of near work; these include headaches, fatigue, eyestrain, blurred or double vision and dry eye. The causes for these visual symptoms are a combination of individual visual problems, poor workplace conditions and improper work habits. This complaint is a temporary problem that arises from spending long periods of time in front of a computer screen. It can cause blurriness of vision often from not changing focal point and from the glare and brightness given out by visual display units. The tiny muscles around the eye can become strained from not being exercised regularly, caused by sitting in one position and looking at the same distance for too long. There is also a noticeable deficiency in blinking which can lead to dry and irritated eyes. It has been suggested that by spending only two hours in front of the screen is sufficient to suffer from many of the problems associated with computer vision syndrome. This condition can be prevented in many ways. The most important and simplest measure to take is to take regular breaks away from the computer screen or by shifting the vision away from the screen allowing the eyes to change their focal point, thus allowing the eye muscles to relax. Other methods include using an anti-glare

device which can be placed over the screen and helps to filter the light emitted from the screen, reducing the brightness and dazzle caused by the display unit. It is advised that a good quality computer screen is used as the eyes will be able to focus better in the presence of a higher number of pixels. Children are particularly at risk of this complaint as they are spending longer and longer working on computers at school and are coming home and playing for long periods of time on games consoles, often in a fixed position with the screen being at the same distance away for the duration. It is important to educate on the problems associated with computer screens and encourage them to take breaks away from the screen, or to use eye wear appropriately. Regular check-ups at the opticians will help keep your child's eyes healthy and will allow the optician to detect any problems at an early stage.

14. VERTEBRAL ARTERY SYNDROME

Konkova D. - the 4th year student
Scientific leaders – CMSc Yeremenko V. I., Bibik I. A.

The main causes of vestibular disorders and craniology are cervical osteochondrosis and vertebral basilar discirculation.

Vertebral artery syndrome (VAS) is a cerebral blood flow disturbance in the system of one or two vertebral arteries. The disease usually starts during the third decade.

Vertebral arteries belong to the vertebral basilar basin. They supply the brain back parts with the blood. It is about 15-30 per sent of the blood flow.

Because of the vertebral basilar discirculation contralateral hemiplegia and hemianesthesia, homolateral disturbance of the face sensitivity and the symptoms of cranial nerves damage appear. The alternating Wallenberg-Zaharchenko` syndrome appears because of the occlusion of the lower back cerebellum artery.

Etiological agents of the VAS are cervical osteochondrosis, congenital abnormalities of cervical vertebrae, atherosclerosis and abnormalities of vertebral arteries, arterial hypertension and hypotension. There are two forms of the vertebral artery clinical instability.

The first form is the compression irritative VAS. It occurs in the case of the efferential nerves irritation or artery compression at the entry to the transversal processes canal (TPC), in the TPC or at the exit of the TPC. The second form is reflex angiospastic syndrome is caused by the afferential structure irritation.

The functional stage of VAS is characterized by three groups of symptoms: craniology, cochleo-vestibular and visual disorders.

Because of the prolonged and intensive vessel spasm stable ischemia can develop. This organic stage of VAS includes transient and stable discirculation in the spinal cord and cerebrum. The criteria of VAS are clinical picture, pathological changes on the roentgenogram and magnetic resonance image of the cervical part of the spine, extravessel compression of the vertebral artery during ultrasound dopplerography with functional tests. Angiography is used for topical diagnostics of the vertebral arteries changes.

15. **BIOINFORMATICS**

Arsenova T. – the 2nd year student
Scientific leader – Prof. Borodin E.A.

During the first two years of medical education, we study such subjects as biology, organic, bioorganic and biological chemistry. These subjects are necessary for practical medicine because they teach us how to recognize molecular causes of different diseases, how to treat these diseases with the help of medicines (drugs).

The modern medicine uses modern methods of treatment and these methods were created by new biological and chemical sciences. They are Genetics, Proteomics and Bioin-

formatics - “sciences of life”.

Why did I choose bioinformatics for this work? I try to answer this question.

Bioinformatics or computational biology is the science that helps us to use computers and computer technologies to solve different medico-biological problems. Bioinformatics entails the creation of databases, algorithms, computer and statistical techniques, and theory to solve formal and practical problems arising from the management and analysis of biological data.

Computers were used in sequencing of DNA of different organisms including human genome. The sequencing of DNA results in creation of the biggest databases of genes (with the help of computers). Now clarification of primary structure of proteins, modeling of the next structures of proteins and prediction of their biological activity are in need of computer technologies. Use of special programs helps us to create “evolution tree” of different organisms. These and other examples demonstrate how computers and informatics are necessary for biology and medicine.

These are some aims of bioinformatics:

The primary aim is to increase our understanding of all biological processes.

The next aims are the gene finding, prediction of gene expressions, creation of genes databases.

The third aim is protein structure alignment and protein structure prediction, creating and viewing 3-D models of protein structures.

The fourth aim is the model of evolution.

However, very important aims of bioinformatics are the creation of effective drugs and modeling of different methods of treatment on the molecular level.

In this work, I want to show some possibilities of bioinformatics in modeling drugs that can help to treat protein-caused diseases. Protease (enzymes that hydrolyze proteins) can destroy tissues, cells if they are not under the control of protease inhibitors. Deficiency of protease inhibitors (they are proteins too) causes serious diseases. The search for natural or synthetic inhibitors is very important. With the help of different amino acids and protein databases and some programs such as BLAST and others we can determine the primary structure of protease inhibitor and compute their three-dimensional structure. Then we design different variants of this protease inhibitor and after this, we may choose one or some substances that are more adequate to our problem. Then we can create this inhibitor or extract it from some plants or microorganisms. Next step is help of other sciences.

As for me, I think that the study of bioinformatics helps us to master our future profession. Nevertheless, not only doctors, but scientists are those who need this knowledge. All people can get to know about all processes in their organism with the help of computers, internet and educational programs.

16. ROENTGENOLOGIC CHARACTERISTICS OF CERVICAL SECTION OF EPIDURAL SPACE

Kunilova M. – the 2nd year student

Scientific leaders – Ass.Prof. Shakalo Y.A., Teplishcheva M.M.

Taking into consideration the morphological premises, we determine the epidural space as a complex of various vascular-nervous and connective tissue anatomic formations included between the firm layer and walls of the spinal channel, reflecting the morphogenetic peculiarities of their structure. The given object can be investigated by means of reongenological contrast method.

Its connective tissue stroma has the leading significance in distribution of the injected solutions in the cervical section of epidural space. Age transformations of its walls influ-

ence on the contour form of reongenological shadow of cervical section of epidural space (in front and lateral projections). Reongenological methods of investigation of cervical section of epidural space largely depend on the type, quantity of used contrast substance, age peculiarities of object structure and technical conditions of substance introduction.

While contrasting the cervical section of epidural space in fetus and children of the fist years of life, we obtained its distinct filling conditioned by the peculiarities of the situated in it structures. Age transformations of the constructions of cervical section of epidural space form such dependence. That's why we can determine the distinct parallel between age morphological transformations of the elements of cervical section of epidural space and its reongenological image.

The main characteristics of reongenological picture of the cervical section of epidural space are: asymmetry while contrasting lateral sections; different level of the upper wall (occipital bone, C_1,C_2); variety of form of upper wall (oval, denticulated, peak shaped, collar-like, bicorn, linear); certain contour lines of the lateral walls (in the form of arch); dependence on the age transformations of connective tissue stroma (filling defects); weak places of walls (the level of the first intervertebral foramen and atlantooccipital connection). In the lateral projection the main characteristics are: certain lines of the anterior (wave-like), posterior (crest-like) walls; predominance of posterior section under the anterior one; different level of anterior wall sections (occipital bone, C_1, C2); dependence of age transformations of connective tissue stroma forming the filling defects; dependence on the type of the contrast substance.

17. KIDNEYS

Kunilova M. – the 2nd year student
Scientific leaders – Kozlova V.S., Teplishcheva M.M.

Kidneys are the pair organs located in the space behind the peritoneum. According their form kidneys resemble the beans. At average the size of kidneys of the adult person is 10-6 cm. The kidneys are situated in not strict longitudinal direction but they form some kind of a triangle. The right kidney is usually situated lower than the left one as it is under the largest human organ—liver. Kidneys are surrounded by the fatty tissue, which together with the surrounding muscles and ligaments support them in their place. This fact explains why in thin persons and also in the cases of sharp slimming kidneys are the pair organs located in the space behind the peritoneum. According their form kidneys resemble the beans. At average the size of kidneys of the adult person is 10-6 cm. The kidneys are situated in not strict longitudinal direction but they form some kind of a triangle. The right kidney is usually situated lower than the left one as it is under the largest human organ—liver. Kidneys are surrounded by the fatty tissue, which together with the surrounding muscles and ligaments support them in their place. This fact explains why in thin persons and also in the cases of sharp slimming such disease as nephroptosis—falling of the kidney—may occur.

Kidney consists of two layers. Superficial one is cortical and the deeper –cerebral. Having cut the kidney one can see that it is a system of tubules. Their function is to collect urine and to pass it to renal pelvis. Renal pelvis is the combined collector of all kidney tubules. It is situated in the so-called hilus renalis, where except of renal pelvis the artery and vein are located.

Basic constructive unit of the kidney is nephron. It is a glomerulus which consists of the final "cup-shaped" section of the tubule into which the capillaries enter. Blood passes through these capillaries. Due to membranous features of capillary walls, plasma –i.e. fluid component of blood without erythrocytes, leucocytes and etc. - from blood enters the glomerulus. Normally, some components of the blood such as leucocytes, erythrocytes and also proteins and sugar must not pass through glomerulus membrane. But in certain kidney and

other organs pathology these components are filtrated through the glomerulus membrane and are found in urine.

Thus, the main function of kidneys is the "filtration" of blood. Kidney is a principal organ, which purifies blood from residues and metabolic products. In the case of kidney disease this filtrating function is damaged that result in accumulation of metabolic products in blood. It is worth mentioning, that many remedies are discharged through the kidneys as well as in pure and converted forms.

The common pathologies of kidneys are: glomerulus pathology-glomerulonephritis; inflammation of kidney components- pyelonephritis, pyelitis, etc.; anomaly of renal development-doubling, hypoplasia, etc.; tumor disease- kidney cancer.

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18. PSYCHOSURGERY

Dukhovny E.A. – the 2nd year student
Scientific leaders – Prof. Gordienko E.N., Katina O.I.

Psychosurgery is a subset of neurosurgery intended to modulate the performance of the brain, and thus effect changes in cognition, with the intent to treat or alleviate severe mental illness. It was originally thought that by severing the nerves that give power to ideas you would achieve the desirable result of a loss of affect and an emotional flattening which would diminish creativity and imagination; the idea is that those are the human characteristics that are disturbed. Historically, the procedure typically considered psychosurgery, prefrontal leucotomy is now almost universally shunned as inappropriate, due in part to the emergence of less-invasive or less-objectionable methods of treatment such as psychiatric medication and modified electroconvulsive therapy. In modern neurosurgery, however, less invasive techniques like gamma-knife irradiation and foremost deep brain stimulation have arisen as novel tools for psychosurgery

The frontal lobe of the brain controls a number of advanced cognitive functions, as well as motor control. Motor control is located at the rear of the frontal lobe, and is usually unaffected by psychosurgery. The anterior or prefrontal area is involved in impulse control,

judgement with everyday life and situations, language, memory, motor function, problem solving, sexual behavior, socialization and spontaneity. Frontal lobes assist in planning, coordinating, controlling and executing behavior.

Thus, the efficacy of psychosurgery was often related to changes in personality and reduced spontaneity (this included making the person quieter and decreasing their craving to be sexually active). Certain processes related to schizophrenia are also believed to occur in the frontal lobe, and may explain some success.

19. STRESS

Astakhova E.V. – the 2nd year student
Scientific leaders – Ass.Prof. Cherbikova G.E., Katina O.I.

Stress is simply a fact of nature-forces from the outside world affecting the individual. The individual responds to stress in ways that affect the individual as well as their environment. Hence, all living creatures are in a constant interchange with their surroundings, both physically and behaviorally. This interplay of forces or energy of course presents in the relationships between all matters in the universe, whether it is living (animate) or not living (inanimate). However, there are critical differences in how various living creatures relate to their environment. These differences have far-reaching consequences for survival. Because of the overabundance of stress in our modern lives, we usually think of stress as a negative experience, but from a biological point of view, stress can be a neutral, negative, or positive experience. In general, stress is related to both external and internal factors. External factors include the physical environment, including your job, your relationships with others, your home, and all the situations, challenges, difficulties, and expectations you're confronted with on a daily basis.

What are the signs and symptoms of poorly managed stress?

Excess stress can manifest itself in a variety of emotional, behavioral, and even physical symptoms, and the symptoms of stress vary enormously among different individuals. Common somatic (physical) symptoms often reported by those experiencing excess stress include sleep disturbances, muscle tension, headache, gastrointestinal disturbances, and fatigue. Emotional and behavioral symptoms that can accompany excess stress include nervousness, anxiety, changes in eating habits including overeating, loss of enthusiasm or energy, and mood changes. Of course, none of these signs or symptoms means for certain that there is an elevated stress level since all of these symptoms can be caused by other medical and (or) psychological conditions It is also known that people under stress have a greater tendency to engage in unhealthy behaviors, such as excessive use or abuse of alcohol and drugs, cigarette smoking, and making poor nutritional choices, than their less-stressed counterparts. These unhealthy behaviors can further increase the severity of symptoms related to stress, often leading to a "vicious cycle" of symptoms and unhealthy behaviors.

20. TYPES OF SOMATIC CONSTITUTION OF THE 1ST YEAR STUDENTS OF ASMA

Dukhovny E.A., Astakhova E.V. – the 2nd year students
Scientific leaders – Ambrosyeva N.P., Katina O.I.

To define the types of somatic constitutions, we examined 40 students of ASMA (20 males and 20 females) at the age of 17 – 20 years.

The anthropometry on following parameters was performed: height, weight, circumference of a thorax. On the basis of the received data Pignet's index was calculated.

According to examinations 45 % of males have hypersthenic type of constitution. 40

% of males have normosthenic type of constitution, and asthenic type of the constitution have 15 % of males.

Among females normostenic type of constitution prevails. It was revealed in 70 % of the given group. The hypersthenic and asthenic types of a constitution are formed by 10 % and 20 % correspondingly.

21. PRIMARY MULTIPLE TUMORS

Saukova M. – the 3rd year student
Scientific leaders – Ass.Prof. Volkov L.A., Teplishcheva M.M.

The problem of primary –multiple tumor disease is undoubtedly the sphere of scientific and practical interests and deserves special attention. It is in the equal degree important both for theoretical and clinical cancerology.

The fact of the existence of primary-multiple tumors is of fundamental significance for decoding the essence of the tumor process, regularities of formation of its metastasis and the dynamics of its clinical course.

Primary-multiple tumors were known to Avicenna even in the 10-11 century. Under primary-multiple tumor diseases we usually understand the situation when one patient has several tumors at the same time.

If the tumors are revealed simultaneously they are called synchronous tumors. If the tumors are revealed sequentially, one after another, in a certain period of time, they are called metachronous. According to some authors the conventional interval is a six month interval. The clinical picture of primary-multiple tumor diseases is determined by the symptoms of every tumor. Though this situation is more characteristic for metachronous tumor, however the clinical manifestations can be complicated by the consequences of the first tumor a patient has suffered. The symptoms of synchronous tumor are not just the sum of the every tumor. In the case when one organ or a system of organs is affected the symptoms of tumor are similar and they revealed only by thorough purposeful investigation or by the method of autopsy.

The main condition of timely diagnostics of tumor is thorough patient's examination not only with the aim of revealing the tumor metastasis, but also with the purpose of revealing the possibility of the presence of the second and more tumors. The treatment of primary-multiple tumor diseases should be aimed at treatment of every tumor and can be radical, palliative and combined.

We present you a case of a female patient with primary-multiple metachronous cancer of thyroid gland and ascending colon .A 53 year-old patient Kozlova L.N. underwent operation on thyroid gland cancer in 1980 year. The diagnosis was confirmed by histological investigation. In eight year after the operation she was admitted to the hospital with the complaints of pain in the right half of the abdomen, irregular stool, difficult passage of stool and gases, weakness, six kilograms loss of body weight. The patient has been suffering for 3 month. On objective examination of the patient the skin and visible mucous membranes are pink-pale, body temperature is 36.6 C, the area of neck is not changed, on the anterior surface of the neck the postoperative scar up to 8 sm in length is found. Neck and supraclavicular lymph-nodes are not palpated. Cardiovascular, respiratory and urinary systems are without pathology. Digestive system: the tongue is moist and clean, abdomen is of regular form, symmetrical, is not swollen, soft. On palpation in the right half of abdomen a 6-8 cm thick, tuberous, moderately painful; dislocating tumor formation is revealed. Rectum is without pathology.

Additional methods of examination such as colonoscopy revealed a tumor with tuberous surface and areas of ulceration in the ascending colon. Diagnosis is the ascending

colon cancer.

The diagnosis was confirmed during the operation and by the histological investigation of the tumor. The post- operation period was not complicated. The patient was discharged on the 14-th day after the operation. Thus, the patient was diagnosed primary-multiple metachronous cancer of thyroid gland and cancer of ascending colon with the 8 years interval after the first tumor of thyroid gland.

Primary-multiple malignant tumors are often described as the combination of thyroid gland cancer with other organ malignant neoplasm. There are only few separate descriptions of affection of other organs of endocrine system.

22. ANTIOXIDANTS IN TREATMENT OF COGNITIVE DISORDERS

Sayapina K. – the 3rd year student
Scientific leaders – Ass.Prof. Anokhina R.A., Teplishcheva M.M.

Oxidation stress is one the causes of the development of neurodegenerative processes that leads to the memory loss and plays an important role in organism aging process. Free radicals and products of lipid peroxide oxidation destructively act on the central nervous system (CNS) cells. Endogenic antioxidant protection works ineffectively in Alzheimer's disease and organism aging process. That is why; preparations able to counteract to the free radical oxidation and slow down the development of neurogenic processes are used in the combined therapy of dementia and memory affections. Today a number of preparations that have antioxidant properties, such as a-tokopherol and its analogues, a-lipoic acid, mexidol, extract of Ginkgo Biloba, idebenon (synthetic analogue of co-enzyme Q10), memantin, melatonin, cerebralizine and etc. are used.

A home-produced preparation -mexidol with antioxidant, membrane protective mechanism has neuroprotective and nootropic effect, reduces the degree of deficiency of central nervous system functions while aging, and has antiamnesia and antihypoxic effects. These effects of mexidol are combined with anxiolitic, antispastic, antistressor actions. Mexidol intensifies the effect of nootropines (pyracetam, memantin and etc.). It is used in the medical practice in the cases of different neurodegenerative diseases, including those that are accompanied by the memory disorders. The preparations of Ginkgo Biloba possesses nootropic activity and practically do not cause any side effects. Basic antitoxic, antioxidant properties are able to slow down aptosis and normalize the neuromediators and energetic processes in the brain neurons. Ginkgo Biloba is a relict plant, belonging to the class of giant plants that have been widely spread even in Mesozoic era. The plant's leaves contain terpen trilactoids; flavonoid glycosides of kempherol, kvertsetine and isoramnetine; bioflavonoids, alkaloids and a number of other substances. There are also neuroactive elements -magnesium, potassium, calcium, phosphorus, as well as iron and essential antioxidants such as selenium, manganese, titanium and copper in the plant.

Bilobil, Ginkgo Biloba, Revital Ginkgo, Bilobil forte, Memoplant, Tanakan belong to the most wide-spread preparations of Ginkgo Biloba.

It was proved, that the more substantial initial cognitive disturbances are, the more essential the nootropic effect of Gingko Biloba preparations is, and it is distinctly marked in the elderly age on the background of different kinds of cerebral organic pathology. Along with the improvement of the memory, the preparations improve also perception which is connected with the normalization of sensory system work, and in the first turn with the normalization of organs of hearing and vision. The usage of preparations of Ginkgo Biloba in Alzheimer's disease improves the patients' cognitive activity, but, unlike other preparations, the long-term therapy by Ginkgo Biloba does not result in the undesirable effects and economically is more preferable.

Nootropic effect of Ginkgo Biloba preparations combines with the anxiolitic and antidepressive effect, which is very important in the treatment of the patients with cognitive disturbances.

23. STROKES

Stepantsova A. – the 3rd year student
Scientific leaders – Epifantseva A.F., Teplishcheva M.M.

Cerebrovascular accident (from Latin "insulto"-"lump") - brain stroke is an acute disorder of cerebral circulation. Stroke is one of the most widespread diseases of the middle-aged and elderly people. In the economically developed countries the death rate from cerebrovascular accident takes the 3d place after the heart diseases and tumors.

The risk factors for the development of stroke are: hereditary predisposition to the vascular brain diseases; disturbances of fat metabolism; hypertension; obesity; insufficient physical activity; smoking; patient's age; repeated stresses and long-term nerve-psychic overstrain. In the case of combination of three or more factors the predisposition to stroke increases.

According to the character of the changes in the brain insults are divided into two large groups: hemorrhagic and ischemic ones (80% of all cases). Hemorrhagic stroke is a bleeding into the brain substance or under its coats (subarachnoid hemorrhage). Usually bleedings occur in the result of rupture of brain vessel caused by high arterial pressure. On the contrary, the cause of ischemic stroke is an insufficient blood supply of some section of the brain as a result of arteriostenosis or full arterial occlusion. Sometimes a combination of these two types of stroke occurs. Hemorrhagic stroke is more common at the age of 45-60 years, approximately with the equal frequency both in males and females. As a rule, it occurs suddenly, during the day time, usually after anxiety or sharp physical overstrain. Sometimes stroke follows after rushes of blood to face, headache, vision the subjects in the red color. The initial symptoms of hemorrhagic insult are sudden intensive headache, vomiting, disorder of consciousness up to its full loss. The presence of paralyses is conditioned by hemorrhage localization: in the affection of the right or left hemisphere the paralysis of arm or hand in the opposite side of the body develops; in affection of the cerebral trunk the paralyses are less marked, but there is an impairment of the face innervations. Subarachnoid hemorrhages are often accompanied by severe headache, nausea, vomiting, and increase of body temperature.

To determine the character of the disease at the first hours is often impossible, that is why the medical measures should be aimed at normalization of breath, cardio-vascular activity, homeostasis and prevention of pneumonia, thromboembolia, bedsores. Medicinal stimulation of the respiratory center is not purposeful in such case.

Ischemic stroke is more common in middle-age and elderly people, but sometimes it may develop in the young persons. Sometimes the doctors turn out well to determine the connection between the initial manifestations and previous hard physical loading, influence of emotional factor, alcohol consumption, hot bath and etc. Ischemic stroke may develop in any part of the day, but often it occurs in the morning or night. Quite often dizziness, disturbance of consciousness, darkness in the eyes precede to ischemic stroke. Prognosis of the patient state is largely determined by the sections of brain damaged. Ischemic insult often develops during several hours, gradually numbness and weakness in arm or leg on one side of the body increase. These manifestations are accompanied by numbness of a half of face, speech disturbance (in the process in the left hemisphere), dizziness, and headache. Sometimes both in ischemic and hemorrhagic strokes spastic attack and mental changes may develop.

24. CAT-SCRATCHES DISEASE

Yurasova E., Povkhovich Y. – the 2nd year students
Scientific leaders – Malchits M.V., Katina O.I.

Cat – scratches disease (syn.-benign inoculation lymphoreticulosis) is known in Russia since 1955 years.

Etiology: A person is infected in direct contact injuring the skin or bulbar conjunctiva. The localization of opening atrium place determines the further involvement of regional lymph nodes that drain the injured place of the skin.

Symptomatic and courses: Incubative period lasts from 3 to 20 days (more often 7-14 days).

Clinical manifestations: 1) the eyes forms; 2) central nervous system injury; 3) cat – scratches in patients with HIV.

Stages of disease: A small papule with colonic skin hyperemia appears on the place of closed scratch, then it transforms in vesicle and a small ulcer.

Arrangement: The primary effect often appears on hands, face, neck, lower extremities. General condition is satisfactory. Regional lymphadenitis is a permanent and characteristic sign of the disease in 15-30 days after the contamination. More often cubital, axillary and cervical lymph nodes are injured. Fever (1 week) is accompanied with other symptoms of the disease. They are weakness, headache, and anorexia (1-2 weeks). The dimensions of enlarged lymph nodes are from 3 to 5cm. Nodes painful at palpation are not connected with surrounding tissues. In some patients injured lymph nodes suppurate, forming yellow – green pus and the enlargement of liver and spleen is marked for 2 weeks. The eye forms of the disease are registered in 4-7% of patients and remind the oculoglandular syndrome (Parinaud`s conjunctivitis)/ as a rule only one eye is injured. Changes in central nervous system are registered in 1-3% of patients. They appear as encephalopathy, meningitis, radiculitis, polyneuritis, myelitis with paraplegia. Neurologic symptoms are accompanied with a high fever, unconsciousness and coma.

Diagnosis and differential diagnosis:

The diagnosis may be corroborating by micro examination of blood, and molecular – genetic examination of DNC agent from patient's bioptat.

25. EPIDEMIOLOGY OF HELMINTHISMES IN THE RF AND THE AMUR REGION

Dukhovny E.A., Oliferov D.A. – the 2nd year students
Scientific leaders – Prof. Gordienko E.N., Katina O.I.

Helminthismes represent the extensive group of diseases substantially defining a health of the population. Annually 2 million cases of helminthoses are registered in Russian Federation only. In opinion of experts, the level of diseases is much higher, and the reason of it is in inadequate and insufficient diagnostics.

More than 250 helminthes are described in the world, in Russia only 30 helminthes are widely prevalent. Enterobiasis, ascariasis, trichocephaliasis, hymenolepiasis, trichinosis and trematodoses are most important and valuable in clinical practice. Distribution of helminthismes depends on the set of climatic, social and economic conditions. The level of diseases has increased in the beginning of 21 century, because the political situation was destabilized at the end of 1980's years. According to WHO opinion, today helminthismes are the forgotten problems. Underestimation of their medical and social importance is observed all over the world. It is a very dangerous fact.

In territory of the Amur Region enterobiasis is the most frequent helminthosis (339,2 in 100000 cases in 2006). Ascariasis is endemic invasion of the region. In 2006 the level of

disease has made 58,13 in 100000. Epidemiological situation with trichuriasis is unsuccessful. In 2006 the level of disease has made 1,13 in 100000. Cases of trichinosis are registered more often in connection with increase of use of insufficiently thermally processed meat of wild animals.

Helminthes render immunosuppressive effect for increase of promotes survival rate in human organism. Strongyloidiasis is considered as a HIV-associated disease.

Recent methods of molecular biology, such as PCR and nested-PCR, are already introduced in practice of parasitological diagnostics. Thus, helminthismes represent an unresolved and valid problem for humanity in 21 century.

Understanding importance of the this problem for physicians and realizing expediency of deeper studying of helminthismes, thematic methodic recommendations devoted to a problematic of this actual and unsafe diseases for optimization of training and amplify of a level of knowledge are made on Chair of Biology. Now research work still continues.

26. MARKERS OF THE GASTROINTESTINAL TRACT FUNCTION

Chekmaryova V.N. – the 6th year student
Scientific leaders – C.M.Sc. Sulima M.V., Teplishcheva M.M.

APUD is functionally active system of neuroectodermal origin. The cells of APUD-system are common for various tissues of gastrointestinal tract (GIT), paranglias, different endocrine organs (hypothalamus, hypophysis, suprarenal glands, thyroid gland, pancreas and etc. These cells are not united into glandular structure in comparison with the cells of endocrine glands. They are located between other cells of mucous layer and their apical ends reach the lumen of GIT. The typical properties of the system are the ability to absorption and accumulation of persecutors of biogenetic amines and their further decarboxylation. As a result, the biologically active substances acting as hormones and neuromediators are formed and secreted. Some hormones (e.g. somastastin) can fulfill the both functions.

APUD-system realizes endocrine, neuroendocrine and paracrine functions. Biologically active polypeptides regulate the motor and secretory activity of various organs such as gullet, stomach, pancreas, liver, and gallbladder. They influence on the activity of the number of secretory glands and reveal some common metabolic effects.

APUD-system of digestive organs secretes the following specific polypeptide hormones: bombesin, P substance, motilin, serotonin, somastastin, vascular intestinal polypeptide (VIP) pancreatic polypeptide, glucagons, insulin, gastrin, enckephalin, secretin, cholecyctikin, gastro inhibiting intestinal polypeptide (GIP), neurotensin. Investigation of the hormones characterizing the function of incretory apparatus of GIT and pancreas plays the significant role in the diagnosis gastroenteropancreatic endocrine tumors (GEPET). The most common forms of GEPET are insulinoma, gastrinoma (Zollinger-Ellison syndrome), glucagonoma, syndrome of Werner-Morrisone, tumors contributing to the development of carcinoid syndrome and hormonally inactive endocrine tumors (tumors from endocrine cells but they are not able to secret any hormone).

27. ACTUAL METHODS OF OPERATIONS IN REFRACTIVE SURGERY

Dukhovny E.A. – the 2nd year student
Scientific leaders – Prof. Gordienko E.N., Katina O.I.

Refractive eye surgery is any eye surgery used to improve the refractive state of the eye and decrease or eliminate dependency on glasses or contact lenses. This can include various methods of surgical remodeling of the cornea or cataract surgery. Today the most common methods use the energy of excimer lasers to reshape curvature of the cornea. Successful refractive eye surgery can reduce or cure common vision disorders such as myopia, hyperopia and astigmatism.

There are four methods of operations in refractive surgery.

Flap methods. Excimer laser ablation is done under a partial-thickness lamellar corneal flap.

Laser Assisted In-Situ Keratomileusis (LASIK). The surgeon uses a microkeratome to cut a flap of the corneal tissue (usually with a thickness of 100 – 180 micrometres). The flap is lifted like a hinged door, but in contrast to ALK, the targeted tissue is removed from the corneal stroma with an excimer laser. The flap is subsequently replaced. Another method of creating this flap is by using a procedure called IntraLasik, in which a femtosecond laser is used to create the flap. Proponents of this method tout its superiority over traditional LASIK, but there are no conclusive independent studies to prove that this is a true statement.

Automated lamellar keratoplasty (ALK). The surgeon uses an instrument called a microkeratome to cut a thin flap of the corneal tissue. The flap is lifted like a hinged door, targeted tissue is removed from the corneal stroma, again with the microkeratome, and then the flap is replaced.

Surface methods. Excimer laser is used to ablate the most anterior portion of the corneal stroma. These procedures do not require a partial thickness cut into the stroma. Surface ablation methods differ only in the way the epithelial layer is handled.

Photorefractive keratectomy (PRK). PRK is an outpatient procedure generally performed with local anesthetic eye drops (as with LASIK/LASEK). It is a type of refractive surgery, which reshapes the cornea by removing microscopic amounts of tissue from the corneal stroma, using a computer-controlled beam of light (excimer laser). The difference from LASIK is that the top layer of the epithelium is removed (and a bandage contact lens is used), so no flap is created. Recovery time is longer with PRK than with LASIK, though the final outcome (after 3 months) is about the same (very good).

Corneal incision methods. Radial keratotomy uses spoke-shaped incisions (usually made with a diamond knife) to alter the shape of the cornea and reduce myopia or astigmatism; this technique has now been largely replaced by the other methods (that use excimer laser). Arcuate keratotomy is similar to radial keratotomy, but the incisions on the cornea are done at the periphery of the cornea. Arcuate keratotomy is used to correct astigmatism.

Other methods. Thermal keratoplasty is used to correct hyperopia by putting a ring of 8 or 16 small burns surrounding the pupil, and steepen the cornea with a ring of collagen constriction. Laser thermal keratoplasty is a no-touch thermal keratoplasty performed with a Holmium laser, while conductive keratoplasty (CK) is thermal keratoplasty performed with a high-frequency electric probe. Thermal keratoplasty can also be used to improve presbyopia or reading vision after age of 40.

28. EXPANSION OF SCIENTIFIC ANATOMIC RESEARCHES IN THE SECOND HALF OF THE XVIII CENTURY

Andryushko I.N. – the 2nd year student
Scientific leaders – Ass. Pavlova A.E., Teplishcheva M.M.

In development of Russian anatomy XVIII century was marked by intensive accumulation of the facts, their description and ordering. Regular researches have led to to many important opening. Works of Russian anatomists enriched world science and showed a high methodical and methodological level of researches. Already in the middle of XVIII century Russian doctors conducted sharp struggle on the statement of domestic materialistic medical science. Among them the first Russian anatomist - academician A.P.Protasov, professor K.I.Shchepin, S.G.Zybelin, P.I.Pogoretsky, M.I.Sheyin, N.M.Maksimovich-Ambodik, A.M.Shumljansky, M.M.Terehovsky, N.K.Karpinsky.

The materialistic approach to the general problems of anatomy stimulated an orienta-

tion of scientific researches on connection with the nature, on revealing of the general laws in development of natural-science performances, theories and hypotheses.

Further, progress of anatomy in Russia to the middle of XVIII century has defined the main way of its development, as directed on satisfaction of searches of medical practice, on the sanction of those problems which were put with a life. Professors - academicians, and also practical doctors all have more liked belief in necessity of a profound knowledge of a structure of a body of the person for understanding of the nature of pathological processes, and also for effective medical influence on them.

Rather quickly scientists - anatomists, creating anatomy in Russia on firm scientific bases, were convinced of compulsion of anatomic knowledge for the doctor in all spheres of his activity. Became abundantly clear, that without full and firm knowledge of anatomy it is impossible to develop neither the theory, nor practice of medicine. And by that it is impossible to carry out public health services, the need in which state bases began to appear more clearly.

For achievement of this problem in anatomic researches at work in the Academy of sciences made use of all experience of global science available of scientists, all accessible means and methods of research.

The high level of scientific researches has provided the results answering standards of global science. It meant, that Russian anatomy has achieved the parameters corresponding to the international experience as in methods, so willows results of researches.

In this respect M.V.Lomonosova's direct pupils - the professor of anatomy K.I.Shchepin and academician A.P.Protasov have much made first of all.

29. ANATOMY DEVELOPMENT IN UNION REPUBLICS

Golova A., Shultz O. – the 2nd year students
Scientific leaders – Ass. Pavlova A.E., Katina O.I.

In Soviet Union the national problem was considerably solved in short period. In all union republics medical institutes were created, activity of chairs of anatomy, republican branches of the All-Union scientific organization of anatomists was developed.

The Ukrainian Soviet Socialist Republic reached the big successes in development of anatomic researches. There were 14 medical institutes and medical faculty at Uzhgorod University by 80th year in the USSR. The Kharkov and Kiev anatomic schools studying anatomy of microscopic glands and specializing in the branch of lymphology were opened. The heads of the chair of anatomy of the Odessa medical institute N.S.Kondratyev (1887-1951) and F.V.Volynsky (1890-1966) extended a number of conceptions in nervous system morphology. The works of E.P.Melman who was the head of the chair of anatomy of Ivan-Frankovsky medical institute in anatomy of vegetative nervous system and collateral circulation were noted. Actual problems in neuromorphology were worked out in Crimea medical institute. V.M.Ziablov carried out the investigations connected with the stimulation of regenerative processes in a spinal cord after its trauma. The university was opened in Baku in 1918. The investigations in peripheral nervous system were carried out on the chair of anatomy of this university. The first university in Minsk was opened in 1921. S.I.Lebedkin (1886-1942), the graduate of the Moscow University, headed the chair of anatomy in this university. A.N.Natishvili (1878-1959) was the head of chair of anatomy of the Georgia medical institute since 1921 to 1959. He was the author of works devoted to anatomy of human intestine and intestine of animals. Academician of ASM of the USSR A.D.Zurabashvili was the founder of the doctrine connected with the cerebral cortex synapse architectonics. The object of investigations in medical universities of Uzbekistan was the structure of nervous system, collateral circulation, adaptive changes in the experiment, research in aged anatomy.

A.R.Rahishev made experiments that proved the stimulating role of laser radiation on working and regenerating functions. There were 5 medical institutes in Kazakstan in 1972. Chairs of anatomy of Armenian, Kirgizian, Turkmenistan, Tadjikistan medical institutes made investigations connected with: the problems of rectoration of violated blood flow (A.L.Leites 1926-1977); changes of organs and tissues in cases of the discharged atmosphere and lower partial pressure of oxygen while being in a high altitude (I.A.Rahimova); morphologic investigation on the chair of anatomy of the Latvian medical institute. Valuable anthropologic researches were carried out in Lithuania.

Capitals of union republics began to give the bases for carrying out morphological conferences. The first Belarus conference of anatomists, histologists and embryologists was in 1957 in Minsk.

30. THE FOUNDATION OF RUSSIAN ACADEMY OF SCIENCES. THE DEVELOPMENT OF SCIENTIFIC RESEARCHES IN ANATOMY. M.V.LOMONOSOV AND HIS ROLE IN THE DEVELOPMENT OF NATURAL SCIENCE AND ANATOMY

Yezhevsky E., Lyakhov M. – the 2nd year students
Scientific leaders – Ass.Pavlova A.E., Katina O.I.

The progress of the science at present is greatly impressive but we shouldn't forget that the current state of science has been prepared and become firmly established by its previous way of developing. More over there have been such phases which denote the new state of science after passage from one epoch to another. Such epoch for the Russian science is the life and work of M.V. Lomonosov. The progress of the science in our country has been predetermined by works of many scientists. Lomonosov occupies the leading place among them. We should appreciate the certificate of the degree of candidate of medicine he got when he graduated from Magdeburg University.

The greatest Russian philosopher – materialist, first – rate scientist who could pass ahead his time Lomonosov predetermined the ways of further sciences progress. We could say that the importance of scientific anatomy for natural science and medicine was emphasized for the first time. M.V. Lomonosov in his article "The word about profit of chemistry" (1751) indicate directly that we could debate about human body if we don't know neither combination of bones and joints for its strengthening nor the location of muscles for movement, the spreadins of nerves for feeling the location of internal organs for preparing,the gastric juices, the length of sinews for juices circulation and other organs of this wonderful building.

According to Lomonosov the knowledge of building and virtue of the body for the doctors is very important for the evaluation of health condition of the sick person. It's necessary to understand the reason to cure the illnesses. According to Lomonosov the reasons of disturbed health could be understood through the knowledge of human virtues. Thus it is quite clear why M.V. Lomonosov paid so much attention to anatomy and physiology.

A lot of his statements could be directly relevant to anatomy. He determined perfectly the place of anatomy in clarification of functions of human organism.

Lomonosov wrote: "Anatom being physiologist must take from physics the reasons of the movement of the body".

Very important theoretical theses are belonged to him. According to them the idealistic points of view on building of the human body were rejected. Thus he paved the way to scientific anatomy based on materialistic positions.

Another anatomy-physiological concept of M. Lomonosov was the understanding of the main functions of human organism. According to Lomonosov the main function was

movement and the most important one-blood movement was the only reason of death.

M.V. Lomonosov was attracted by the physiology of sense organs. He found the confirmation to his theories in rise and transmission of sensation. The doctrine about the nature of influence of external material world upon sense organs was based on the theory of so called compatibility. The principle of compatibility was first introduced to the science by Lomonosov.

His opinions about psychical functions of the human are also of great interest. His positions were written in the article "About health preservation"; Lomonosov was an interpreter of the article.

His points of view were assimilated by many progenies.

31. PRIMARY MULTIPLE SYNCHROUS CANCER OF STOMACH AND SIGMOID COLON

Ognyanova K., Timoshenko V. – the 3rd year students
Scientific leaders – Ass.Prof. Volkov L.A., Teplishcheva M.M.

Primary multiple cancer (PMC) is a combination two more malignant neoplasms differentiated according the histological structure and localization and developing synchronically or in different intervals metachronically.

The frequency of primary multiple cancer of the stomach and sigmoid colon makes up 0, 5% of the stomach gastro-intestinal tumors.

Clinical picture of primary multiple cancer is determined by the symptoms of each tumor and depends on localization.

The up-to- date diagnostics of PMC includes the complex investigation of various organs and systems in the case of the disturbance of their function.

PMC is treated with combined and complex method with application of chemotherapy and X-ray action.

Two patients with PMC were treated in the surgical department of municipal clinical hospital. One patient had been operated on the thyroid cancer and in 8 years sigmoid colon cancer was revealed. Radical operation-left side gemycolectomy with application of transversorectal anastomosis was performed. Another patient was diagnosed synchronous cancer of the stomach and sigmoid colon.

The patient T., at the age of51 years, was admitted to the surgical department with the constant complaints of boring pain in epigastrium, regurgitation, periodical constipation. He had been ill for 5 months, when he felt uncomfortable sensations, hardness in epigastrium, decrease of appetite, inconstant stool, changing into constipation. During the last two weeks the increase of pains in epigastrium, growing weakness, quick malaise, abdominal distention, thick stool with dark blood and mucous were noticed.

Objectively: the condition was satisfactory. Skin and mucous were of correct color. In the lungs respiration was vesicular, the rales were absent. Heart sounds were clear, rhythmic. Pulse was 72 beats per minute. Arterial pressure - 130/40. Tongue was moistured, clean. Abdomen was of right form. On palpation: moderate tenderness in all sections. Liver and spleen were not enlarged, ascites was not revealed. On rectal palpitation no pathologic changes were revealed.

X-ray and endoscopic examination revealed the tumor of antrial part and body of the stomach. Investigation of tumor slides found the cells of malignant tumor. Investigation of large intestine revealed circular exophytis saucer-shaped tumor in the size of 4-3 cm. in sigmoid colon. The operation confirmed the presence of tumor in the stomach and sigmoid colon. The radical simultaneous operation, gastroectomy with application of esophagus-small intestinal anastomosis and left side hemo-colectomy with application of transversorectal

anastomosis was performed.

The diagnosis of primary multiple synchronous was confirmed by histological investigation: low differential stomach cancer and adenocarcinoma in the sigmoid colon. The postoperative period lasted without complication. On the 17th day after operation the patient was discharged from the hospital for out-patient treatment in oncology - dispensary.

32. RISK FACTOR AND EFFICIENCY OF ELECTROPULSE THERAPY IN PATIENTS WITH CARDIAC FIBRILLATION

Mostovaya S. – the 5th year student
Scientific leaders – Vakhnenko U.V., Gudkina T.A.

Cardiac fibrillation it is prevalence widespread form of cardiac arrhythmias, which occupy the second place after extrasystolic arrhythmias. Paroxysmal form of cardiac fibrillation complicates course of many heart diseases, passing in the constant form, paroxysmal form essentially reduces quality of a life, and quite often is the reason of disability, and sometimes death of patients. Cardiac fibrillation meets among persons older 60yr in 14 %, and more senior 75 yr - in 10 %. As a rule, men have this diseases in 3 times are more often than women. The analysis of literature suggest, that cardiac fibrillation generally occur at a heart organic pathology, namely ischemic heart diseases, mitrale stenosis, thyreotoxicosis, myocardial diseases. Frequently many authors demonstrate that obicity one of the most important risk factor which could lead to cardiac fibrillation. The investigations suggest that with increased anterioposretor left atrium size more than 40 mm, the incidence of occurrences cardiac fibrillation increases from 3 to 55%, and increases more than 55mm the incidence will consists 100%. Currently as means of the first choice for restoration sinus rhythm restoration are considered antiarrhythmics preparations of the first and third classes. However, the effect of the drugs decreases when period of cardiac fibrillation existence is longstanding, and then electropulse therapy is more preferable.

Purpose: The purpose of the study was to determine dependence of electropulse therapy efficiency on structural and functional changes left atrium and etiological factors of cardiac fibrillation.

Materials and methods: On base of cardiaosurgical center of the Amur state medical academy was examined 47 patients, there were 34 men and 13 women between 29 and 63 years of age with cardiac fibrillation. Electrocardiogram, echocardiography and measurement of basic anthropometric date were carried out when patients admitted to the hospital. Electropulse therapy was performed for all patients in order to sinus rhythm restorations.

Results: The most frequent contributing factor of cardiac fibrillation at 35 person was ischemic heart diseases and in 10 cases it was rheumatic heart diseases, postmyocardities cardiosclerosis and infective endocarditic. Moreover, half of patients had obicity.

Echocardiography results have allowed us to reveal pathological changes of heart structures and intracardiac hemodynamics abnormalities being the pathogenetic factor of development of cardiac fibrillation. Left atrium cavity distention which results in decrease in reducing ability and blood stagnation generally connect with tromboembolic risk at cardiac fibrillation. Left atrium dilatation was observed in all examined patients. Intracardiac hemodynamics abnormalities like left ventricular end-systolic elevate up to 98 ml and end-diastolic volume up to 165 ml in decrease stroke blood volume to 70 ml was revealed. Also, it has been noted significant diminishes of left ventricular ejection up to 46 ml. All patient after correspond preparations indirect anticoagulatics and antiarrhythmics drugs had been carried out electropulse therapy in order to sinus rhythm restorations. The advantages of sinus rhythm restorations is increase in tolerance to physical exertion, thus risk of thromboembolic complications decreases, absence of necessity for conrollable anticoagulation therapy and improvement of patient life quality. Direct positive impact from electropulse therapy was

observed in 45 patients or in 96% event, whereas electropulse therapy proved to be ineffective in 2 patients (or 4 %) which had the left atrium size more than 50mm.

Conclusion: Ischemic heart diseases is the most frequent reason in the development of cardiac fibrillation. Furthermore, obicity is one of risk factors of cardiac fibrillation occurrence. Many literature facts exemplifies, that efficiency of electropulse therapy is due to not only duration of cardiac fibrillation, but also by the left atrium condition.

33. BIOPSY AS AN OBLIGATORY COMPONENT IN COMPLEX DIAGNOSIS OF LUNG CANCER

Ardaeva O., Kol O., Kurdyukova D., Sharipova E. – the 5th year students
Scientific leaders – Vlasov A.A., C.M.Sc. Fedik O.E., Yegorova V.D.

Lung cancer is a widely-spread form of malignant tumor and takes one of the first places in oncopathology of the Amur region. Nowadays the commonly accepted method of clinicoroentgenological examination of patients is not sufficient.

Many problems of differential diagnostics of diseases of respiratory organs can be solved with the help of different methods of biopsy. Biopsy gives the possibility to obtain the material for histological, cytological, bacteriological investigations and their results allow making the correct diagnosis.

There are several methods of taking the material for cytological and histological investigations.

Methods of biopsy are highly effective in differential diagnostics of lung disease, mediastinum, pleura and no doubt they must be included into the system of the complex examination on suspicion of lung cancer.

Maximal results of each method are achieved when optimal indications and strict maintenance of biopsy methods are used and the method which gives the best results and no doubt the best method for a patient should be chosen. Biopsy can be used only after careful X -ray examinations of a patient.

34. THE EFFECTIVENESS OF APPLICATION OF PROPEDIN-GEL AND MIFECTIN FOR UTERINE NECK PREPARATION FOR DELIVERY

Utkina T. – the 6th year student
Scientific leaders – C.M.Sc. Zaritskaya E.N., Teplishcheva M.M.

Insufficient cervical maturity before delivery is the prognostic factor of their anomalous course. It is very important to choose an optimal method of preparation of uterine neck for delivery. The aim of the present research was comparison of effectiveness of propedil-gel and mifegin application for uterine neck preparation for delivery.

The goals of present research were:

- to detect the effectiveness of modern drug application for uterine neck preparation for delivery and their comparative efficacy;
- to determine the special features of delivery course in both groups;

93 women in the period of pregnancy from 36 to 40 weeks were included in clinical reaserch. Propedil-gel was used in the 1st group and mifegin was used in the 2nd group (64 and 29 women respectively). For uterine neck preparation in the 1st group pregnant women got propedil-gel comprising 0,5 ml of dinoproston in disposable syringe with catheter for intracervical introduction. In the 2nd group mifegin was used per os and daily dose was 200 mg.

For the state value of uterine neck we used E.H. Bishop's scale. Initial state of uterine neck was evaluated as immature or insufficiently mature in all pregnant women (from 0 to 4 points). Pregnant women were from 16 to 32 years old and average age was 24 years.

44 women in the 1st group and 22 women in the 2nd group were primiparas (69 and 76 % respectively).

Drug effectiveness evaluation showed that single dosing of propedil-gel leaded to uterine neck maturation to 5 – 8 points in 55% and single dosing of mifegin – in 59% of cases. Repeated introduction was effective in 28 and 31% respectively. In spite of that therapy uterine neck maturation was not achieved in 17 % in the 1st group and 10 % in the 2nd group. That was the reason for delivery by ceasarian section.

Puerperal period in the 1st group only 1 case (1,5 %) was complicated with endometritis and the reason was insufficient sanation of genital tracts before the delivery. In the 2nd group endometritis at different developmental stages was diagnosed in 20 % (every 5th patient). This was connected with tight restriction occurrence for propedil-gel application which is genital infections absence in 3rd trimester of pregnancy.

Application of mifegin as monotherapy for uterine neck preparation were effective in 90% of cases and application of propedil-gel – in 83%. In our research the delivery course was more favourable on the background of mifegin treatment.

So, present research showed high effectiveness of propedil-gel and mifegin application for uterine neck preparation for delivery. But absence of the effect in definite % of cases and complications development need further investigation of modern methods of uterine neck preparation.

35. TREATMENT OF THE COMPLICATED STOMACH AND DUODENAL ULCERS

Volodeva O. – the 6th year student
Scientific leaders – C.M.Sc. Kravets C.B., Teplishcheva M.M.

The problem of complicated gastric and duodenal ulcers remains the urgency one despite of the significant successes of up-to-date medicine in treatment of ulcer disease. The main causes of such pathological conditions are untimely diagnostics at the early stages of the disease and also the mistakes made during the examination of a patient connected with human factor. At present there are a quite great number of diagnostic examination methods of the structure, morphology, function of the stomach and duodenum. The most common methods are the endoscopic, reongenological, morphological ones, the investigation of microflora, determination of acid-basic state. From the beginning of the 80s and till the present days magnet-resonance tomography (MRT) has become one of the most highly informative diagnostic methods. It is connected with the advantages of MRT in comparison with other methods of examinations such as non- invasion, full absence of ray exposure, possibility of Multiplan image, tissue contrast, absence of art factors from bone and gaseous structures, high differention of soft tissues.

The aims and tasks of the research: we developed the method of visualizing due to MRT aimed at the improvement of diagnostic quality of ulcer disease particularly of such forms as giant gastric ulcers, penetrating stomach ulcers.

Methods.18 patients with the large and giant stomach ulcers were examined in the Amur Regional Clinical Hospital. Average age was 49 years; the correlation between males and females was 4:1. Except the standard methods of examination made for the initial diagnosis to reveal complications in this group of the patients we used magnet-resonance tomograph TOSHIBA “OPART”. It consists in polypositional examination of the patient in MIP mode made on the previous contrasting of the stomach. The received data are processed by computer to get three-dimensional image. The obtained results allowed evaluate the localization of ulcer defect, its size, penetration in the close situated structures. The basic criteria were the absence of focus formations in other organs, first of all in the liver and retroperito-

neal par aortal areas, character of penetration and its spread and invasion, structural presence or absence of mucous, muscular and serous membranes.

Results. It was magnet-resonance investigation that allowed reveal the higher degree of verifications of complications in comparison with the results of examination of giant gastric ulcers by standard methods and MRT. Using MRT we could more definitely reveal the localization of ulcer defect and its sizes, expressiveness of per ulcerous torus and also the depth of penetration in the surrounding organs and tissues and the degree of the change of them.

Conclusions. The method offered has the number of the advantages such as absolute safety of the patients and medical staff, non-invasion character of the given method, possibilities of construction and additional processing of the obtained data strengthening the image quality.

We don't consider it purposeful to use the described method as the only method of diagnostics of complicated ulcers. It must be use personally in every case and also in combination with other diagnostic procedures for final verification of diagnosis.

36. FRACTURES OF THE THIGHBONE

Yuryev E., Vorontsov A. – the 2nd year students
Scientific leaders – Ass. Zherepa L.G., Yegorova V.D.

The thighbone may be fractured in the neck of the thigh, trochanters and along the whole thighbone. Different fractures of the upper third and middle third of the thigh are distinguished in relation to the body of the thigh.

The shortening of the extremity associated with the fact that long muscles beginning on the pelvis bones and fixated to the leg, pulling the lower end of the thigh and the leg upward is characteristic for all fractures of the thighbone. The position of the foot is also common for all fractures of the thighbone. It is as a rule rotated outside. It depends on the action of gravity.

We distinguish medial or intra-articular fractures and lateral or extra-articular (intertrochanteric or intratrochanteric) ones among all fractures of the neck of the thighbone. In the fracture of the thighbone the whole extremity is rotated outside.

In the upper third of the thighbone fracture (supratrochanteric fracture) the proximal fragment is displaced forward and outside associated with the action of m. iliopsoas. The distal fragment is displaced inside because of the action of the adducting thigh muscles and backward (the action of m. gastrocnemius).

Epicondylic fractures are dangerous because the distal fragment can injure the patellar artery and the tibial nerve and it is displaced backward due to the action of the calf muscle and the proximal end is displaced forward and inside because of the action of adducting muscles.

37. PREVALENCE OF MICROVASCULAR COMPLICATIONS IN PATIENTS WITH TYPE I DIABETES MELLITUS

Nesterova E., Makhonina N., Goncharova S. – the 4th year students
Scientific leaders – Prof. Naryshkina S.V., Ass. Tanchenko O.A., Yegorova V.D.

Diabetic mellitus takes the first place as a cause in the full loss of sight in patients aged 20-65. Among causes of the loss of sight in patients with D.M. retinopathy makes up 70%. Diabetic nephropathy and as a result of it chronic kidney insufficiency are the leading causes of mortality of patients with type 1 diabetes mellitus all over the world. The frequency

of the development of diabetic nephropathy makes up 35 – 40%. Many factors including the age of the disease, the duration of the disease, its type and genetic predisposition influence on the development of diabetic retinopathy and nephropathy. Clinical and experimental investigations showed that a number of different mechanisms such as the rise of the level of glucated hemoglobin, oxidation, and the rise of intracellular sorbitol, microvascular and hematologic changes, hyperlipemia can lead to the acceleration of the development of retinopathy and nephropathy on the background of diabetes mellitus.

The main cause of diabetic complications is hyperglycemia. Hyperglycemia is conditioned by the reduction of the utilization of glucose by peripheral tissues due to the lack of insulin or by the decrease of the amount of receptors to insulin. High glucose concentration influences directly on endothelial cells, basal membrane of capillaries. It is significant that the rise of the level of glycated hemoglobin in all by 1% increases the risk of the development of diabetic retinopathy by 2 times. The disturbance of hemodynamic factor associated with biochemical changes causes vascular lesions and the impairment of retinal perfusion and can lead to the formation of firm and soft exudates, microaneurism and retinal oxygenous deficiency to the growth of neovascularization. (I.I. Dedov, 2007). 46 patients (24 men and 22 women) with type 1diabetes mellitus aged 18 – 46 were studied. The majority of patients (61%) are young people aged 21 – 29 with the duration of the disease from 10 to 15 years. The level of glycated hemoglobin, the presence of proteinuria and and microalbunemia, indices of arterial pressure were estimated in all patients. Ophthalmologic examination was carried out. As a result of investigations diabetic retinopathy was revealed in 63% of patients, among them nonproliferative retinopathy was revealed in 53% of patients, preproliferative one in 31%, proliferative retinopathy in 16% of patients. The prevalence of diabetic retinopathy increased with the rise of the duration of DM: retinopathy was revealed in 10% of patients with the duration of the disease less than 5 years; in 52% with the duration of the disease from 10 to 15 years, in 90% of patients with the duration of the disease over 15 years. Diabetic nephropathy was revealed in 57% of patients. Nephropathy was revealed in 8% of patients with the duration of the disease less than 5 years, in 54% of patients with the duration of the disease from 10 to 15 years and in 89% of patients with the duration of the disease over 15 years.

It is interesting to note that only in 9% of examined patients the level of glycated hemoglobin A/c was less than 7% (the state of compensation): In 63% of patients the index of glycated hemoglobin exceeded 7,5% (the state of decompensation).

Thus the prevalence of microvascular complications in patients with type 1 diabetes mellitus is high. The achievement of diabetic compensation is the most important criterion in the prophylaxis of the development and progress of microvascular complications in patients with type 1 diabetes mellitus.

38. DOPPLER ECHOCARDIOGRAPHY IN DIAGNOSTICS OF LUNG HYPERTENSION IN PATIENTS WITH COPD

Bardov V., Bezzubtseva V., Boldyreva T. – the 5th year students
Scientific leaders – Ass.Prof. Lakotsenina O.Y., Yegorova V.D.

Lung hypertension in patients with COPD is a factor of progressing the disease, determining the prognosis of the ability to work and life of patients.

Aim. To estimate the degree of lung hypertension in patients with COPD by Doppler echocardiography in primary health care.

Materials and methods: 35 patients with COPD (22 men, 13 women) aged 51.3 ± 1.1 without associated pathology were examined. Among them 12 patients were the invalids of the 3rd group and 9 of the 2nd group. All patients were carried out Doppler echocardiography by the ultrasound scanning system «Acuson» 128 XP – 10 (Japan) using the device with

frequency of 2.5 – 3.5 MHz. Systolic pressure in the pulmonary artery was estimated as the sum of systolic transtricuspid gradient of pressure and pressure in the right auricle. Pressure in the right auricle was calculated in diameter of the lower hollow vein and its response to inhalation. During the coloured Doppler mapping the flow of tricuspid regurgitation was registered. In triplex regime of scanning with the help of uninterrupted Doppler we studied the velocity of the flow of tricuspid regurgitation. Results of research were statistically worked up according to generally taken methods.

Results. The index of systolic pressure in the pulmonary artery was slightly enlarged and made up 30.0 ± 0,8 mm Hg, in 8 (22,8%) of cases pressure in the pulmonary artery was normal. Patients with severe-mild course of COPD showed mild pulmonary hypertension (39, 0 ± 0, 6 mm Hg). Significant lung hypertension was registered in 83, 3% of patients with the severe course of the disease; its figures achieved 52.1 ± 0.9 mm.Hg. In all patients with extremely severe hypertension we determined severe pulmonary hypertension with high indices of systolic pressure in the lung artery (58.0 ± 0.7 mm.Hg).

Conclusions. Doppler echocardiography allows to determine the degree of lung hypertension and ability to work in patients with COPD.

39. PECULIARITIES OF PNEUMONIA IN PERSONS OF THE ELDERLY AND SENILE AGE

Kandaurova T., Snegirev A. – the 5th year students
Scientific leaders – Ass.Prof. Loskutova N.V., Yegorova V.D.

There is an important risk factor of the development of pneumonia in the elderly and senile age of patients. Pneumonia in persons over 60 years usually develops in anatomically changed lung parenchyma, in the disturbance of ventilation and perfusion. In connection with these peculiarities of pneumonia in elderly people is often characterized by a scanty clinical symptomatology. The aim of our work was to study peculiarities of pneumonia in persons of elderly and senile age. Retrospective analysis of 186 case histories of patients undergoing the treatment in the pulmonologic department of the town hospital №1 in Blagoveshchensk was carried out within 2002 – 2006. Among patients of elderly age men (62, 3%) prevailed, among persons of senile age women (68,6%) prevailed.

As a result of research it was established that 69, 2% of patients had scanty clinical symptoms of pneumonia. In the majority of patients over 80 cases proceeded atypically, and clinically it was manifestated by symptoms of the central nervous system (slowing, somnolence, weakness, disturbance of consciousness, changes of phychics, headache, giddiness), by the sudden appearance or progressing of respiratory, cardiac symptoms. The late address to a doctor significantly impeded the timely diagnostics of pneumonia. Thus peculiarities of pneumonia in patients of elderly and senile age obliterate clinical picture, frequently atypical course with prevalence of extrapulmonary symptoms and symptoms of decompensation of associated diseases, mild changes of indices of acute phase and the presence of polypathia. It impedes diagnostics and treatment and promotes the development of complications, impairs the prognosis and the course of the disease.

40. HRONIC BRONCHITIS IN WORKERS OF BROWN COAL OUTPUT

Gladun E., Bardov V. – the 6th year student, the 5th year student
Scientific leaders – D.M.Sc. Savinova M.A., Yegorova V.D.

Russian energetic strategy of long course forsees the priority use of coal as a main energetic resource, therefore the problem of pulmonary pathology in workers of the brown coal output is of great ecological and social importance. 53 persons aged 53.4±0.9, with the length of service 22.68±0.72 years and engaged in the open coal output were examined. The

professional structure of the group was presented mainly by machinists of excavators and their assistants (60.37%). The examination included clinical, roentgenologic, bacteriologic, immunologic, functional and laboratory methods, bronchoscopy and echocardiography.

Cough with the periodical (22.64%) or constant (77.30%) discharge of sputum was the main complaint of patients; dyspnea of tension worried 79.24% of persons, pains in the chest – 20.7%, weakness and sweating were in single cases. Objective examination revealed cyanosis of the liver nearly in the hall of patients, vesiculotympanic resonance and diminished breath sounds were revealed in two thirds of patients; dry rales were heard in the majority of patients, moist rales were determined rarely. The clinical analysis of blood showed that only ESR (erythrocyte sedimentation rate) exceeded the indices in the control group remaining within normal rates; indices of fibrinogen, ceruloplasmin, stalic probe and seromucoid were higher than in the control group. Bacteriologic analysis of the sputum showed the prevalence of pneumococci and neiseria association in 82% of cases. The reduction of T-lymphocytes helpers and suppressors, the rise of the B-lymphocyte synthesis, the decrease of the complement production testified to the development of secondary immunodeficiency. Roentgenologic examination revealed the potentiation of the lung pattern (58.49%), its deformation (84.90%), emphysema and bund of lung roots. The presence of cellular loop deformations of middle and lower divisions could result from the consequence of the dust production. Bronchoscopy showed the presence of atrophic endobronchitis in 31 persons and it can be estimated as a morphologic criterion of the dust influence at the minimal activity of inflammation according to J. Leimone (1.12±0.01). The function of the external respiration reduced to I-II degrees; the descending type of the disturbance of bronchial patency was established. Roentgenodensitometry of lungs showed the decrease of integrate, total and zone ventilation up to the 2nd degree. Partial tension of oxygen in comparison with the control group proved to reduce, but carbon dioxide to elevate. According to echocardiography the average pressure in the pulmonary artery and the time of the acceleration of the blood flow from the right ventricle exceeded the control indices.

Thus the peculiarities of bronchitis in people engaged in the open brown coal output were the scanty symptomatology, the descending type of the disturbance and atrophy of the mucous membrane of bronchi, deformation of middle and lower divisions of lungs observed on roentgenograms, the frequent development of emphysema, the secondary development of immunodeficiency and formation of the respiratory insufficiency according to the mixed type.

41. EFFICIENCY OF LAVITOL APPLICATION IN TREATMENT OF PSORIASIS

Ankudinova Y. – the 4th year student

Scientific leaders – Prof. Dorovskikh V.A., Ass.Prof. Melnichenko N.E., Afanaseva N.I., Polezhaeva N.A., Yegorova V.D.

Psoriasis refers to multifactorial diseases in which morphological and biochemical changes in a skin play the leading part on a background of a developing oxidizing stress. The expressed dermal polymorphism is characteristic for psoriasis from individual plentifully shelled papules or plaques of red color up to an erythrosis. In the development of the disease the progressing, stationary and regressing periods are determined. To prevent the expressed dermal displays of psoriasis we use Lavitol which refers to the group of polyphenolic bonds widely spread in the nature - flavanoids.

During per oral application the most part of flavonoids is actively blasted in an organism and excreted with urine and bile.

Material and methods:

The object of our research was biopsy of the changed skin in patients with psoriasis in the dynamics of the treatment, with the subsequent morphological and histochemical anal-

yses. Patients received preparation Lavitol in the form of 2, 5 % of ointment within 21 days.

Results:

During local Lavitol application the process of keratinization reduces, it shows keratopreventive action of the preparation.

Thus, it is possible to judge about the positive influence of the preparation on the albuminous exchanges in the skin and its stimulating action on the synthesis of mucopolysaccharides.

Discussion:

On the background of Lavitol application we observe psoriasis preventive effect. It is possible to stabilize structural lesions of keratinocytes, to reduce the reactive phenomena of microcirculatory bed of the derma.

42. ABSTINENT SYNDROME IN HASHISH DRUG ADDICTION

Zheglova M. – the 6th year student
Scientific leaders – Ass.Prof. Dudin I.I., Yegorova V.D.

The questions of the development of hasheesh drug addiction in the territory of the Amur Region are actual. There is a trend to the growth of the disease in the group of teenagers' population.

The average age of these teenagers is 11 years.

The abstinent syndrome forming the framework of hasheesh drug addiction is not recognized by all authors. It develops on the average within 12 ± 0, 7 months from the beginning of systemic abuse of cannabis .

To study the structure of the abstinent syndrome we have chosen 2 stages:

1. Dysphoric stage (2-3 days).
2. Astenodepressive stage (2-3 weeks).

There is a possible and atypical course in the connection with other narcotic materials.

The severity of the abstinent syndrome is defined on the scale "general clinical impression", (Alexandrovsky Yu.A., 2005 year)

- benign degree
- mild degree
- severe degree

According to the growth of the severity the of somatoneurologic disturbances there is a great number of severity defining the prognosis of the disease:

- social factors
- family deformations
- hereditary predisposition

Thus we came to the conclusion that the abstinent syndrome is formed during the second stage of the physical dependence on cannabis. It develops periodically, has degrees of severity and peculiarities of the duration in dependence upon the narcologic anamnesis.

43. MOXIBUSTION IN THE TRADITIONAL CHINESE MEDICINE AND ONNURI MEDICINE

Kravchenko O. – the 5th year student
Scientific leaders – C.M.Sc. Molchanova E.E., Rudenko A.I.

"The moxibustion would block the pathways to a disease; it safeguards the entries leading to solid and hollow organs; it gives rise to beneficial heat, clarifies the memory, and can bring cure to many disorders not amenable to any other therapy …"

Traditionally, the major indications to provide moxibustion were considered the signs of excessive Coldness energy in the organism.

The ju-therapy is subdivided into the burning and the heat moxibustion.
A moderate thermal impact produced on the sensory nerve endings would restore the tonic control and would stimulate the immunity.
The wormwood does appear as the material of choice for moxibustion.
The methods most extensively employed at present are those known as wormwood-coniform and wormwood-cigar ju.
Nowadays, very widely available are three wormwood cigars-based moxibustion techniques designated the fixed thermal one, nibbling, and pressing moxibustion procedure are very widely available.
In the Onnuri medicine moxibustion is as one of the most widely exploited aspects.
The moxotherapy is mainly applied to deal with the diseased conditions caused by excessive energies of Dryness or Coldness.
The warming up would tonify the Heat energy and sedate the energy of the opposing poise.
The knowledge of the axial interrelationships between energies enables the therapist to use ju -therapy for harmonizing the Eight-Origin constitutions.
In the Onnuri medicine the big wormwood cigars, cones and the specific wormwood sticks (cigarettes) intended for stimulating the energy points.
The wormwood sticks called mini- and micromoxas can provide for a rather intense local heating of the selected treatment points.
Ju-therapy is helpful under most difficult conditions when all other approaches remain inefficient.

44. PECULIARITIES OF THE RELIEF OF THE VERTEBRAL ARTERY'S INTERNAL SURFACE ACCORDING TO THE SCANNED ELECTRONIC MICROSCOPY

Litovchenko E. – the 2nd year student
Scientific leaders – Ass.Prof. Labzin V.I., Posokhova A.A.

The investigation of arterial vessels' microrelief has a great theoretical and practical meaning as it allows to find out the character of parietal hemodynamics that in its turn lets to consider questions of arterial system's pathology (atherosclerosis, hypertension etc.). The material concerning the microrelief of the internal surface of the vertebral artery which nourishes the brain with blood is given in this work. It is determined in scanned electronic microscopy of the vertebral artery's internal surface that it is presented with folds, sulci and cristae of various form, size and length. If folds are increased to 300 times they have a form of parallel lines stretching along the axis of the vessel. There are no breaks between separate components of the line along the length. Folds do not disappear at all but smoothly pass one into another. Their length is 2-4 mm. and width – 10-15 mkm. The space between folds is approximately their width (11-16 mkm.) and the number reaches 7-9 on 100 mkm^2. The form of folds is determined by depth and width of interfolded sulci. Narrow and deep sulci make folds in the form of «rollers». Wide and small – in the form of pointed and flat formations. The part of the latter is divided by diametrical sulci or cristae into segments, the number of which varies from 3 to 8 along one. The folds can be long and short depending on the length. Long folds have longitudinal orientation and lie parallel to each other forming a massif resembling «a washing board». Separate parts of the massif (in the form of fixings between long ones) are presented by short folds which are situated analogously but have big width and form zones of «separation» into second elements more often. All structures of the massif are subjected to wavy bends and diverge from the central axis to 2-4 mkm. Contours of the existing folds begin to change in crossing of the main trunk's intima into daughter vessel and position of endothelium's cells becomes more chaotic. If they were situated parallel to the axis of the vessel before, they change their orientation into oblique or diametrical in entrance

sections. Folds themselves are concentrated regarding each other in the zone of change and pass smoothly on a new channel twisting spirally. Thus, summing up, we consider that the received data deepen the notion about peculiarities of the structure and hemodynamics of the vertebral artery.

45. DIAGNOSTICS AND TREATMENT OF NEUROCIRCULATORY DYSTONIA

Otkidach E.A. – the 6th year student
Scientific leaders – C.M.Sc. Sivyakova O.N., Posokhova A.A.

30 persons aged 20-35 years were examined. There were 20 persons of the main group with NCD and 10 practically healthy persons from the control group. Examination of patients was carried out on the basis of the out-patient department of the Amur Regional Clinical Hospital. The average age of patients of the main group made 27,8 ± 1,3 years. The control group was equal to the main group by the age and sex.

The state of vegetative nervous system was determined with the help of Vein's test Kerdo's index and Hildebrandt's factor were calculated. Cardiointervalography according to Bayevskiy method with the help of the system "Rhythm", veloergometry with diagnostical system "Valenta"were performed.

The patients of main group were given Prosulpin dosing 150 mg per day as pathogenetic therapy with the vegetoregulating, antidepressive and antiperturbed purpose during two weeks.

Control for treatment was carried out with the help of the methods mentioned above.

46. PITUITARY BODY

Moiseenko A. – the 2nd year student
Scientific leaders – Kozlova V.S., Posokhova A.A.

Pituitary body is called the main endocrine gland as the function and the structure of such endocrine glands as thyroid, adrenals cortex and sexual glands depend on the activity of hypophysis producing appropriate tropic hormones which enter the blood and influence on the mentioned peripheral glands of internal secretion. Its sizes are 1, 5x2x0, 5 cm. in the adult. Pituitary body is subdivided into adenohypophysis and neurohypophysis. Adenohypophysis consists of an anterior lobe, a tuber part and an intermediate (middle) lobe. Neurohypophysis includes posterior lobe, a funnel (infundibulatory part) and a median eminence of a gray tuber. Nowadays it is established that such hormones as somatotropin, prolactin, thyrotropin, corticotropin, folitropin, lutropin and lipotropin are produced in the anterior lobe of the pituitary body. Melanotropins are synthesized in the intermediate lobe. Folitropin and lutropin are united in the group of gonadotropic hormones.

47. ASSESSMENT OF COLD STRESS

Sudakova V. – the 3rd year student
Scientific leaders – Ass.Prof. Tikhanov V.I., Reshedko D.R., Yegorova V.D.

The combined effect of several climatic factors (air temperature, average radiant temperature, humidity and air velocity) and active level of the environment have cooling power. We found them to be cold stress for biological system. In this concept cold stress had two directions: acute cold influence and long cold loading that is cold adaptation. Acute cold may present a risk for the skin surface, extremities with the subsequent body cooling on the whole.

Cold adaptation causes metabolism of the whole organism not only the prolonged

cooling of the skin surface and cooling of the extremities. The estimation of concept of the acute cold influence and cold adaptation had different tactic receptions in the treatment of people. The estimation of all information on the cold influence was done in two ways: 1) specific necessity of a person behavior to avoid contact with cold and protect the organism by insulatiny clothing 2) the influence of pharmacological agents preventing destruction of the organism by cold.

48. CLINICAL MORPHOLOGICAL FORMS OF THE HEART ATTACK

Kolesova M. – the 2nd year student
Scientific leaders – C.M.Sc. Menshikova N.B., Rudenko A.I.

The heart attack is the circular necrosis of the cardiac|hearty,kind| muscle. It arises up sharply because of|owing to| absolute or relative insufficiency of coronal blood circulation. Morbidity from the heart attack is wide-spread|widespread| in a whole world. More frequent the persons of male sex are ill at the age of 40-65 years. It is associated with hard physical work, harmful habits (alcohol, smoking), great mental| loading. The heart attack is caused|called| by the presence of the concomitant pathology which has a bad|adverse| influence on the cardio-vascular system. Pathogenesis of the heart attack consists of ischemic|, necrotizing and scarring stages (organization). The spasm of narrow| coronal artery is|appears| especially important factor in development of the heart attack. It results in the damage of atherosclerotic patch. Thus a tissue thromboplastin enters the blood. It stimulates aggregation| of thrombocytes and formation of thrombuses. Thus|on this grow|, there are the morphological changes formed by a thrombosis and protracted|prolonged| spasm of coronary artery in cardiac muscle. These changes are caused by an acute ischemia. Later|consequent|, if blood circulation of this area|zone| is not enough, the dystrophy| changes of cardiac|hearty,kind| muscle end by necrosis. Organization of area of the heart attack comes when|inclusion| the complex of compensatory and adaptive| reactions is included. The hypertrophy of the cardiac muscle develops. The untypical| forms|shapes| of the heart attack meet in 2-10 % of cases|accidents|. They are difficult|complex| for diagnostics, because their clinical symptoms mask the present disease:

1) An asthmatic form|shape| meets in 5-10 % of patients with the heart attack. The cardiac|hearty,kind| asthma and acute edema of the lungs are developed in the first hours of the disease. They are associated with the acute falling of the contractile functions of the heart or with the acute increase|rise| of the blood pressure. The most bright symptom is asphyxia, thus in 50 % of cases|accidents| it is not accompanied by thoracic| pain|anguish|, especially in old-ager. |oldsters|

2) An abdominal|shape| form|shape| is observed|exists| in 2-3 % of cases. It is caused by affection |accidents|ItIthe back wall of the left ventricle or the apex|top| of the heart. Patients feel painful attacks in the upper|upper,top| half of the stomach, vomiting, sometimes hiccup, tenesmus|, diarrhoea, cold-sweat. Patients often associate their condition with poisoning by food. But at this form|shape| character| of ECG| is typical for the heart attack.

3) A cerebral form|shape| arises up at 3-5 % of patients. It|it| is characterized|described| by neurological symptomatology. |They are the changing violations of the cerebral blood circulation, the ischemic stroke, the hemi paresis, aphasia and loss of consciousness and etc. These symptoms are connected with the fall-off of the cardiac|hearty,kind| discharge in the acute heart attack, also with the violation of cardiac|hearty,kind| rhythm (up to fibrillation| and blockade of the heart).

4) The painless| form|shape| of the heart attack is sometimes observed |exists| in old or physically very weak people who usually abuse of alcohol. Such patients|diseased| experience|feels| only discomfort in the chest|chest|. However, clinically the disease shows up extrasystole |, tachycardia|, rarer|thinner| bradicardia|, the low blood pressure.

5) An oedematous form|shape| is observed|exists| rarely|seldom|, mainly in the heart attack of the back surfaces of the left wall ventricle and interventrical| septum, sometimes myocardium of the right cardiac chamber. Thus insufficiency of the right cardiac chamber develops quickly; the edema of lungs and hydroperitoneum are developed.

49. M.A.MASHKOVSKY – THE FOUNDER OF RUSSIAN PHARMACOLOGY

Kolesova M., Idiatulina V. – the 3nd year students
Scientific leaders – C.M.Sc. Bityutskaya L.G., Anokhina R.A., Rudenko A.I.

Michael Davydovich Mashkovsky - one of the founders of modern Russian pharmacology, the outstanding expert in the field of remedies creation. Michael Davydovich was born in Pinsk (Belarussia) in 1908 on the1st of March, in a family of the teacher. After graduating from a medical faculty of the Pirogov's II Moscow State Institute he began to work in department of pharmacology in All-Union scientific research institute. Michael Davydovich's formation as an expert in search and creation of new remedies came from here. Here his talent of the scientist was revealed. His first investigations were devoted to the breath pharmacology - the study of alkaloids from Russian vegetative raw materials. The part of these researches was included into the thesis "Materials on respiratory pharmacology" which was defended for a doctor's degree in 1939. In Megidze his first book "The new remedies" (reference book) was published at the end of 1941. It became the model of a famous book "The Remedies" and in 1950 Michael Davydovich received a rank of the professor. Thanks to Mashkovsky's researches in our country medicines appeared. Without them it is hard to imagine the practical public health service: Promedol, Aceclidine, Phencarol, Sinocarb and a number of others. In 60-70th years Michael Davydovich started to develop such directions of pharmacology, as biochemical pharmacology, pharmacokinetics, pharmacological reception, connection between experimental and clinical pharmacology, the use of the data about biogenic physiologically active substances for search of new medicines. The edition of his book "The remedies" in 1954 received an outstanding value for public health services in our country. His book was republished later 15 times (the last, shortly before the death of the author, was issued in 2005). For several generations of doctors this book became a desktop book not only from a point of guide edition view, but also as an objective source of the modern and constantly updated knowledge, concerning basic aspects of pharmacology. This unique edition made Mashkovsky the most known pharmacologist in our country. The high level of Mashkovsky's scientific merits was estimated by the election of valid a member of Medical Scientific Academy, a member of some foreign scientific organizations, the honourable president of the Russian scientific organization of pharmacologists, rewarding by many state awards, assignment of a rank of the Hero of Socialist Work (1991). Michael Davydovich lived the long and bright life which was the sample of service to a science and people. Results of his work will be required many years, and memory of this outstanding pharmacologist, the patriot and the citizen will live many long years.

50. PHYTOPREPARATIONS IN THE CORRECTIONS PROCESSES OF PEROXIDATION OF BIOMEMRANES OF LIPIDS INDUCED BY ULTRA-VIOLET IRRADIATION

Pushkareva V., Volovik L., Dyachenko M. – the 3rd year students
Scientific leaders – C.M.Sc. Simonova N.V., C.M.Sc. Anokhina R.A., Rudenko A.I.

At this moment the research of effects of influence of ultra-violet radiation for person's health is actual and duly in view of consequences of increased levels of ultra-violet irradiation on a surface of the ground because of an ozone exhaustion in a stratosphere which essential reduction last 10 years has occurred on a global scale. Ultra-violet beams subject cellular

membranes to modification, changing permeability of membranes and their transport systems, lead to a voltage system of antioxidative protection of an organism and can cause "an oxidative stress ", shown on molecular, cellular and organic levels. The similar stress is the pathogenetic moment in development of many diseases - inflammatory, broncho-pulmonary, cardio-vascular and etc. In this connection, search of the correction ways of the radio-induced oxidation in the conditions of a ultra-violet irradiation is actual because the creaseasing of adaptable opportunities of the person to damaging influence of ultra-violet radiation by the help of pharmacological means becomes an important moment in preventing of occurrence of diseases and pathological conditions. One of the most perspective medicinal groups in this direction of researches is adaptogens, increasing resistibility of an organism to the wide group of adverse factors of the external and internal environment.

The aim of work was to estimate the influence of the vegetable adaptogenes such as the Siberian ginseng, the rosewort, the root of licorice, and the juice of plantain to the resistance of animals to physical activity and intensity of lipid peroxidation in the biological membranes in the condition of UV-irradiation.

Materials and methods**:** the experiment was performed on the male albino rats (n=60) during 28 days. Animals were undergone the UV-irradiation in the conditions of UV-camera during 3 minutes daily. Animals were divided to the 6 groups: 1st- intact group, all rats lived in the standard conditions of the vivarium; 2nd – control group, animals were undergone the UV-irradiation for 3 minutes daily; 3^{d}, 4th, 5th, 6th – experimental groups, before the irradiation rats received the adaptogenes orally.

Results: our investigations have shown that daily UV-irradiation leads to the decreasing of rats resistance to physical activity and increasing of the lipid peroxidation products in blood serum (lipid hydroperoxides up to 39.4%, diene conjugates – up to 26.4% and malonic dialdehyde – up to 23.7%, $p<0.05$). Introduction of the phytodrugs leads to the significant increases of the swimming time duration in rats during the all days of the experiment and decrease the level of lipid hydroperoxides, diene conjugates and malonic dialdehyde in the blood serum of animals.

Conclusion: thus, we have confirmed the possibility of the correction of lipid peroxidation processes by introduction of vegetable adaptogenes, it should be mentioned that the juice of plantain and extract of the licorice root has more protective properties in lipid peroxidation and more significantly increase the stability of animals to the physical stress.

51. THE CEREBELLUM. THE CEREBELLUM SYNDROME

Brueva O., Denisenko I, - the 2nd year students
Scientific leaders – Zherepa L.G., Volosenkova E.A.

The cerebellum consists of two hemispheres and the vermis. In the human being the cerebellum hemispheres are more developed due to the vertical position of the human body in the process of walking. The cerebellum weight is 120-160 grams. It has three pairs of peduncles :the inferior cerebellar peduncles extend to the medulla oblongata, the middle cerebellar peduncles – to the pons and the superior cerebellar peduncles-to the midbrain or its quadrigeminal plate. The cerebellum is located in the posterior cranial fossa behind the pons and the upper part of the medulla oblongata.

Occipital lobes of the cerebrum are over the cerebellum.

The cerebellum has the following functions:

- regulates muscular tonus and posture;
- controls rapid, goal-directed and voluntary movements;
- directs slow goal-directed movements;
- coordinates movements by the posture supporting reflexes.

The cerebellum functions also determine the syndromes character.
Three main symptoms such as atony, asthenia and astasia are observed in case of the partial cerebellum damage.
Atony is a weakening of the muscular tonus.
Asthenia is characterized by weakness and rapid muscle fatigability. Astasia is characterized by the muscle tremor at the beginning and at the end of motion. In case of ataxia the patients walk with their legs apart, do unnecessary movements and rock slightly.

52. POLIMERASIVE CHAIN REACTION

Popova V. – the 2nd year students
Scientific leaders – Prof. Gordiyenko E.N., ass. Posokhova A.A.

Polymerasive chain reaction is an experimental method of molecular biology, allowing to obtain considerable increase of small concentration of nucleinic acid's certain fragments in biological material (test). This analysis is the most contemporary, the quickest and exact method of diagnostics of infectious diseases today. High sensitivity and specificity are the main preferences of the given method of diagnostics! PCR lets to diagnose the presence of pathogenes growing for a long time without resorting to laborious microbiological methods that is especially actual in gynecology and urology in diagnostics of urogenital infections and diseases sexually communicated. Also the diagnostics of viral infections such as hepatitis, HIV and others is carried out by this method.

Among the reasons checking the wide introduction of PCR method into clinical laboratory practice one may call insufficient level of medical workers' being in the know about methodologic approaches in its application and use. It is conditioned considerably by the conciseness of the period of PCR use for clinical diagnostics, limited information about its potential possibilities and peculiarities of application.

53. RELIEF ANATOMY OF THE HAND PALMAR SURFACE

Nevedomskaya N. – the 1st year student
Scientific leaders – Zherepa L.G., Matveyeva E.V.

Hand.

A proximal border of the hand is a cross line drawing 2 cm. above styloid process of the radius. The hand consists of the wrist, metacarpus and fingers. Radial and ulnar edges devide the hand into the anterior region or the palm and the posterior region or the back.

The relief of the hand is very reach and draws attention of the anatomists.

The hand palmar surface has some permament cutaneus folds – three of them are on the wrist. This is a distal fold formed from a pisiform bone; a middle fold corresponds to the fissure of the wrist joint; a proximal fold is formed from the styloid process of the forearm bones.

The palm has cutaneus lines: the central line is the main line, the proximal line is a cross one; a cross, distal line; and a cross, obligue one.

The central line is in the middle of the width of the hand and directs to the third digit base; the central line is a fine orientation determining the border between the external and middle fascial palm beds. The distal cross line of the palm is in the level of metacarpophalangeal joints. It's also called the ulnar line, as reaches the medical edge of the palm. The proximal cross line of the palm is 1 cm. more proximal than the previous one and generally reaches the lateral edge of the palm, that's why it's sometimes called the radial line. The obligue line of the palm passes along the medial rising edge of the thumb muscles.

The palmar digital and interdigital folds are well marked on the border of the hand palmar surface and the fingers. The small eminences are seen between the digits (fingers) under these folds in the spaces on the palm.

In the spaces between the eminences there are some grooved recesses on the skin that are well marked at the base of the digits in a straight position. Such grooves are due to the skin retraction knitted with the waves of the palmar aponeurosis and fibrous tendinous sheaths of the digits of the hand; the grooves are appropriate to the tendons projection of the superficial and deep flexors (II-V) muscles of the digits. Interphalangeal cutaneus folds are at the phalanges joint.

The main muscular eminences on the palm compose the thumb eminence or the tenor and a little finger eminence or the hypotenor. The muscles (a short muscle abducting the thumb and a short flexor of the thumb) form the relief of the thumb eminence. The muscle, abducting the little finger and a short flexor of the little finger, form the relief of the little finger eminence. A concave flatness of the triangle form – a palmar cavity or the palmar aponeurosis – is formed in the space between the eminences. Some wrist bones are marked more proximal from the tenor and hypotenor joint in thin people. This is a pisiform bone and the hamular process on the ulnar edge and the tuberosity of the scaphoid on the radius. There is a small cavity appropriate to the projection of the ulnar neurovascular fascicle on the skin more lateral from the pisiform bone.

54. COMPARATIVE ESTIMATION OF EFFICIENCY OF LASER AND DIODE THERAPY IN TREATMENT OF CHRONIC TONSILLITIS

Blotsky R. – the 5th year student
Scientific leaders – Prof. Blotsky A.A., Yegorova V.D.

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

The chronic inflammatory process in palatine tonsils leads to immunological dysfunction. In this case palatal tonsils become the source of chronic infection themselves.

There are different methods of local treatment of CT at present. But they don′t prevent developments of acute tonsillitis and peritonsillar abscess in most cases. So, searching for the new methods of the conservative treatment of CT is still very actual.

Low intensive laser radiation and diode phototherapy are widely used in otorhinolaryngology in recent decades. The ability of the helium-neon laser (HNL) to influence upon the immune system was used in the conservative treatment of inflammatory diseases, including pharynx diseases. The physical differences of these methods can influence upon efficiency of the local treatment of CT.

The aim of our work is a comparative estimation of efficiency of HNL-therapy and diode phototherapy in the treatment of CT.

Materials and methods

We observed 60 patients (aged 18-54) with CT within 2005 - 2007. The group consisted of 38 men (63,3%) and 22 women (36,7%). The average duration of the disease was from 1 to 10 years. Four equal patients' groups were formed. The first group (15 persons) got the course of diode phototherapy by red light (λ-630 nm; 120 mWt) alongside with the traditional therapy during 7 days. The second group (15 persons) got the course of diode phototherapy by green light λ-530 nm, 60 mWt) alongside with the traditional therapy during 7 days.

Combination of traditional therapy with HNL-one was in the third group (15 persons). The fourth group (15 patients) got the traditional local therapy only. It included the sanation of palatal tonsils with antiseptic solution for 14 days. We took into account the change of pharyngoscopic picture, some factors of immune system before and after the con-

servative therapy. Immunological factors were compared with factors of the control group (healthy, 20 persons).

Results and discussion

The results of pharyngoscopic picture proved to be equivalent in the first three groups of patients. Tonsillar hyperplasia decreased and festering stoppers disappeared. We did not register any relapse of tonsillitis in the third group during half a year after our treatment. We registered one (6,7%) case of acute tonsillitis and peritonsillitis in the first and the second groups three months later. 3 cases (20%) of acute tonsillitis and peritonsillitis were registered in the fourth group three months after the treatment.

55. CANCER OF MAMMARY GLAND

Tsikalova N. – the 3rd year student
Scientific leaders – Perfileva S.S., Rudenko A.I.

Breast cancer continues to be a major challenge for public health, since it is the most common cancer of women in the Western world, and its prevalence is still increasing. Mammography has long been the major technique for the screening of breast cancer. The US National Institute of Health recommends regular mammograms for women over 40. In order to achieve better results in the prevention and treatment of breast cancer it is crucial to identify the mechanisms behind its initiation, i.e. the changes and deviations that have occurred in the mammary gland growth. Among all diagnosed breast cancers, male breast carcinoma accounts for 1% of the cases. Advances have been made in breast cancer diagnosis, therapy and prevention. Significant progress in understanding of underlying genetic changes that contribute to the formation and progression of breast cancer have been made.

56. CHRONIC OBSTRUCTIVE PULMONARY DISEASE

Tsikalova N. – the 3rd year student

Scientific leaders – C.M.Sc. Sundukova E.A., Rudenko A.I.

Chronic Obstructive Pulmonary Disease (COPD) is predicted to become the 3rd leading cause of death worldwide by 2020. Much of the morbidity, mortality and health care costs of COPD are associated with acute exacerbations. Treatments for COPD exacerbations are only partially effective, have significant side effects and do not address specific mechanisms involved in its pathogenesis. Bacterial infections are associated with around 50% of COPD exacerbations and although studies have demonstrated clinical improvement with antibacterial therapy, their therapeutic impact is still disappointing. Development of new therapies for COPD will require understanding mechanisms of virus-induced lower airway inflammation to identify molecular therapeutic targets. However, little is known about the pathophysiological changes occurring in the lower respiratory tract during COPD exacerbations.

57. IMMUNE SYSTEM

Galkina S., Pavlova A. – the 2nd year students
Scientific leaders – Prof. Krasavina N.P., Katina O.I.

Phagocytosis was known to scientists since 1862, but Mechnicov was the first one who connected it with the protective function of immune system.

All organs that take part in formation of cells realizing protective reactions of an organism make up immune system and immunity, i.e. insusceptibility to substances that have heterologous antigenic nature.

Organs are divided into central and peripheric depending on the role in the process of immune protection.

Central organs (red bone marrow, thymus) provide the processes of antigen-independent proliferation and differentiation of predecessor cells coming from red bone marrow.

Peripheral organs (lymph nodes, spleen, tonsils, Peyer's patches, appendage, and lymphoid formation of alimentary tract, genital, respiratory and excretory systems) provide the processes of antigen- dependent proliferation and differenticition of cells that migrate from central organs where they have already received specific captors to the antigen. To provide the contact with antigens these organs are on their penetrating ways through lymph and blood.

The function of immune system is to find out and remove from the organism everything what is heterologous as microbs, viruses, fungi and even proper cells and tissues if they change and become heterologous under the effect of environmental factors. Mutant and tumor, injured and aged cells that appear during the whole life of an organism refer to such cells. Specific cases of conflicts between immune system and heterologous cells appear at surgical transplantations of organs and tissues.

58. KOROKSAN IS A NEW MEDICAL PREPARATION FOR TREATMENT OF STABLE STENOCARDIA

Taran A., Silvestrovich J. – the 3rd year students
Scientific leaders – C.M.Sc. Bityutskaya L.G., C.M.Sc. Anokhina R.A., Katina O.I.

Koroksan is one of a first medical preparation that effects only the heart rate reduction (HRR). Koroksan has fundamentally new mechanism of action: it partly suppresses the ionization current that plays main role in control of spontaneous diastolic depolarization of sinoatrial node level not effecting on myocardium contractile ability, ventriculo-atrial and intraventricular conduction and ventricular repolarization. Koroksan treatment is not accompanied with the development of objectionable effects peculiar to beta-blocks. A strategy of heart rate reduction is one of the most important therapeutical approaches aimed to prevent and treat stenocardia. Ivadrin effect is considered to be a promising alternative to existing therapy. Efficiency and endurance of Koroksan was proved during a large scale clinical research program with participation of 5000 patients. Besides investigations made in field of stable stenocardia treatment, perspective of Koroksan in other directions are studied: the effect of this drug on morbidity and mortality of patients with ischemic heart disease (IHO), chronic cardiac insufficiency and acute coronary syndrome treatment.

59. THE BIOGRAPHY OF DOCTOR HAAS

Druzhinin E., Tarasyuk E. – the 4th year students
Scientific leaders – C.M.Sc. Sulima M.V., Katina O.I.

Friedrich Joseph Haass (in Russian – Fyodor Petrovich Gaaz) was born in August 24, 1780 in the ancient city of Bad Münstereifel, not far from Cologne. His father was a pharmacist, and his grandfather was a medical doctor. Friedrich studied philosophy and mathematics at the University of Jena and graduated from the department of medical sciences in Vienna, where he specialized in ocular diseases. Having successfully cured the Russian nobleman Repnin, Haass, at his invitation, moved to Russia, and he lived in Moscow from 1802. Soon the energetic young physician formed a large practice there. In 1806 he began to treat patients with ocular diseases at the Preobrazhenskaya almshouse – free of charge and very successfully – and that drew the attention of Empress Maria Feodorovna. She recommended him for the position of senior physician at the Pavlavskaya Hospital in Moscow. Haass managed to accomplish a great deal. He was awarded the Cross of St. Vladimir for his

work in the Yekaterininskaya almshouse and for a book on the health benefits of mineral waters from the Caucasus he was made a court counselor. During the war with the French, Haass, enlisting for active duty in the army, went all the way to Paris and at the war's end he retired from the service. Having visited his family in Germany and attending his father's funeral, he returned to Russia – this time, forever. Nonetheless, he did not convert, remaining a Catholic his entire life. His private practice made him one of the most visible and wealthy physicians in Moscow. Thanks to his spotless reputation, he was appointed the city-physician to the Moscow Medical Bureau in August 1825, supplying the army with medicine, as well as 30 military and civilian hospitals. Fyodor Petrovich's efforts to bring medical care in Moscow up to the European standard failed entirely, and he eventually left the post. Universal apathy, hatred toward the "German," the envy and denunciations of his colleagues were the primary reasons. Haass again took up his private practice. Having a house in Moscow, an estate with a cloth factory and his own horse-drawn carriage, he led the life of a well-to-do, respected individual, spent time with his friends and corresponded with the famous Friedrich Wilhelm Joseph von Schelling. He was carried away with his public activity.

"Hurry on to do good things!" became his motto for the remainder of his life. In early 1825, Haass successfully contained a typhus epidemic in a prison at the request of Moscow's General-Governor D.V. Golytsin; in 1826, he stopped an epidemic of an ocular disease and helped to organize and equip a new hospital, in part with his own funds. During the cholera epidemic of the 30s Fyodor Petrovich led one of the hospitals, managed the registration of all cholera infections in Moscow, and daily participated in meetings of the Medical Council. Appointed as a member of the warden's committee on prisons and the head doctor of Moscow's prisons, he was shocked when he saw how prisoners lived. There were no latrines, no washstands, no government-issued garments, and no plank beds. Many prisoners were completely naked. They all slept side by side on the floor among the swarming insects. Overnight, they were left with a bucket for sewage. It was crowded and there wasn't enough air. Lechery, cold, hunger and torment reigned. Women and men, children and sick, contagious prostitutes were imprisoned side by side; suspects and those arrested for debts were thrown in with the most inveterate criminals. The heating was bad. In winter it was frigid. Of course, in such conditions, epidemics are not a rarity. During the transportation of prisoners, eight to ten people were chained to a thick, iron rod. They slept and went to the bathroom in front of one another, women and men together…

60. TROMBOSIS

Gerasimenko D. Grishina O., Kirillova J. – the 3rd year students
Scientific leaders – Prof. Yartsev V.G., Teplishcheva M.M.

Thrombosis is a formation of blood clot (thrombus) inside blood vessel obstructing the blood flow through the circulatory system. When blood vessel is injured, the body uses platelets and fibrin to form blood clot as the first step in repairing it (hemostasis) to prevent loss of blood. If this mechanism causes too much clotting and the clot breaks free, thrombus is formed.

Thromboembolism is a general term describing both thrombosis and its main complication that is embolisation.

When thrombus occupies more than 75% of the surface area of the lumen of artery, blood flow for the tissue supply is reduced enough to cause symptoms because of the decreased oxygen (hypoxia) and accumulation of metabolic products such as lactic acid. More than 90% of obstruction may result in anoxia, the complete deprivation of oxygen, and infarction, a mode of cell death.

What can we say about causes?

In classical terms, thrombosis is caused by abnormalities in one or more of the following (Virchow's triad) factors:

-The composition of the blood (hypercoagulability)
-Quality of the vessel wall (endothelial cell injury)
-Nature of the blood flow (hemostasis)

The formation of thrombus is usually caused by Virchow's triad. To elaborate, the pathogenesis includes: an injury of the vessel's wall (such as trauma, infection or turbulent flow at bifurcations); the slowing or stagnation of blood flow past the point of injury (which may occur after long periods of sedentary behavior - for example, sitting during long airplane flight); blood state of hypercoagulability (caused for example, by genetic deficiencies or autoimmune disorders).

61. TO THE QUESTIONS OF DEMOGRAPHY AND POLITICS IN THE SPHERE OF PUBLIC HEALTH SERVICES

Vereshchagina N. – the 3rd year student
Scientific leaders – Sirotin Y., Teplishcheva M.M.

We often hear the phrases about demographic policy: for some people these are the fine words with some kind of patriotism, but not for the doctors…

A state of health of region population, typical for Russia, is a print of the specific problems caused to be the "transition" period. According to the regional scientists investigating a dynamics of health state, we can determine 3 basic groups influencing on the mortality of the population at present days: these are the looses in the result of premature death-rate connected in any kind with alcohol consumption, sharp availability of alcohol and deterioration of its quality; the second reason is a deterioration of living conditions and extension of unfavorable social zone (marginalization of population during the reforms); the third reasons are the responsibility of public health services (increase of death-rate from preventable causes, early mortality from the whole somatic pathology- an evidence of low prevention and significant deterioration of treatment quality). Prognostic evaluation of population health testifies that besides the quantity changes in a population a number of the real quality content of population will be supposed; a number of healthy persons especially among the newborns will sharply decrease; a process of chronic pathologies, particularly in the young people will be continued.

Having made such prognosis and followed up the causes of death-rate growth and the state of birth-rate, we must discuss the fulfillment of the basic policy directions in the sphere of public health services, mention the problem of optimization of health services and the problem of the health services as a certain sector of economics: at present, health services try to present as a special sector of market. It is true partly. First of all public health services are the social sphere, its task is to save people, maintain demographic safety. Sorry to say, the market approach today begins to prevail.

Priority direction of the state policy in the field of citizen health protection should become an improvement of health population, decrease of its death-rate, especially at the able-bodied age, increase of the average life-span. A complex of measures aimed at the improvement of the equipment of medical establishments, changing the level and order of them, reorganization of primary health services to the population, forming healthy life way are necessary.

It is necessary to correlate the amount of government expense in medicine with the recommendations of the World Health Organization , i.e. not less then 5 % of total state products (in 2007 3,8 % in medicine and sport was allocated), in the budget for the 2010 only 3,4 % are allocated. Thus , we must say that the priory direction of the state policy in

the health services sphere should be the prevention of health, systemic government measures for obligatory dispensarization, vaccination, maintenance of healthy life way. As a result, the systemic measures in the development of preventive medicine will turn out to be not only the strengthening of social health, but also significant state economic effect. According to the statistic data, in the Amur Region one ruble spent to prophylaxis of tuberculosis saves 38, 5 ruble and prophylaxis of poliomyelitis -42 rubles. It is necessary to mention that at present preventive medicine in Amur Region gradually improves.

62. THE HISTORY OF "BLUE" BLOOD

Vereshchagina N. – the 3rd year student
Scientific leaders – Prof. Volodchenko N.P., Teplishcheva M.M.

Once in a fine day in 1966 laboratory mice felt into a bank with perfluorine carbonic emulsion. It has fallen, choked, but didn't die and continued to breathe. Already at the begging of the 60th American scientist Henry Sloviter thought that enriched with oxygen perfluorine carbonic emulsion might a respiratory environment for the alive beings and substitute air, fulfill the functions of blood carrying out oxygen through the entire organism. In 1968 it was confirmed. Robert Jejer completely substituted the blood of experimental rat by perfluorine carbonic emulsion and the animal remained alive. Special laboratories were organized in USA, Sweden, Germany, England, Japan and China. But Japanese scientists got a success first of all. In 1974 they produced the medication named as "Fluozol-DA". In 1979 it was permitted for people. As soon as medication came into the wide sale and American market, the real scandal began. The reason for it was a suddenly reactivity of the medicine -35%, instead of 2-5% declared by Japan. The cause was that people of Mongolian race had absolutely another sensibility of the immune system these preparations. When it was proved, the "Fluozol-Da" had been prohibited, the Japanese firm had ruined and its host died. Soviet Union entered the game later. The works began in Leningrad in the SII of hematology and blood transfusion at the begging of 70s. Soon the work-up came under the control of Moscow Institute of hematology and blood transfusion. It might be easy and smoothly, but in 1979 this alliance faced the revival- the institute of biophysics SA of Soviet Union. Here the young and unbelievably energetic Doctor of M.S.-Felix Beloyartsev began to make the active investigation. As a result he overcame even the Japanese scientists. Both scientists creating the emulsions tried to provide as soon as possible an extra loss of preparation from organism and they made emulsion from the larger drops. The largest are the drops of emulsion the easiest they stick together and quickly absorbed by phagocytes. However the occlusion of the small vessels is inevitable. Experimental animals died in Japanese laboratories. Beloyartsev guessed to make an emulsion with fine particles. As a matter of fact, that all kinds of functional disturbances are connected with blood circulation damage. The capillaries are compressed, blood circulation made worse, provision of the cells with oxygen decreased. In free oxygen environment a glycolsis became prevalent-glycolytic splitting up to the lactic acid. The environment became oxygenated, the capillaries are more compressed, the less oxygen passed into the organs and tissues and it ended in their complete destruction. Fine particles of perfluorine carbonic emulsion are capable to invade into the compressed capillary. They carry out less oxygen then blood, but even the smallest stream of oxygen is capable to turn the process back. Capillaries are dilated a little, blood supply increase is restored. F. Beloyartsev practically won: two medications were [produced at the same time, but the medication of Health Ministry hadn't passed the clinical trials. Perfluorine was proponed to a competition for the State honor of USSR. But the victory of preparation brought a lot of problems. Felix Belojyartsev was constantly interrogated. Once inspectors came to his datcha to find the stocks of a stolen spirit. In the morning a security man found him dead. His death

became a shock for everybody. He couldn't copy with the atmosphere of slander and betrayal. It would be seemed, that this surprising history where the envy and scientific flight, science and politics had come to its end… But the founders of blue blood survived. In 1996 perfluorine carbonic emulsion was registered and in 1997 was put into the sale.

63. HYPOKINESIA AT THE CELLULAR LEVEL

Bodnarchuk E. – the 3rd year student
Scientific leaders – Ass.Prof. Mironov F.S., Teplishcheva M.M.

Numerous experimental facts testify that hypokinesia for hemothermal animals and human beings is a stressor agent. An emergency stressor phase of experimental hypokinesia lasts for the first till to the fifth days. It is characterized by a sharp increase of catecholamine and glucocorticoids, prevalence of catabolic processes. The animals drop weight. At this stage thymus gland undergoes an intensive destruction due to the migration of lymphocytes including about 90% of its cell population. Hypersensivity of lymphocytes may be considered as the main cause of their migration and decrease of thymus gland mass.

Next 10 days the spleen and liver become destructed. The hemispheres of the brain remains unchangeable. From the 30th to the 60th days of hypokinesia the weight of animals becomes normal. But investigations revealed the arrest of physiological growth. The content of nucleic acids correlates with the growth processes and its arrest due to hypokinesia.

The brain is less influenced by hypokinesia. During the first 10 days of hypokinesia the increase DNA and the level of initial RNA are observed. Cardiac concentration and total content of RNA decrease that result in the disturbance of protein biosynthesis in myocardium.

Within the 30-60 days the content of DNA in the heart is increasing. Such growth is connected with its extension in the heart endothelium and fibroblasts (there are 60% of fibroblasts and endothelium cells, 40% - in muscular cells- cardiomyocytes). It is known, that a number of cardiac cells doesn't increase from the 20th days of postnatal ontogenesis.

Any growth of cardiac DNA doesn't occur during the 30-60 days. A number of cardiomyocyte density with two nuclei increases.

Concentration of nuclear acids in the liver remains normal in hypokinesia, but its absolute content (i.e. on the entire organ). There are some dystrophic changes in the hepatic tissue. A number of polyploid and dividing cells, i.e. with increasing DNA decrease, synthesis of maternal and ribosomal RNA are suppressed. The decrease of total number of DNA is a result of the death of a part of hepatic cells. During the first 20 days of hypokinesia a predominance of catabolic processes is observed in the cells and tissues of the experimental animals. In the result of destructive changes in the thymus and liver, skeletal muscles, a concentration of katepsine D., enzyme of degenerating tissue proteins overcome the control level two times by the 3rd day. From the 20th up to the 30th days of hypokinesia a stabilization of protein content of internal organs is observed. The quantity of proteins growths in the liver and cardiomyocytes, but in the following days-30-60- its level remains stable.

The condition of the usual life activity after hypokinesia results in activation of nucleic biosynthesis of acids and proteins. Yet to the 10th day of rehabilitation period their content has achieved the level of the animals under control. By the end to the 10th days of recovery regimen the experimental animals haven't practically differed from the control ones. This fact convincingly testifies that hypokinesia doesn't cause irreversible changes in the genetic structure of a cell.

64. SPECIFIC ACTION OF HUMAN INTERMEDILYSIN

Bodnarchuk E. – the 3rd year student
Scientific leaders – Yermakov G.A., Teplishcheva M.M.

Intermedilysin is a pore forming cytolysine belonging to O streptolysine gene family known as "Cholesterol dependent cytolysines". It is unique within the family and it is very humanly specific. This feature suggests interaction with the products of the human cells except cholesterol as a receptor for the other toxins of family genes. Indeed, intermedilysin didn't manifestate a significant similarity to determine or filled in the liposome cholesterol. Intermedilysin mutant undecapepide investigation showed that such lack of similar cholesterol was a result of substitution of intermedilysin in this area. The absorption tests with erythrocytes from different animals, competitive inhibition with domain 4 out of intermedilysin and liposome-connective tests of streptolysine pointed out that fixing of the membrane site - a human streptolysine and intermedilysin step of action and the host-the membrane-connective units are located in the limits of the 4th domain together other with organs. The receptor for this toxin is not cholesterol. Special features of mutant variety between the intermedilysin O. Also intermedilysin and pneumolysin determines that the 4th - domain of intermedilysin is the main factor in the human –specific step of action and is connected with a false location of the 4th domain connected with 4 false domain in the limits of 56 aminoacids S-terminal, excluding the area of undecapepide.

65. CARCINOID SIMULATING CAECUM CANCER

Azarov M. – the 3rd year student
Scientific leaders – Ass.Prof. Volkov L.A., Teplishcheva M.M.

Carcinoid is a tumor similar according to its structure, but sharply different from it by the physicochemical cell properties and clinical manifestations. Carcinoid tumors made up 0.10-0.34% of all tumors of the gastrointestinal tract. They appear in the result of autonomic proliferation of enterochromaffin Kulchinskiy's cells. A different peculiarity of these cells is an ability to produce hormones and monoamines such as serotonin, glycogen, gastrin, histamine.

Carcinoids occur commonly in a stomach and intestines, but they rarely in the bronchi , gall bladder, pancreas and ovaries. Malignant metastatic carcinoids are seldom observed.

We watched a patient with carcinoid caecum tumor with the atypical clinical picture. This case was difficult to diagnose.

The patient V. was admitted to the surgical department of the 1st municipal hospital in emergency case with complaints of persisting pain the epigastrium, xerostomia. She didn't consult a doctor. Gradually the pain in the abdomen strengthened and became constant, chill appeared. She was admitted to the reception of the hospital by an emergency car.

On investigation of ileum a tumor-like formation of thick content, locating together with blind intestine, painless on palpation was revealed. The tumor of 7-5 cm. was found in the caecum. The diagnoses of caecum cancer was made.

Operation-middle median laparotomy was performed. In revision the exophit 6-6 cm. tumor was revealed. It was granular, located at the arch of caecum and painless at palpation, invaginating into the ascending intestine together with vermiform process. The metastases in paracolitic and retroperitoneal lymphatic nodes were not revealed. The diagnosis caecum cancer of the 3rd A stage was made. The right side hemicolectomy with application of ileum transversal anastomosis according to the type "end in side" was performed. On histological investigation malignant carcinoid with necrosis was revealed.

Postoperative period was not complicated the patient was discharged from the hospital in the satisfactory state. She was directed to the onco-dispensary for the further chemical therapy and following-up.

Thus, in our case the malignant carcinoid was of atypical clinical picture similar to caecum cancer that was connected with the large area of colon damage.

66. APPLICATION OF PHOTO-DIODINE IN OUT-PATIENT THERAPY

Tarasyuk E. – the 4th year student
Scientific leaders – Prof. Shimko V.V., Teplishcheva M.M.

Surgical infection of soft tissues is a leading pathology in the structure of the primary consultation at out- patient department. As a rule, the patients are the able-bodied persons. Healing the purulent wounds and wound infections remains to be complicated and not completely solved problem. Due to it, the development and putting into the clinical practice innovative methods of physical action to the wound surface become urgent.

Due to the urgency of the problem we used a method of photochemical therapy in the out-patient conditions.

The basis of biological effect on an organism is the interaction of photon with the organism tissues at molecular level. Photo irradiation can cause three different reactions: photo oxygenation of lipids in the cell membranes; photo reactivation of peroxide dysmutase; photolysis of nitric oxide complex.

It was revealed that photochemical therapy positively acts on the course of wound process of purulent wound. It is manifestated in the quicker stopping of purulent process, prevention of its generalization and antimicrobial action. Besides, we should mention the immune stimulating, anesthetic and antinflammatory effect.

In the treatment of skin and subcutaneous fat we used the phototherapeutic photodiode apparatus made by "Polyronic" in Moscow.

Photodiode is a semiconductor element, irradiating light in passing through p-n in the straight direction. Photodiodes have a number of positive qualities similar to their semiconductor lasers.

The method includes the following steps: cleansing and wound boarding, lavage with antiseptic solutions (hydrogen peroxide, water solution of chlorine hegidin). After this procedure we irradiated the damaged areas with the distance of two cm over the wounds. The duration of the procedure for one wound field is 1,5-2 minutes. The whole time of the procedure is up to 10 minutes. We healed the wounds on the background of antibiotic therapy. Treatment of the wounds with photodiodine therapy has been conducted in 90 patients. The comparison group included 80 patients with the similar diseases. Their wounds were treated with proteolysis enzymes, water-soluble ointment and hypertonic solution.

The effectiveness of the treatment was estimated according to the clinical picture with the account of necrosis duration, appearance of granulations, beginning of epithelium formation.

The initial data allow to determine that the process of cleansing, granulation and epithelium formation of a wound occurs in 3-5 days quicker, time of patients' treatment at out-patient department accordingly decrease.

Thus, application of the given method allows to cut down the wound healing time, rate of the sick-leaves because of the purulent skin and subcutaneous diseases. This method will be allowed to become an alternative one to the conventional treatment of the given diseases.

67. PECULIARITIES OF GROWTH IN CHILDREN WITH BRONCHIAL ASTHMA

Marushenko I. – the 4th year student
Scientific leaders – Ass.Prof. Labzin V.I., Bibik I.A.

The question of disease influence on the processes of children's growth and their development hasn't a single answer: some researchers suppose that this influence is inessential; others, on the contrary, think that it represents a serious problem, because a disease is a

stress internal factor.

Anthropometric materials were obtained in Children Consultative Polyclinic of Far Eastern Scientific Research Center of Physiology and Pathology of Respiration. 112 children (69 boys and 43 girls) that is 61.6% and 38.4% accordingly were examined.

Children were divided into the following groups: the experimental group (the children with bronchial asthma) and the control group (healthy children).

Children's anthropometric characteristics were gained with the help of some anthropometric instruments: sliding and large thick calipers. Skin fold thicknesses were measured with a caliper on the right side of the body under the standard pressure. Also we used medical scales, device for height measuring.

We also used Rees-Eisenck index for revealing somatotypes. The processes of growth in the children of compared groups were analyzed according to the age dynamics.

Identity of growth processes was confirmed by growth curves, which showed dynamics of indices of physical development in the children of the control group, and of experimental one. The monotonous growth was typical for body mass, which was observed in the period of the first childhood. The detail analyses demonstrated that majority anthropometric indices of curves of children of the experimental group were situated lower than the same of the control one. Such distinctions were registered on skin fold thickness on the triceps.

Probably, these distinctions are connected with the initial growth delays of the children of the experimental group and can be explained by pathology processes influence.

In spite of the initial growth delay, typical for the children of the experimental group, the acceleration growth processes were marked.

This fact demands further investigation and if it isn't an incidental case, it could be explained as a result of successful therapeutic treatment of children with bronchial asthma. These interferences could essentially improve health condition of the children, slow down affect of morbid process influence and lead to normal growth processes.

68. TREATMENT OF HERPES VIRUS INFECTION

Marushenko I. – the 4th year student
Scientific leaders – C.M.Sc. Reshetnikova L.K., Bibik I.A.

During the recent years in many countries of the world a tendency of increase of a number of people, suffering from herpes virus infection (50% of cases) is registered. Nowadays nobody doubts it is due to a problem with immune system.

We studied a possibility to use an immunostimulating preparation «Imunofan» in complex treatment of the patients with herpes virus infection. Imunofan is a synthetic preparation of the last generation of the group of tymic peptides. It intensifies a production of cytokines, increases antivirus activity and a functional activity of macrophage link.

All patients were divided into two groups. In the first group the treatment was conducted according to the generally accepted scheme (acyclovir, vitamin therapy, liniment «Zovirax» or «Acyclovir»). In the second group except this treatment the patients got Imunofan. Preparation was introduced intramuscularly daily (1ml during 20 days).

Common clinical observation, IFA, PCR were carried out. In patients a number of T-lymphocytes (CD3), B-lymphocytes (CD72), NK-cells (CD16), T-helpers (CD4), T-suppressors (cytotoixic cells, CD8), immunoglobulins A, M and G were determined before and after the treatment.

The results of study showed that 90% of patients had a substantial decrease of immunological indices before treatment. After the treatment in the second patients group Imunofan was used; clinical convalescence came 5 days earlier. We also noticed the raise of immunological status indices. Among them indices of T-lymphocytes, T-suppressors, NK-cells, a numerous of immunoglobulins M, G were in norm. But indices of B-lymphocytes, T-

helpers, IgA did not get the norm point. In the first group all indices of immunological reactiveness practically remained lower than normal values.

So, effectiveness of using immunostimulating preparation Imunofan is confirmed in treatment of herpes virus infection.

69. DE-NOL IN TREATMENT OF PEPTIC ULCER AND CHRONIC ACTIVE GASTRODUODENITIS ASSOCIATED WITH HELICOBACTER PYLORI

KolodinaO. – the 4th year student
Scientific leaders – C.M.Sc. Soluyanova I.P., KatinaO.I

De-nol is now the basic drug used in the treatment of PU and GAGD caused by HP. De-nol is a complex bismuth salt of citric acid. It interacts with proteins at the bottom of an erosion or ulcer on the surface of microerosion to form a protective film that prevents back diffusion of the hydrogen and protects the mucosa from other aggressive factors. De-nol also has antipepsin activity due to its binding of pepsin into complex composed. De-nol stimulates secretion of the bicarbonate ion and the synthesis of prostaglandins. The absence of antisecretory or antacid effect is also a positive property. But the main property of De-nol is bactericidal effect on HP. The bismuth ion is the active antibacterial component of the drug. When exposed to De-nol, bacteria lose their adhesive power. Bismuth is accumulated in their walls and in cytoplasm; this deactivates their enzyme systems and upsets their metabolism, thus weakening their defence mechanisms and viability.

70. ANTIREFLUX MECHANISM OF THE ESOPHAGEAL GASTRIC PASSAGE

Pagmitov V., Manzhula V., Fyodorov A. – the 2nd year students
Scientific leaders – C.M.Sc. Seliverstov S.S., Yegorova V.D.

Gastroesophageal reflux disease (GERD)-is one of the most important problems of gastroenterology and sphincterology. GRED makes up about 10-12% of all diseases of the gastrointestinal tract, and the increase of the frequency is observed every year. Research in the USA & FRANCE showed that 44% of people experience the symptoms of GERD. It all makes GERD be one of the actual and priority trends of the modern gastroenterology and sphincterology.

The main problem of the structure and function of the antireflux mechanism represented in the modern literature is contradictionally. According to different authors the action of antireflux mechanism includes following factors:

The length of the abdominal part of esophagus.
HIS angle (acute angle of the entrance of the esophagus into the gastric.)
The diaphragm and its stems.
Gibiryev's fold is formed by mucous membrane of the rosula and cardia.
The lower sphincter of the esophagus LSE.
The diaphragmatic-esophageal ligament, which prevents the displacement of the esophagus during swallowing.
The hepatic-gastric ligament.
The paraesophageal fatty tissue.
The gaseous bladder in the fundus of the stomach.
10. The left lobe of the liver fixing to the esophagus.
The lower lobes of the lungs.
Heart dilatation.
The increase of intra-abdominal pressure.

The endocrinic factors.

According to the literature it is difficult to judge, which of these factors or mechanisms is the main one, each of them has the followers and opponents. To our mind the leading role in the antireflux mechanism belongs to the LES and vascular factor.

Out of 10 preparations 3 ones showed the real thickening in the place of GEP mainly in the circulatory layer. We observe the intensification of the vascularization, pressure, and binding, adhesions of vessels, of mucous and muscular membranes. The difficulty in these separations testifies to it.

The investigations showed that the musculature from the left consists of long, oblique, ansiform fibres, crossing along the stomach (collar by Gelvetsi), from the right the musculature consists of the fibres enveloping esophagus on the semicirculation.

To our mind investigation of the sectional material or preserved preparations can lead to errors. However investigations by intraesophageal ultrasonography with manometring confirm the presence of the thickeng in the circulatory and longitudinal layers of the musculature in the zone of LES. Thus inspite of contradictions in morphological information about structure and position of the circulatory musculature in esophageacardial section in the literature the main role belongs to LES.

71. HIV-INFECTION

Shishlikova Y. – the 2nd year student
Scientific leaders – Prof. Gordiyenko E.N., Posokhova A.A.

1. HIV – infection enveloped almost all continents like the fire. It became problem number one for the World Health Organization and United Nations Organization for a very short time.
2. The feature of AIDS is that it is the first acquired immune deficiency connected with the specific pathogen and characterized by epidemiologic spread in the history of medicine.
3. Information contained in genes of virion controls the virus's ability to infect cells, replicate and cause the disease.
4. The first feature of AIDS is that perhaps it is first acquired immune deficiency connected with the specific pathogen and characterized by epidemiologic spread in the history of medicine.
5. Intensive investigations are being carried out in different countries for the purpose of finding out effective remedies for AIDS. The main strategic tendencies of these research works are search of antiviral preparations influencing on HIV in different stages of its reproduction and use of methods of restoration of immunity's functions broken in AIDS.
6. Immunization against pathogenic agent injuring an important component of the immune system is connected with special difficulties. Besides, a strong changeableness of the virus prevents. Mainly it is conditioned by accumulation of mutations.
7. The search of antiviral preparations influencing on HIV in different stages of its reproduction and the use of restoration of immunity's functions broken in AIDS are the main tendency in finding efficient remedies for AIDS.

72. NANOTECHNOLOGY IN MEDICINE

Demina K. – the 2nd year student
Scientific leaders – Prof. Borodin E.A., Volosenkova E.A.

Nanotechnology, "the manufacturing technology of the 21st century," should let us economically build a broad range of complex molecular machines (including, not incidentally, molecular computers). Nanotechnology will give us new instruments to examine tissue in unprece-

dented detail.
The most direct route to achieving this capability involves positioning and assembling individual atoms and molecules in a fashion conceptually similar to snapping together LEGO blocks. Basic proposals draw on a body of work started by von Neumann.
Such a computer would use less than 10^-9 watts. A molecular "robotic arm" less than 100 nanometers long should be quite feasible, as well as molecular binding sites 10 nanometers in size or less. Devices of the size range suggested above (—0.1 microns) would easily fit in the circulatory system and would even be able to enter individual cells.
Giving such molecular tools, we could design a small device able to identify and kill cancer cells. Beyond being able to determine the concentrations of different compounds, the cancer killer could also determine local pressure. As acoustic signals in the megahertz range are commonly employed in diagnostics, the ability to detect such signals would permit the cancer killer to safely receive broadcast instructions. The cancer killer could readily be reprogrammed to attack different targets.
A second application would be to provide metabolic support in the event of impaired circulation. A simple method of improving the levels of available oxygen despite reduced blood flow would be to provide an "artificial red blood cell." Autonomous molecular machines with externally provided power could be used to restore function, maintaining function in the tissue itself would no longer be critical deliberately turning off the metabolism of the cell to prevent further damage would become a feasible option.
Advances in medical technology necessarily depend on our understanding of living systems. With the kind of devices discussed earlier, we should be able to explore and analyze living systems in greater detail than ever before considered possible. Autonomous molecular machines, operating in the human body, could monitor levels of different compounds and store that information in internal memory. These molecular machines could then be filtered out of the blood supply and the stored information (and samples) could be analyzed. This would provide a picture of activities within healthy or injured tissue. This new knowledge would give us new insights and new approaches to curing the sick and healing the injured.
It should be feasible to take "snapshots" of tissue samples and analyze the structure down to the molecular level. The resulting "snapshots" will provide us with an instantaneous look at metabolic and cellular activities across even relatively large volumes of tissue.
The abilities discussed here might well take years or decades to develop. We should have some form of molecular manufacturing in the 2010 to 2020 time frame. After this, the medical applications will require some additional time to develop. How long it will take to develop these systems depends very much on what we do. If focused efforts to develop molecular manufacturing and its medical applications are pursued, we will have such systems well within our lifetimes. If we make no special efforts the schedule will slip, possibly by a great deal. As might be appreciated, developing these systems within our lifetimes would be advantageous for a variety of reasons.

73. SEPSIS

Dimova M. – the 3rd year student
Scientific leaders – Efimtseva A.F., Teplishcheva M.M.

Sepsis is a general purulent infection caused by various microorganisms conditioned by the foci of purulent infection. It is a specific reaction of organism with the sharp weakening of its protective features. Sepsis develops when the purulent foci of virulent microflora and decreasing of protective features present. Agents of sepsis can be nearly all existing pathogenic and opportunistic pathogenic bacteria. The most widely spread agents are considered the following: Staphylococcus, Streptococcus, Bacillus aeruginosa, Proteidae, Bac-

teroides and anaerobic flora.

Three forms of sepsis can be determined:

Septicopyemia – sepsis with many purulent metastasis and polyorganic insufficiency;

Septicemia – sepsis without purulent metastasis;

Chronicle sepsis – chronic staphylococcus sepsis usually proceeds in recurrent form with repeated waves of metastasis. Multiply metastasis abscesses appear in the skin fiber, lungs, kidneys, some other organs, sometimes it causes endocarditis and miocarditis.

One can differ three main types of changes in the internal organs in sepsis: severe dysfunction of blood circulation, widespread dystrophic and inflammatory changes.

Septic blood dysfunction is characterized by ununiform plethora, stasis and focal hemorrhage into internals and coverlet, widespread thrombosis of small vessels in the lungs, liver, kidneys. Dystrophic changes of vascular walls in the form of plasmatic impregnation, mucous and fibrin degeneration are very typical. The development of vasculitis is also possible. Practically in all cases sepsis is followed by DIC (disseminated intravascular clotting) or THS (thrombus hemorrhage syndrome), which level of intensity varies from case to case. In some cases the evidence of DIC can be revealed only due to the dissection, in other ones they are vividly detected in the form of skin hemorrhage, mucous tunics, development of nasal hemorrhage, hemorrhage from umbilical wound of newborn, places of injections and surgical interventions. One of the clinical anatomic versions of sepsis, when hemorrhage symptoms prevail, is so called Boll disease. Clinically this type of sepsis is characterized edema, skin and mucous hematoma, umbilical wounds and nasal hemorrhages, jaundice develops, histological study reveals grave fatty atrophy of liver, kidneys, heart.

The development of dystrophic processes in internal organs has a very important pathological and tanatogenetical meaning. Granular degeneration of miocardiocytes, granular and fatty atrophy of hepatocytes, and tubular epithelium of kidneys are the most significant changes. Staphylococcus sepsis often produces large-focal necrosis of kidneys. Atrophic and necrotic changes are caused by toxic action of microbial toxins, suppressed microcirculations is conditioned by severe metabolic disorder. Septic inflammatory changes have a widespread character. They can be revealed in many organs: lungs, liver, kidneys, heart, brain, intestines.

74. SPINA BIFIDA

Ivanova K. – the 1st year student

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

Spina bifida is a developmental birth defect involving the neural tube: incomplete closure of the embryonic neural tube results in an incompletely formed spinal cord.

Spina bifida is one of the most common birth defects, with an average worldwide incidence of 1-2 cases per 1000 births.

People with spina bifida appear to have abnormal metabolism of folic acid.

It is noticed that mothers who have children with a developmental birth defect involving the neural tube have rather high level of amino acid homocysteine and that indicates to a defect of function of enzyme methylenetetrahydrofolate reductase. The gene for *MTHFR* is located in chromosome 1 at 1p36.3. The C677T allele is a single base pair mutation in which a cytosine is converted into a thymine at basepair 677, resulting in an amino acid substitution (alanine to valine) in the enzyme.

Spina bifida malformations fall into three categories: spina bifida occulta, spina bifida cystica (myelomeningocele), meningocele.

Newborns with spina bifida require the surgical treatment.

75. UROGENITAL MYCOPLASMOSIS.

Kolesova M. – the 3-d year student.
Scientific leaders – Prof. G.I. Chubenko, ass. A.I. Rudenko.

Mycoplasma is a unique group of wide spread microorganisms in the environment, which are differed from others by the lack of cell wall. They are the smallest bacteria with the size of 100-200 nm, sometimes 200-700 nm, not forming spores, stiffness, Gram-negative bacteria. The most of its forms are the elective anaerobes. For the growth they need proteins, sterols, phospholipids, mucins, and also purin and pyrimidin bases. On the solid mediums they grow in the form of typical colonies with impressed center growing to the medium and a soft lace edge. In 3-5 days of incubation they sometimes become larger (about 1,5 – 2 mkm), but rare hardly differentiated with the naked eye. Human being is the natural carrier about 13 species of mycoplasmas, which grow on eye, respiratory, digestional and urogenital mucous membranes. The male inflammation of urogenital system, such as uretritis, cystitis, glomerulonephritis, pyelonephritis, prostatitis; female inflammation - vaginitis, salpingitis, colpitis, cervicitis, endometritis, parametritis are often with mycoplasmas, especially with M.hominis and U.Urealyticum. Mycoplasmas are very often exposed in the clinically healthy persons. Recently great the attention is paid to massive invasion. Mycoplasmas are considered to be connected with development of inflammation, if their titer in the examined tests more than the 10^4 colony forming units.

76. RISK FACTORS OF THE SECOND IMMUNODEFICIENCY'S FORMING IN CHRONIC OBSTRUCTIVE LUNG DISEASE

Chernova Ye.V., Lozgachyova A.A. – the 4th year students
Scientific leaders – C.M.Sc. Pavlenko V.I., ass. Posokhova A.A.

The problem of chronic obstructive lung disease does not only continue to remain one of important in clinical medicine but acquires more serious medical and social aspects. A number of authors consider that violations in the immunity's system with the forming of the second immunodeficient state are one of the reasons of frequent relapses, resistance to treatment. In spite of sufficient quantity of data about risk factors of immunodeficient state in COLD, their genesis remains unidentified in a number of cases.

The aim of our investigation was revealing of frequency and structure of risk factors of immunodeficient state's development in patients with COLD depending on sex. 22 patients with COLD of average serious course at the age from 48 to 50 years old in the stage of acute condition with the duration of the disease 10,7±3,4 years were under observation. Patients were divided into 2 groups – 12 men were in the 1st group, 12 women – in the 2nd one. Groups were equal by age and duration of the disease. Immunologic examination was carried out to all patients. We determined that 33,3% of patients had pneumonia, 25% - frequent respiratory diseases, 100% smoked more than 10 years, the smoker's index made 23±10,5 packs/year in the 1st group. Unfavorable industrial factors were revealed in50% of patients, 16,6% of patients had the trauma of the chest in the past, 8,3% - the burdened allergic anamnesis, 33,3% - stress situations, 50% - not rational nutrition, 66,6% - accompanying diseases. Near relations of 8,3% of patients had diseases of respiratory organs. Diseases of the upper respiratory tracts were revealed more often ($p<0,05$), diseases of upper respiratory tracts were revealed, the smoker's index was lower. All patients had the combination of more than two risk factors. Expressed changes in the cellular link of immunity which were shown by considerable lowering of mature T-lymphocytes, T-helpers, T-effectors, B-lymphocytes were revealed in all examined patients with COLD. Reliable difference in indices of cellular immunity between groups was not revealed ($p>0,05$). Reliable lowering of immunoglobulin of the class A, G ($p<0,05$) was marked in the 1st group of patients in comparison with the 2nd one, acute conditions of the disease were registered more often ($p<0,05$).

Thus, the most considerable risk factors of immunodeficient state's development in COLD both in men and in women are: smoking, accompanying diseases, unfavorable conditions of work, diseases of upper respiratory tracts, stress situations and not rational nutrition. Revealing of risk factors allows to forecast the development of immunodeficient state and work out effective programs of prophylaxis.

77. VIRUS HERPES

Senchenko E., Yshina O. – the 3-d year students.
Scientific leaders – D.m.s., prof. G.I. Chubenko, Ass. A.I. Rudenko.

The cause of infection – a human. Causative agent is transferred by aerial – droopy way in contact, and genital herpes – by sexual way. In a congenial infection a transplacental transmission of virus is possible. The virus of herpes is widespread. The gate of infection – skin or mucous membrane. The incubative period lasts from 2 to 12 days (more often 4 days).

Clinical forms of infection:

Injury of skin (local and prevailing)
Injury of mucous membrane of oral cavity
Sharp respirator diseases
Genital herpes
Injury of eyes (superficial and deep)
Encephalitis and meningoencephalinis
Injury of visceral organs (hepatitis, pneumonia and others)
Herpes of new-born
Herpes in all organism
Herpes in HIV-patients

Genital herpes is caused by the virus of simplex herpes I and II types, discovered which was in 60-th years XX sentry. But in 1912 year Gruter suspected the virus nature of the illness. In the most of cases – 80-85% of genital herpes is caused by simplex viral herpes II type (VPG-II). In 15-20% of genital herpes is caused by viral herpes I type (VPG-I). The number of patients with viral genital herpes-I has considerably increased over the last 10 years, what probably connected with broad wide spread of prevailing society sexual contacts in society. Sometimes the cause of genital herpes can be combination of union 2 types of virus: VPG-I and VPG-II at once. Virus of simplex herpes I and II types are related to subfamily of α-herpes virus (alfa herpes virinae) of family herpes virus (herpes viridae). Types of illness (genital herpes or a cold) in lips, depends on the place of localization in organism. There is a virus for life is founded in ganglion perpetually. Genital viral herpes is in sacral ganglion. In relapse virus on nerves moves to skin of the genitals, hips, buttocks, mucous of vagina. To diagnose aim biological, serological methods, are used and methods of express-diagnostics. Treatment of interferon and antivirus preparations (acyclovir, famcyclo-vir, valacyclovir and others).

78. DIABETIC FOOT: GLOBAL PROBLEM – PERSPECTIVES AND SOLUTIONS.

Zverev, E. Porohova - the **4th** year students
Scientific leaders- Shimko V.V., Teplishcheva M.M.

Diabetes mellitus (DM) is one of the major incapacitating diseases which lead to the high mortality of population that is why DM is acute medical and social problem. The struggle with DM is priority of the national health care system almost in all countries. The expert judgment of DM prevalence allows us to prognose that by the 2010 about the 230 millions of people will have suffered from DM. In 1999 the WHO expert committee defined DM as chronic hyperglycemia syndrome which leads to complications mainly to diabetic foot

(DF).
It was estimated that amputation of the low extremity performs each 30 sec. in patients with complicated DM all over the world (materials of the International conference, SPb, 2008).
Main stages of the treatment which is pointed to the patient's leg saving includes: stabilizing of carbohydrate metabolism, rational antibacterial therapy, struggle with ischemia, treatment of the diabetic neuropathy and local therapy of ischemic wounds.
We have summarized the investigation results of the combined therapy by Berlithione (tioctic acid) and intravenous laser irradiation (ILI) in patients with DM II complicated by diabetic foot syndrome. 13 patients were enrolled in the investigation (9 women and 4 men). Control group was represented by 15 patients. Patients of all group received traditional diagnostic procedures and treatment. During the traditional treatment experimental group patients received Berlithione (600 mg intravenously) combined with intravenous laser irradiation, the wave length was about 450 microns, power on the end of light-emitting diode was 1-1.5 mcWt. Duration of the ILI was about 25 min., course consisted of 10 procedures.
Analysis of our investigation has shown that combined therapy by Berlithione (tioctic acid) and intravenous laser irradiation helps to avoid the extremity amputation in patients with diabetic foot syndrome.

79. THE INFLUENCE OF DIHYDROQUERCETINE ON THE MORPHO-FUNCTIONAL CONDITION OF KIDNEY DURING THE STABLE HYPERGLYCEMIA.

A. Zverev, N. Serzhanova - the 4d year students
Scientific leaders- Krasavina N.P.

At present the diabetes mellitus (DM) is one of the main reasons of high morbidity and mortality of population. In 1981 the committee of the WHO experts definited DM as the syndrome of chronic hyperglycemia as the result of the carbohydrate metabolism disturbance, when the level of exogenous glucose intake with food higher than its consumption by organs and tissues.Diabetes mellitus is urgent medical and social problem, which is belongs to the priorities of the national systems of health care in different countries all over the world.

Chronic hyperglycemia often initiates the development of complications: diabetic retinopathy, microangiopathy, microangiopathy, etc. But the most dangerous complication is chronic renal failure.

That is way the searching and developing of the new remedies which can influence to the main points of the DM pathogenesis is very actual problem which is represents the perspective approach to the therapy and prophylaxis of its complications.
Dihydroquercetine (DHQ) is one of such remedies. It can be referred to the flavonoids and it is notable for the wide range of biologic effects. DHQ is a low-toxicity remedy which has an antioxidant, capillaroprotective, hepatoprotective effects. Also DHQ has antitoxic activity in kidney. But the main effect of DHQ is antidiabetic!

That is way the aim of our work was to study the antidiabetic effect of DHQ in experiment. In experiment were included 3 group of laboratory animals (male rats, the middle mass was 236 g. middle age – 7 months). First group was intact. Second was underwent the hyperglycemia. Rats of the second group received glucose daily for the experimental glycemia simulation during the 8 weeks: orally in dose 1.2 g., intraperitoneal introduction – 0.7 g. Third group received the DHQ (6 mg orally) on the background of hyperglycemia. The level of glycemia was measured by the glucometer one touch BASIC PLUS. The structure of kidney was analyzed morphologically and hystochemically. The products of peroxidation were revealed biochemically in the serum of rats and in the renal tissue.

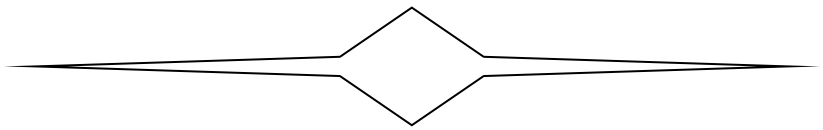
The study of lipid peroxidation indexes on the background of hyperglycemia revealed the growth of diene conjugates (DC) in blood and renal tissue; decreasing of the

tocopherol activity in blood. Using of DHQ does not increase the indexes of glucose blood serum; in addition, we have observed the decrease of the DC level and growth of tocopherol activity.

Renal tissue of rats who received DHQ is closed to normal pattern. The lumen of capsules almost doesn't change. Interlayers of the connective tissue between tubules also have normal structure, but the same cannot be said about neighboring picture, where you can see the morphologic result of hyperglycemia.

Staining to glycosaminoglycans revealed more intensive reaction in the interlayers of connective tissue between the tubules. The quantity of renal corpuscles is significant more in renal cortex than in rats with simple hyperglycemia. The concentration of glycosaminoglycans increased in the external sheet of capsule and in choroid glomus. Homogenous reaction to glycosaminoglycans revealed in basal membrane of receiving tube and in interstitial tissue of the medullary substance.

Thus, DHQ is an effective substance and it has many benefit influences to the metabolic processes and pathologic changes in the kidney on the background of hyperglycemia.



DEUTSCHE ABTEILUNG

1. DER ZUSAMMENHANG ZWISCHEN TRAUMFAHIGKEIT UND FUNKTIONELLE ASYMMETRIE DES HIRNS.

JustschenkoW.–dieStudentin des 2.Studienjahres.
Wissenschaftliche Leiter:Doz. E. Ph. Kiritschenko, N.A.Tkatschjowa.

Die funktionelle Asymmetrie der Gehirnhalbkugel spielt wichtige Rolle bei den Mechanismen des psychologischen Schutzes. Es ist bekannt, dass die Berichte uber Traumen, gemeinsam mit der Einschliessung der Sehkomponenten, sich nach der Hirnspaltung oft erhalten. Diese Tatsache hat eine prinzipielle Wichtigkeit, weil sie bedeutet, dass die Traume auf Grund der funktionellen Moglichkeiten der linken Gehirnhalbkugel geschenen konnen. Viele Forscher vermuten, dass die Rolle bei der Produzierung der Figuren und Traumen der rechte Gehirnhalbkugel spielt, deren grossen Aktivitat bei dem Vorhandensein der neurotischen Zugen der Personlichkeit offensichtlich ist. In den letzten Jahren waren einige Nachweise der Wichtigkeit der rechten Gehirnhalbkugel bei den Traumen erhalfen:

wahrend des schellen Traum wird die hohe Aktivitat der rechten Gehirnhalbkugel bemerkt;

bei der organischen Verletzung der rechten Gehirnhalbkugel wird die Moglichkeit zur Gehaltproduzieren gesunken;

bei dem elektrichen Reiz der rechten Schlafe des Gehirnlappen wahrend neurochirurgisches Eingriffs haben die Patienten uber Erleben erzahlt, die den Traum ahnlich sind. Die scharfste Traume werden in den letzten Traumzyklen bemerkt, aber in diesen Zyklen wird die Aktivitat der linken Gehirnhalbkugel dominiert.Die Aktivitat der rechten Gehirnhalbkugel ist mit bewusstlosen Prozessen, mit der Analyse unverbale Information, mit negativen Emotionen verbunden. Die Aktivitat der linken Gehirnhalbkugel ist mit bewussten verbalen Prozessen und positiven Emotionen verbunden. Die grosse Emotionlabilitat, die geringe Kraft der Hemmung des Nervenerregungsvorganges bei rechten Gehirnhalbkugel werden gezeigt, dass die emotionalpsychologischen Labilitat hier weniger als bei linken Gehirnhalbkugel ist.Es gibt eine Vermutung, dass der Charakter der intergehirnhalftige Asymmetrie sich wahrend des 24 Stunden in gewissen Rythmus verandert: langsamer Traum - schneller Traum.

2. DIE PHYSIOLOGISCHE GRUNDLAGE DER EMOTIONEN

Ignatenko T.- der Student des 2. Studienjahres.
Wissenschaftliche Leiter: Doz. E. Ph. Kiritschenko,N. A. Tkatschjowa.

Die Emotionen sind die notwendigen Unterbauen fur alltagliches und schopferisches Leben der Menschen. Sie sind durch Einwirkung auf den Organismus Rezeptoren, die Hirnrinde der Analysatoren der bestimmten Reizen der Umwelt hervorgerufen. Die physiologische Prozesse, die bei Emotionen erscheinen, sind die Reflexen des Gehirns. Sie werden mit Hilfe Frontalhirns der grossen Gehirnhalbkugel durch vegetative Zentren, limbisches System und retikulatore Formation hervorgerufen. Der Reiz aus diesen Zentren wird durch vegetative Nerven verbreitet, die die Funktionen der inneren Organen verandern und der Eingang der Hormone ins Blut, Mediatoren, Metaboliten hervorrufen und wirken auf vegetative Innervation der Organen. Der Reiz der Vordergruppe der Nuklien der Hypothalamus hinter der Nervenkreuzung ruft parasympathische Reaktione hervor, die den Emotionen charakteristisch sind. Die Erregung der hinteren und lateralen Nukliengruppen ruft sympathische Reaktione. In den einigen Systemen des Organismus herrschen bei Emotionen die sympathische Einwirkungen des Hypothalamus vor, z. B in dem Herz- und Kreislaufsystem. In den anderen herrschen parasympathische Einwirkungen vor, z. B in dem Verdauungsystem. Der Reiz des Hypothalamus ruft nicht nur vegetative, sondern auch motorische Reak-

tionen. Das Ubergewicht des Tonus der sympathischen Nuklien erhoht den Reiz der grossen Gehirnhalbkugel und wirkt dabei auf die Mentalitat. Reizt sympathisches Nervensystem, so steigt die motorische Aktivitat. Bei dem Reiz des parasympathischen Systeme sinkt sie. Ais Ergebnis der Reizung des sympathischen Systems und Vergrosserung des plastischen Tonus kann Muskelstarrung, in bestimmten Katalepsiehaltung eintretten.

4. DIE BESONDERHEITEN DER ARTERIELLEN BLUTVERSORGUNG DER SCHLEIMHAUT DES SPEISEROHRE-MAGEN-UBERGANGES

Die Studentin des II. Studienjahres – W. Tschjugunowa.
Wissenschaftliche Leiter: doz. S.S. Seliwjorstow, N.A. Tkatschjowa

In der Sphinkterologie stellt diese Frage eine grosse theoretische und praktische Interesse dar. Aber in der Literatur ist sie nicht genugend beleuchtet. Durch Methoden der Arterieninjektion mit farbigen Massen, und Erleuchterung der flechlischen Preparaten mit der Unterbringung in die Pakete, mit Histologie und Analyse (Biovision-3 Programm) wird die Arterienbahn der Schleimhaut des Speise-Magen-Ubergangs auf 60 Preparaten von den Menschen 35-60 Lebensjahren untersucht. Es wird bestimmt, dass in die unterschleimige Gewebe des S-M-Uberganges durch muskulose Hulle dringen von 10 bis 16 arteriellen Aste der III. Ordnung mit Durchmesser 0,345 ± 0,042 mm. ein. Nash der Menge, Topographie und Besonderheiten der Asten haben wir 3 Zone der arteriellen Blutversorgung des S-M-Uberganges bestimmt. In der 1. Zone, die der Schleimhaut der Bauchfellraum der Speiserohre entspricht und die 5 cm hoher des Epitheluberganges liegt, werden von 5 bis 10 Arterien der III.Ordnung mit Durchmesser 0,297 ± 0,038 mm bestimmt, die 3-4 Aste bis Ubergang in die Kapillare geben und versorgen mit dem Blut die Speiserohreschleimhaut mit Flache 3,5-4,0 cm^2. In der 2. Zone, die der histologischen Ubergangslinie mit der Breite 1,5-2,0 cm. entspricht, wird die Blutversorgung der Schleimhaut im allgemeinem durch Arterienaste der IV. Ordnung mit Durchmesser 0,132 ± 0,02 mm. verwirklicht. In der 3. Zone, die in der Kardia 3 cm. niedriger als die Linie des Epithelubergangs liegt, stellen sich von 4 bis 8 Arterien der III. Ordnung mit Durchmesser 0,394 ± 0,63 mm. heraus, die bis 5-7 Ordnungsasten geben und die die Schleimhaut mit Flache 1,0 – 1,5 cm^2. mit dem Blut versorgt. Nach der Intensitat der arteriellen Blutversorgung wird also die Schleimhaut der Kardia besser mit dem Blut als die hohere Zone versorgt.

5. H. HEINES NACHLAS.

W. Dorofeewa-die studentin des 1.
Studienjahres Wissenschaftliche Leiter: Prof. E.N. Gordienko, N. A. Tkatschjowa.

Der deutsche Dichter,Publicist und Kritiker H. Heine wurde am 13. Dezembr 1797 im Dusseldorf in einer judixhen Familie geboren. Nach der Beendigung des Lizeums studierte er Wechsclwesen in einem Bankkontor in Frankfurt. Spater arbeitete er als Handlungsgehilfe. Nach 2 Monaten wurde er von seinem Vater nach Hamburg zum Onkel geschickt. Dank seinem Onkel Solomon Heine eroffnete er das kommissionarkontor. Im Jahre 1819 ging Heine an Bonner Universitat, an der juristischen Fakultat. Er besuchte die Vorlesungen in Philologie, Geschichte, Philosophie, Asthetik und Literaturgeschichte am libsten. Spater uber wechselte Heine in die Geffinger Universitat. In 1821 ubersiedelte er nach Berlin. Seit 1821 bis 1823 besuchte er Vorlesungen von Gegel. Im Fruhling 1825 ging er zum Lufhertum, und bekam er die Doktorwurde der juristischen Wissenschaffen. In Jahre 1825 wurde seine (Reisebilder) veroffentlicht, die grosse Erfolg hat, aber wurde in vielen Stadten verbofen. Am Ende 1927 ubersiedelte er nach Munchen, wo er als redakteur in der Zeitung (Politische annalen) tatig war. Seit 1831 fuhr er nach Frankreich und wurde als politische Emigrant. Dort studierte er die Werke von utopischen Sozialisten. Auch lernte er

mit dem jungen K. Marks kennen. Im Jahre 1846 erkranken Heine sehr schuer und hutete er das Bett zu den letzten Tagen seines Lebens. Damals schriebt er (Romanssero), (Lasar), (Die letzte Gedichte) u. a. m. Im 1856 starb Heine in Paris. Er wurde in dem Friedhof Monmart begraben. Zum Heines Ehren wurde ein Mausoleum auf Korfninsel nach dem Osterreicher Kaiserin Elisaweta besstelen. Im Jahre 1900 wurde einfaches Grabmal mit 2 Wotern (Henri Heine) auf neues, das im Rom von Osterreicher Kaiserin Elisaweta bestellen wurde, ersetzt.

6. BEHANDLUNG DER EITRIG - NEKROTISCHEN SCHADIGUNGEN DES FUSSES BEI DER ZUCKERKRANKHEIT

E. Nikischina - Studentin des 3. Studienjahres
Wissenschaftliche Leiter - Prof. N. P. Wolodtschenko, O. A. Kornewa.

Zur Zeit beobachtet man die Morbiditatszunahme der Zuckerkrankheit, in einigen Landern erreicht ihr spezifisches Gewicht in der Krankheitsstruktur 6%. Jeder zweite Zuckerkranke wird operiert, jeder vierte von ihnen - wegen der eitrig - nekrotischen Komplikation.

Wir haben die Behandlungsergebrisse von 128 Kranken mit dem Syndrom diabetischer Fuss analysiert. Unter diesen Kranken waren 92 (71,8%) Frauen, 36 (28,9%) Manner im Alter von 40 bis 70 Jahren. Der grosste Teil der Kranken war alter als 60 Jahren (86 Menschen). Die Krankheitdauer betrug bei der Zuckerkrankheit von 3 bis 21 Jahren.

Bei der Einlieferung wurden alle Kranken komplex untersucht. Kohlenhydratstoffwechsel, klinische und biochemische Blutanalyse, rentgenologische Fussuntersuchung, Aussat zur Wundflora, Analyse von Zytogramm des Wundproesses, Dopplegrophie der unteren Gliedmassengefassen wurden durchgefuhrt.

Unter den festgestellten Mikroorganismen wurde Staphylococcus aureus dominiert. Unter den Formen des Syndroms des diabetischen Fusses wurde in 79% der Uberwachungen neuropatischinfezierte Form festgestellt, in anderen Fallen (21%) wurde gemischte Form festgestellt.

Die Behandlung der Kranken mit dem Syndrom diabetischer Fuss wurde mit dem Endokrinologe durchgefuhrt und hatte einem Komplexcharakter:

Fussentlastung;
chirurgische Bearbeitung des Eiterherdes im Fussbereich;
Korrektur der Gefassstorungen
zuckersenkende Therapie
Antikoagulanzien, Antioxygemittel.

Die chirurgische Bechandlung bestand aus folgenden Massnahmen: Eitersackeroffnung (30 Kranken), Nekrektomie (34), Zehenamputation (42), Extremitatamputation (22). Durschschnittliche Behandlungsdauer betrug 30,5 Pflegetage.

Rechtzeitige Komplexbehandlung gibt die Moglichkeit im ersten Tag bei den Kranken den Zustand der Dekompensation zu beseitigen und die organerhaltenden Operationen am Fuss durchzufuhren.

7. TORCH-INFEKTION

L. Rubanova- Studentin des 5. Sludienjahres
Wissenschaftliche Leiter – L.G Cholodok, O.A Kornewa

Die Abbreviatur TORCH wird auf folgende Weise entziffert : Toxoplasmosis, Rubella (Rotteln), Cytomegalovirus (Zytomegalievirusinfektion) und Herpes simplex virus.Jeder dieser Erreger ist fur den Mensch, der verringte Immunresistenzreserven hat, sehr gefahrlich. Man kann Risikogruppen absondern: Schwangere, Sauglinge bei der intrauterinen Anstechung, AID-Infizierte, Organen- und Gewebenempfanger, Patiente, die immunosup-

pressiv wegen onkologischer Erkrankungen behandelt werden. Die Feststellung der primaren Ansteckung ist bei der Diagnostik der TORCH-Infektionen sehr wichtig So, z. B uberschreitet die Haufigkeit der intrauterinen Ansteckung der Frucht im Falle der primaren Infektion wahrend der Schwangerschaft 50 %. Die andere Besonderheit der TORCH- Infektionen ist die Schwierigkeit der Deutung von Ergebnissen der serologischen Untersuchung der Antikorper im Blut, wann das Vorhandensein des Immunoglobulins der M-Klasse (Ig M) kein ausreichende Merkmal fur die Feststellung des Krankheitsstadiums ist. Also, wenn man eine Schwangerschaft plant, muss man das Vorhandensein der TORCH-Infekfionen untersuchen. Wird die primare Ansteckung mit den Infektionserregern wahrend der Schwangerschaft nachgewiesen werden, muss man die Perinataldiagnostik der Frucht durchfuhren, um die angeborene Missbildung auszuschliessen und die Intrauterinansteckung zu verhuten. Was den eifachen Herpesinfektion anbetrifft, so muss man nicht nur das Vorhandensein der Abwehrimmunitat der Frau festzustellen, sondern auch die konkrete Virusvariante (1 oder 2) bei den beiden Partnern zu bestimmen.

8. BESONDERHEITEN DES EISENAUSTAUSCHES WAHREND DER ANTENATALPERIODE.

A.Kaschtschenko – Studentin des 5. Studienjahres
Wissenschaftliche Leiter - L.G.Cholodok, O.A.Kornewa

Das Eisen ist ein wichtiges Mikroelement des Organismus, das ein obligatorischer Bestandteil vieler Hamoproteide und Enzymen ist.

Anfangsreserve eines Kindes werden dank seiner antenatalen Zufuhr von einer Mutter durch eine Plazenta geschafft. Dieser Prozess verlauft wahrend der ganzen Schwangerschaft aber von den 28. – 32. Gestationswochen besonders aktiv.

Das Muttereisen, als Bestandteil des Transferrins, wird mit dem Blutstrom zur Plazenta zugestellt. Die Eisenzufuhr durch die Plazenta ist ein aktiver Prozess, der nur in einer Richtung – von einer Schwangere zur Frucht moglich ist. Das Eisen, das zur Plazenta durch Muttertransferrin zugefuhrt ist, wirkt mit den spezifischen Rezeptoren des Burstensaums der Mikrozotten zusammen. Ein Teil des Eisens wird nach der Lieferung in die Plazenta in der Zusammensetzung des Plazentaferrins deponiert und der andere Teil wird mit dem fetalen Transferrin verbindet und gelangt direkt in den Blutstrom der Frucht. Das Fruchttransferrin «liefert» das Eisen ins Knochenmark, wo die Erythrozytensynthese vorlauft und in die Gewebe, wo das Eisen ein Bestandteil verschiedener Fermentensysteme ist. «Der Eisenuberschuss» wird in der Leber, in den Muskeln als Ferritin deponiert.

Also, bekommt ein ausgetragener Saugling beim physiologischen Verlauf der Schwangerschaft und der Entbindung antenatal bis 250-300 mg des Eisens, was durchschnittlich 70-75 mg/kg des Korpergewichts entspricht.

9. BESONDERHEITEN DER ZUCKERKRANKHEIT DES II. TYPS BEI DEN ALTEN PATIENTEN.

A.Sudnikowa – Studentin des 5. Studienjahres
Wissenschaftliche Leiter – Strunina J.Z. Kornewa O.A.

Das Problem der Zuckerkrankheit erwarb im 21. Jahrhundert den Maßstab der Globalepidemie. Die Zahl der Zuckerkranken nimmt im alteren Lebensalter (65 Jahren) besonders schnell zu. Nach den Angaben der dritten Uberprufung des nationalen Gesundheitsregisters der USA betragt die Verbreitung der Zuckerkrankheit des II. Typs im Alter von 60 Jahren etwa 8% und erreicht im Alter von 80 Jahren der maximalen Werte (22-24%). Die gleiche Tendenz beobachtet man auch in Russland. Diese Zunahme der Zuckerkrankheitsverbreitung ist mit einer Reihe der Besonderheiten verbunden.

Klinische Besonderheiten.
Die Schwierigkeiten bei der Diagnostik der Zuckerkrankheit des II. Typs entstehen bei den alten Patienten infolge des symptomlosen Verlaufs dieser Krankheit. Nicht selten wird der Typ II Diabetes mellitus zufallig bei der Untersuchung anderer begleitenden Erkrankung oder wahrend der Operationsvorbereitung festgestellt. Der latente, klinisch nicht ausgepragte Verlauf der Zuckerkrankheit bei den alten Patienten fuhrt dazu, dass die Diagnose des Typ II Diabetes mellitus gleichzeitig mit der Erkennung der Gefasskomlikationen dieser Erkrankung gestellt wird. Nach den Angaben der epidemiologischen Untersuchungen ist nachgewiesen, dass mehr als 50% der Kranken zum Moment der Registration der Diagnose schon Mikro- und Makrogefasskomlikationen haben:

ischamische Herzkrankheit (30% der Kranken);
Schadigung der unteren Gleidmassergefasse (30%);
Schadigung der Augengefasse (Retinopathie) 15%;
Schadigung des Nervensystems (15%);
Mikroalbuminurie (30%);
Proteinurie (5-10%);
chronische Niereninsuffizienz, Uremie (1%)

Der Zuckerkrankheitsverlauf wird bei den alten Patienten durch den Uberfluss der poliorganischen Pathologie erschwert. 50-80% der Patienten mit dem Typ II Diabetes mellitus haben arteriele Hypertonie und Dyslipidamie, die eine medikomentose Korrektur brauchen. Die vorgeschriebenen Praparate konnen den Kohlenhydrat – und Lipidstoffwechsel storen. Die wichtige klinische Besonderheit des Typ II Diabetes mellitus ist im alteren Lebensalter die gestorte Erkennung der hypoglykamischen Zustande, was zu den schweren hypoglykamischen Komata fuhren kann. Die Intensitat der autonomen Symptome der Hypoglykamie (Herzklopfen, Zittern, Hungergefuhle) ist bei solchen Kranken am meisten gestort.

10. EPIDEMIE, UBER DIE NICHT VIELE KENNEN.

O.Lysak-Studentin des 4.Studienjahres
Wissenschaftliche Leiter-A.W.Krugljakowa, O.A.Kornewa.

80 % der Bevolkerung leidet an der chronischen Gastritis. Das hangt zum grossen Teil vom Fehlen der Ernahrungskultur ab. Die Menschen ernahren sich im Laufen.Ausser falscher Ernahrung gibt es aber noch eine und vielleicht die Hauptursache der Magenkrankheiten.

2005 erhieltet australische Wissenschaftler Barri Marschall und Robin Worren den Nobelpreis fur Medizin. Sie endeckten den Mikroorganismus, der zu der Entstehung der chronischen Gastritis, des Magengeschwurs und des Magenkrebses beitrug. Er wurde Helicobakter pilori genannt. Etwa zwei drittel der Bevolkerung ist mit diesem Microorganismus infiziert. Man kann sagen, dass es um eine richtige Epidemie handelt. Der grosste Teil der Infezierten fuhlen zeitweilig keine unangenehmen Symptome.

Barri Marschall und Robin Worren vermuteten, dass Magenerkrankungen durch einen spezifischen Erreger hervorgerufen wurden. Sie versuchten lange Zeit diese Mikrobe auf der Magenschleimhautkultur zu zuchten. Ihre Misserfolge wurden mit ihrer Eilfertigkeit verbunden. Sie warfen zu schnell die Petrischale mit der Aussat.1982 vergass Barri Marschall im Schalethermostat den Magenabstrich und spater entdeckte er Mikroorganismenkolonien, die er

in Pathogenitat vermutete.

Der Artikel, der die Wissenschaftler veroffentlichten erregte zuerst Misstrauen. Barri mit seinem Freund tranken dann die Kultur Helicobakter pilori. Sie bewisen damit, dass diese Bakterien die Ursache der Magenkrankheiten sind. Die durchgefuhrte Biopsie bestatiegte in beiden Fallen, dass in der fruher gesunden Magenschleimhaut die fur die Gastritis charakteristische Veranderugen begonnen wurden. Das Bakterium kann durch das infizierte Wasser, Bestecke, schlecht gewaschene Rohgemuse ubertragen.Es ist sehr bestandig, passt sich immer den veranderten Bedingungen an.Helicobacter pilori stimmuliert die Magensanftsekretion.Die in Ubermengen produzierte Salzsaure schadigt die Magen und Zwolffingerdarmwand und bildet Erosion und Geschwure.

1994 wurde Helicobacter pilori durch die Weltgesundheitorganisation als Karzinogen erkannt. Zaahlreiche Untersuchungen bewiesen die Richtigkeit dieser Feststellung.

11. ANALYSE DER URSACHEN DER INJEKTIONSABZESSE

S.Rzaewa – Studentin des 3.Studienjahres
Wissenschaftliche Leiter – Prof. N. P. Wolodtschenko, O. A. Kornewa.

In den letzten Jahren nimmt die Zahl der eitrigen Komplikationen nach den verschiedenen Manipulationen bei den Kranken zu und erreicht von 4 bis 10%. Jahrlich werden in Russland bis 120000 Kranken mit den Injektionsabszessen registriert. Die Letalitat ist dabei bis 2 %.

Die Verwendung der Injektionen ruft die Destruktionsprozesse an der Injektionsstelle hervor. Diese Praparate, mit hoher Osmalalitat werden mit den Kuren vorgeschrieben, die Injektionen werden mehrmals, oft in eine Stelle gemacht, in der Regel den Patienten mit den schweren Storungen des Herz – Kreislauf -, Atmungs -, und Endokrinsystems, die oft Gewebshypoxie und trophische Storungen haben.

Die eitrigen Komplikationen werden am meisten bei den Personen entwickelt, die zu Hause von den Krankenschwestern, Feldschern der Notfallmedizin, Verwandten gespritzt werden.

Die Senkung der Injektionsabszesse in den letzten Jahren auf dreimal konnen wir durch die Verwendung der einmaligen Spritzen und die Steigerung der Arbeitsqualitet der medizinischen Kader erklaren.

Von den Praparaten, die den Kranken mit den Komplikationen gespritzt werden, dominieren Dyklophinak und Vitamine der B – Gruppe. Man muss nachdrucklich empfehlen, die Injektionen mit diesen Praparaten nur in den medizinischen Einrichtungen zu machen und die Aseptikregel zu beachten.

12. ANALYSE DER NESSELSUCHTSMORBIDITAT NACH DEN ANGABEN DES AMURER GHVDS

D. Suewa – Studentin des 4. Studienjahres
Wissenschaftliche Leiter – I. S. Kotowa, N. E. Melnitschenko, L. N. Fedotowa, O. A. Kornewa

Die Nesselsucht ist eine heterogene Krankheitsgruppe, die durch einen Hautausschlag charakterisiert. Für alle Arten der Nesselsucht ist einen allgemeinen pathogenetischen Mechanismus charakteristisch – Permeabilitatssteigerung der Endstrombahngefasse und akute

Entwicklung des Odems im Bereich dieser Gefasse. Unter den allergischen Erkrankungen nimmt die Nesselsucht den 2. Platz ein. Nach den Entwicklungsmechanismen unterscheidet man allergische, autoimmunale, nicht allergische und idiopatische Erkrankungsformen und nach dem Verlauf – akute (bis 6 Wochen) und chronische Erkrankungsformen.

Wir haben 55 Krankheitsgeschichten der Kranken analysiert, die mit der Diagnose „Nesselsucht" in der Hautabteilung des GHVDs von 2003 bis 2005 stationär behandelt wurden. Die Morbiditatsentwicklung sieht auf folgende Weise aus: 2003 wurden 29 Menschen hospitalisiert (52,7 %), 2004 – 20 Menschen (36,3 %), 2005 – 20 Menschen (10,3 %). 31% (17 Menschen) sind Männer, 69% (38 Menschen) Frauen.

Morbiditatskennziffer war in Altergruppen so: im Alter von 10 – 20 Jahren – 7 Menschen (12,7%); 21 – 30 Jahren – 6 Menschen (10,9%), 31 – 40 Jahren – 10 Menschen (18,2%), 41 – 50 Jahren – 12 Menschen (21,8%), 51 – 60 Jahren – 12 Menschen (21,8%), mehr als 60 Jahren – 8 Menschen (14,5%).

Von den Angaben der Krankheitsgeschichten ausgehend kann man Faktoren nennen, die zur Nesselsuchtentwicklung beitragen. Das sind alimentarer (Schokolade, Zitrusfrüchte, Nahrungszusatze, Wassermelone, Melone, Bier, Joghurt) - 25,4%, chemischer (Gegenstande der Haushaltchemie, Tarbstoffe, Lacke) – 14,5%, Arzneifaktor (Kontrazeptiva, Serum) – 9%, Stiche (Mucken, Bienen) – 3,6%, Infektionsfaktor – 1,8%, physikalischer (Kalte) – 5,4%.

Klinische Beobachtungen zeugen von der häufigen Feststellung bei den Kranken mit der Nesselsucht die Herde der chronischen Infektion der Hals – Nasen – Organe (20% der Falle), Fehlbildung des Verdaungs – und Urogenitalsystems (40% und 10,9%), Herz – Kreislauf – Erkrankungen (18,2%), Erkrankungen des Bindegewebes und atopische Dermatitis (5,5%), Onkopathologie (10,9%).

Die Ursachen der Erscheinung der Urtikalelemente sind sehr verschieden. Um die Diagnose zu stellen, muss man die Kranken gründlich untersuchen.

13. MORPHOLOGISCHE BESONDERHEITEN DER BAKTERIELLEN INFEKTIONEN BEI DEN NEUGEBORENEN

J.Garmanowa – Studentin des 4. Studienjahres
Wissenschaftliche Leiter – O.S.Jutkina, O.A.Kornewa.

Die Infektionspathologie der Neugeborenen ist ein fuhrendes Problem der Padiatrie.

Klinisch-immunologische Untersuchung 124 Neugeborenen, Histologie und Morphometrie der Immunogenesenorgane bei 30 gestorbenen Kindern wurden durchgefuhrt.

Akute Entzundung der Geschlechtsorgane der Mutter wahrend der Schwangerschaft, fruhzeitiger Erguss des Fruchtwassers bei der Entbindung, Entzundung und Distrophie der Plazenta beeinflussen die Entwicklung einer entzundenden Pathologie bei den Neugeborenen.

Bei den Neugeborenen mit den eitrig-entzundenden Erkrankungen wurde die Unterdruckung der zellularen Immunitat festgestellt. Bei der morphologischen Untersuchung der Immunogenesenorgane wurden bei diesen Kindern bezuglich der Vergleichsgruppe keine Veranderungen nachgewiesen.

Bei den Neugeborenen mit der Sepsis wurde eine starke Unterdruckung der zellularen und der humoralen Immunitat festgestellt, die morphologisch nachgewiesen wurde: im Timus das vierte Stadium der akzidentalen Involution, Senkung des Lymphozyt-Epitel-Quotients auf dreimal. In den Lymphknoten beobachtet man die Verdehnung des Randsinuses.

Auf Grund der gewonnenen Angaben wurde eine Tabelle der Prognosierung von der Entwicklung und dem Ausgang der eitrigen Infektionskrankheiten bei den Neugeborenen ausgearbeitet und folgende Gruppen abgesondert: niedriger Infektionsrisiko, Risiko der Entwicklung von leichten Formen der eitrig-entzundenden Krankheiten, Risiko der Entwicklung von schweren Infektionsformen, Letalitatsrisiko. Das vorgeschlagene Prognosierungssystem ermoglicht die vorklinische Diagnostik der Infektionskrankheiten bei den Neuge-

borenen durchzufuhren, vorbeugende Therapie vorzuschreiben und das Morbiditatsniveau und das Niveau der Neugeborenensterblichkeit zu senken.

14. DAS GEHEIMNIS DES TODES VON NAPOLEON

Simanowskaja O. - Studentin des 4. Studienjahres
Wissenschaftliche Leiter – k.m.w. L.W. Krugljakowa; O.A. Kornewa

Uber das Leben des bekannten Korsikaners sind viele Bucher geschrieben. Sein Weg zu den Hohepunkten der Macht, seine glanzende Siege und Misserfolge bleiben noch heute den Untersuchungsobjekt. Die Umstande seines Todes sind keine Ausnahme. Napoleon starb im Alter von 52 Jahren. Dieser Alter ist nicht vorgeruckt und Napoleon war immer sehr gesund.

Man glaubte lange Zeit, dass Napoleon vergiftet wurde. Nach seiner Niederlage bei Waterloo am 18. Juni 1815 dankte er den Thron ab und wurde nach den Insel des Sankt Helenas im Atlantischen Ozean geschickt. Von hier aus nimmt ihren Anfang die Version uber die Vergiftung von den Englandern.

Die medizinischen Analysen, die 1821 durchgefuhrt wurden, bestatigten das Vorhandensein von Arsen in Napoleons Haare. Die Memorien seines Leib – Arztes Frantschesko Antomartschi bestatigten die Fakten uber die Vergiftung nicht. Er schrieb uber die Magenerkrankung seines Patienten.

Die gefundenen Arsenreste konnten nicht unbedingt von einem Vergifter in den Korper gebracht werden. In jener Zeit wurden die Weinfasser mit der Flussigkeit gewaschen, die das Arsen hatte. Die schadlichen Verdampfungen stammten von den Tapeten.

Viele Forscher meinen, dass 1815 Napoleon an der Gastritis erkrankte, die zur Entwicklung des Geschwurs, das zu 1820 bosartig wurde. Vor 4 Jahre vor seinem Tod fuhlte Napoleon Magenschmerzen, Ubelkeit, Kopfschmerzen.

Jm Oktober 1820 wurde sein Zustand schlechter. Er veranderte sich ausserlich. Napoleon sagte: «Jede Tatigkeit ist fur mich eine Herkulesaufgabe». Napoleon starb wegen des Blutergusses.

15. MORPHOFUNTIONELLE CHARAKTERISTIK DER CHRONISCHEN BRONCHITIS IN VERSCHIEDENEN STADIEN CHRONISCHEN LUNGENHERZENS.

I.Suworowa, A.Matweewa, E.Pendjurowa – Studenten des 3.Studienjahres
Wissenschaftliche Leiter – E.W.Dubjaga, O.A. Kornewa

Die chronische obstruktive Bronchitis ist eine diffuse langsam fortschreitende entzundede Schadigung des Bronchialbaums, die bei den Personen mit der Erbanlage wegen der dauernden Bronchienreizung entsteht. Diese Erkrankung charakterisiert sich mit der Drainagefunktion des Bronchialbaums, was sich in Husten, Auswurfabsonderung und Atemnot außert und zu den unheilbaren Komplikationen, z.B. Lungenherz fuhrt.

Das chronische Lungenherz ist eine Hypertrophie und (oder) Dilatation des rechten Ventrikels, die sich wegen der Struktur betreffenden und der Lungenfunktion storenden Erkrankungen entwickelt. Vom Kompensationszustand abhangig unterscheidet man kompensiertes und dekompensiertes Lungenherz.

Das morphologische Bild der Bronchitis andert sich je nach der Verlaufsdauer. In den Bronchien uberwiegen Kompensations– und Schutzprozesse, die sich in der Hypertrophie und der Strukturhyperplasie außern. Wahrend des dauernden Verlaufs des Bronchitis werden im morphologischen Bild der Segmentbronchien die sklerotische Veranderungen beobachtet.

16. ALTERTUMLICHE REZEPTE

J. Jarowaja – Studentin des 4. Studienjahres
Wissenschaftliche Leiter – k. m. w. Krugljakowa L. W; O.A. Kornewa

Fur den gegenwartigen Arzt ist ein Rezepaustellen sehr ublich. Kennen sie, wann die Rezepte in die Medizinpraxis eingegangen sind? Was haben die altertumliche Arzte seinen Patienten empfohlen? Die Heimat der altertumlichen medizinischen Untersuchungen ist eine der Stadte Hismer Nippura, wo 1889 die Keilschrifttafel mit 15 Rezepten gefunden wurde, die am Ende des 3. Jahrhunderts vor unserer Zeitrechnung geschrieben wurden. Dank diesem Fund konnen wir heute eine Vorstellung uber den Charakter der altertumlichen Medizin bekommen. Die Schumerarzte benutzten zum grossten Teil die Pflanzen als Arzneien: Fruchte des Pflaumenbaums, Senf, Tanne, Kiefer, Birne u.a. Ausserdem bestanden die Arzneien aus Ol, Pech, Salz und anderen Miniralien. Ein Beispiel: “Man muss den trokenen Schlamm zerstossen, mit dem Wasser kneten und als heisser Umschlag benutzen.” Wollen wir die Bestandteile eines Rezepts vom Standpunkt der modernen Medizin betrachten: “Man muss den zerkleinerten Schildkrotepanzer , Salz und Senf durchsieben und tuchtig vermischen. Die kranke Stelle muss man mit dem starken Bier und heissem Wasser waschen, mit dem Ol einreiben, nachdem muss man diesen Gemisch auf die kranke Stelle auflegen und mit dem Tannennadelpulver bedecken.”

Schildkrotepanzer ist z.B. die Quelle der Mineralsalzen und anderer bilogisch aktiven Stoffen. Senf hat eine ortliche Reizwirkung. Salz ist auch heute als mikrobizides Mittel sehr verbreitet. Was den Ol anbetrifft, so wird heute eine grosse Anzahl von Arzneimitteln auf seiner Grundlage produziert.

Die Wissenschaftler vermuten, dass Wodka im Altertum als “starker Bier” genannt wurde.

Tannennadel sind an Vitaminen atherischen Olen reich. Heutzutage werden in Medizin Fichtennadelbader verwendet.

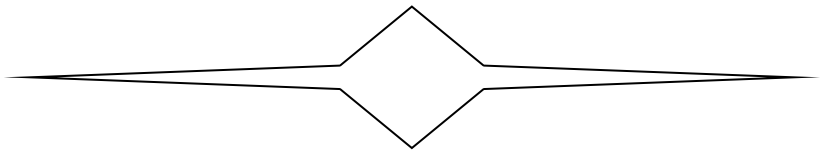
Unter der detaillierten Untersuchung ergibt sich, dass das altertumliche Rezept modern ist und es bei den Entzundungskrankheiten der Gefasse verwenden konnte. Die moderne Medizin verwendet viele Mittel der altertumliche Arzte.

17. DAS LEBEN IM SCHLAF.

Stscherbinina Ju.- die Studentin des 2. Studienjahres.
Wissenschaftliche Leiter: Doz. E.Ph.Kiritschenko, N.A.Tkatschjowa.

Man kann im Schlaf nicht das sehen, was unser Gehirn jemals nicht wahrgenohmen hat. Wahrend des Schlafes kann in unserem Gehirn nur das aufleben und auftauchen, was ehemals einen Spur in den Nervenzellen unseres Gehirns lasst. Das Bewusstsein kann aus dem Gedachtnis nur das herausnehmen, was war dorthin irgendwann «gelegt». «Legen» wir in das Gedachtnis nichts, so konnen wir nichts herausziehen. Es ist bekannt, dass die Blinde keine visuelle Bilder im Schlaf sehen. Im Gehirn kommt als im Kino wahrend kurzer Zeit das ganze menschliche Leben vor. Und phantastische Bilder scheinen uns als reale. Also, was ist der Schlaf? Vor kurzem war die Antwort der Wissenschaft solch ein: das ist eine Pause (d.h. Erholung) der Nervenzellen der Hirnrinde. Genauer gesagt ist es ein Prozess der Schutzhemmung, der die Neurone Hirnrindezelle einnimmt und sich allmahlich auf tiefere Hirnteile verbreitet.Dabei horen Neurone auf kommende Signale zu antworten auf. So sind fur den Schlaf die Hirnrindezelle verantwortlich. Und nur neue Forschungen haben gezeigt, das es alles etwa kompliziert ist. In den 30. Jahren hat der beruhmte Wissenschaftler P.K. Anochin gesagt, dass in dem Mechanismus des Schlafes gemeinsam mit den Hirnrindenzellen auch Unterrindegebiet teilgenohmen hat. Die Forschungen haben

gezeigt, das es wahr ist. Das war endeckt, wenn die Wissenschaftler die Arbeit der Gehirnteile ausfuhrlich erforschen beginnen. Sie erforschen auch die Gehirnteile, die sich unter grossen Gehirnhalbkugel befinden. Besonders war fur die Wissenschaftler die Netzbildung oder Netzformation im Gehirnstamm interessant. Es war bestimmt: trennt man den Hirnstamm von grossen Hirnhalbkugel, so wird das Tier (es waren Tiervesuche) in den testen Schlaf versinkt. Es wurde klar, dass genau hier, im Gehirnstamm, irgendeiner Mechanismus wirkt, der unseren Schlaf bildet.



SECTION du FRANCAIS et du LATIN

1. LA MANOEVRE DU RECRUITEMENT DES ALVEOLES AVEC LE DISTRESS-SYNDROME RESPIRATOIRE AIGU: SON USAGE A` L'HOPITAL CLINIQUE REGIONAL AMOURSKAJA.

Soultankina J- et-te de la 5 annee.
Dirigents scientifiques-ass. O.L. Niselnik, S.I Nasarkina.

Le distress-syndrome respiratoire aigu du troisieme-quatrieme stades a les symptomes de l`insuffisance respiratoire aigue grave, essentiellement en resultat de l`atelectasie des alveoles et de la fraction haute du shunt (Qs/Qt). La manoeuvre du recruitement des alveoles est une des methodes fondamentales actuelles, qui permettent d`obtenir l`ouverture des alveoles de l`atelectasie et le soutien de l`oxygination suffisante du sang avec le distress-syndrome respiratoire aigu. C`est une methode nouvelle inetudiee probablement dans la therapie intensive nationale et qu`on n`employait pas a l`hopital clinique regional Amourskaja.

Le but de la recherche**:** etudier l`effectivite de l`usage de la manoeuvre du recruitement des alveoles dans notre l`hopital clinique regional avec le distress-syndrome respiratoire aigu du troisieme-quatrieme stades et marquer des particularites generales de son execution avec la pathologie.

Les matieres et les methodes**:** En 2007 ans on a employe la manoeuvre du recruitement des alveoles chez 5 malades, qui se traitaient dans la salle de la reanimation et de la therapie intensive a l`hopital clinique regional Amourskaja. On a traite les malades avec "sepsis" et le distress-syndrome respiratoire aigu en resultat de la pathologie suivante: la pancreatite aigue (3 malades), la pneumonie bilaterale aigue (1 malade); la cholangite purulente aigue (1 malade). On a fait la manoeuvre du recruitement des alveoles par le respirateur "Servo" avec l`augmentation de la pression positive a la fin de l`expiration a 20 cm de H2O aux malades après la sedation profonde avec le myoplegie. Les criteres de la cessation de la manoeuvre etaient l`augmentation "sp02" a 95 % et "pa 02/ Fi 02 de 300 a 350. La duree de l`execution de la manoeuvre compose 1 – 1,5 heures. Apres l`execution de la manoeuvre le soutien respiratoire continuait en regime de la ventilation artificielle traditionnelle des poumons avec la coduite de la pression.

Les resultats de la recherche: En resultat de l`execution de la manoeuvre on a marquee l`augmentation stable "pa 02/ Fi 02 " de 350 a 380 chez les malades examines. Les radiogrammes de controle du thorax ont montre l`abaissement l`infiltration bilaterale des poumons. L`infiltration a disparu completement après 12 heures pendant l`execution de la manoeuvre decrite chez 2 malades. Le niveau moyen de la pression positive a la fin de l`expiration exigee pour "l`ouverture" des alveoles a compose 13 – 17 cm H2O, tout de qu`est plus bas des donnees des chiffres, qui etaient decrites a la literature (22 – 25 cm H2O). On a employe la plus haute pression positive a la fin de l`expiration a 20 cm chez un malade. On a marque chez deux malades l`hypotension arterielle de courte duree qui exigeait une utilisation des sympathomimetiques (Dofaminum) en dose de 5 – 6 mkg/kg/min. On n`a pas marque chez les malades des compliquations avec la pression haute dans les voies respiratoires pendant en expiration.

La conclusion: La manoeuvre du recruitement des alveoles avec le distress-syndrome respiratoire du troisieme-quatrieme stades a fait la premiere approbation clinique dans l`hopital clinique regional Amourskaja et a montre l`effectivite haute de la stabilisation de l`echange gazeux pulmonaire et de la normalisation des parametres de la composition gazeuse du sang dans cette pathologie. Le niveau moyen de la pression positive a la fin de l`expiration permis d`obtenir "l`ouverture" des alveoles, a compose de 13 a17 cm H20.

2. LA FONCTION DE LA REPRODUCTION CHEZ LES FILLETTES ET CHEZ LES ADOLESCENTES AVEC L'ANOMALIE CONGENITALE DE L'EVOLUTION DE L'UTERUS ET DU VAGIN

Mavzutova F. – et-te de la 5 annee
Dirigents scientifiques- ass. D.S. Lyssjak, S.I. Nasarkina

Le but de la recherche: elaborer le standard de l`examen et de la correction chirurgicale des anomalies congenitales de l`evolution de l`uterus et du vagin chez les fillettes et chez les adolescents pour garder la fonction de la reproduction.

Les matieres et les methodes de la recherche: On a examine 91 fillettes et les adolescentes avec l`anomalie congenitale de l`evolution de l`uterus et du vagin a l`age de 10 – 18 ans. L`appreciation retrospective de l`evolution de la grossesse, de l`accouchement et de l`etat des nouveau-nes etaient faite chez 80 femmes, 23 femmes desquelles etaient après la correction chirurgicale avec des anomalies congenitales de l`evolution de l`uterus et du vagin et la pathologie gynecologique congenitale a l`age adolescente (2 groupe) et 57 femmes etaient avec les anomalies incorrigees (3 groupe).

Les resultats de la recherche et leur discussion: L`age moyen des fillettes et des adolescents a compose 15,9 + 0,5 ans, mais l`age predominait de 15 a 18 ans. L`heredite gravee du cote de la mere a constitue 45,7% et du cote du pere a compose 18,6%. Les vices congenitales de l`evolution des autres organes et des systemes du cote de la mere a constitue

9,9 %, du cote du pere a constitue 1,4%. Les plus frequentes complications de la grossesse des meres des fillettes du premier groupe etaient: la menace de l`avortement (14,2%) et l`insuffisance placentaire chronique qui a compose 28,5 %.

La frequence de la combinaison de l`anomalie congenitale de l`evolution de l`uterus et du vagin avec les anomalies du systeme de l`urination compose 33 % et plus souvent avec les vices asymetriques.

La conclusion: A la base de l`algorythme elabore de l`examen et de la correction chirurgicale de l`anomalie congenitale de l`evolution de l`uterus et du vagin et de la pathologie gynecologique concomitante chez les fillettes et les adolescents on a propose le standard de l`examen et du traitement avec le but de l`optimisation du choix des mesures diagnostiques et le volume de la correction chirurgicale qui sont adresse a la conservation des fonctions de la reproduction.

3. LES FAUTES DE L'EXPERTISE DE L'INVALIDITE PROVISOIRE CHEZ LES MALADES DE LA MALADIE OBSTRUCTIVE CHRONIQUE DES POUMONS DANS LE TRAVAIL DU MEDECIN DE LA PRATIQUE GENERALE.

Soultankina J., Mavzutova F. – et-tes de la 5 annee
Dirigents scientifiques – ass. De prof. O.J.Lakotsenina, L.I.Chpiltchouk

L'importance medico-sociale des maladies des organs de la respiration est determine par le poids specifique assez haut dans la structure de la morbidite de l'invalidite et de la mortalite de la population. La morbidite de la perte de la capacite provisoire de travail donne la presentation de l'etat de la sante de la partie capable de travailler de la population qui occupe de travail social. En meme temps elle represente la qualite et l'efficacite de l'assistance medicale, montre les defauts dans ce travail. Dans le travail du medecin de la pratique generale acquerit l'importance particuliere l'appreciation d'expertise qualifiee de la capacite de travail des malades. La maladie obstructive chronique des poumons a rapport au monde des maladies qui sont le premier d'apres le nombre des jours de l'invalidite provisoire, les causes de l'invalidite et de mortalite.

Le but de ce travail: l'appreciation de la qualite de l'expertise de l'invalidite provisoire chez les malades de la maladie obstructive chronique des poumons dans les conditions de la pratique medecine generale.

Retrospectivement on est critique 234 dossiers sanitaires des malades avec la maladie obstructive chronique des poumons verifiee. Tous les malades avaient l'invalidite provisoire pendant l'annee de calendarier. Les fautes de l'expertise ont revele en 37 (15,8%) cas. Le volume insuffisant des examens de l'argumentation de l'exacerbation et de l'appreciation des donnees a la deliverance du bulletin est enregistre chez 11 (29,7%) patients. Le depassement arbitaire des delais de l'invalidite provisoire etait en 24 (64,8%) cas. Le depassement arbitaire des delais de l'invalidite provisoire est passé en resultat de l'appreciation erronee, du degres de l'insuffisance respiratoire et des indices de la reversibilite de l`obstruction bronchique en 19, (51,3%) cas et de la therapie antibacterienne irrationnelle en 5 (13,5%) cas. Les delais courts de l'invalidite provisoire chez les malades travaillants dans les conditions de production nocive sont montres en 2(5,4%) cas.

Ainsi, les causes essentielles des fautes de l'expertise de l'invalidite provisoire chez les malades de la maladie obstructive chronique des poumons sont la non-execution des standards d'examen, l'appreciation erronee de la gravite de l'obstruction bronchique, la sous-estimation des facteurs socials en particulier l'existance des conditions de production nocive.

Cette circonstance exige de la formation complementaire des medecins de la pratique generale d'apres les questions de l'expertise de l'invalidite provisoire.

4. ПРОИСХОЖДЕНИЕ НАЗВАНИЙ ХИМИЧЕСКИХ ЭЛЕМЕНТОВ.

Л. Шевель - ст-ка 1 к.
Руководитель - С.И. Назаркина.

Имена химическим элементам дают по нескольким принципам. Первый – по характерным свойствам:

цвету: цезий – небесно-голубой, йод – фиолетовый, иридий – радужный, рубидий – красный, родий – розовый, таллий – зелёный, сера – жёлтый.

активности: аргон – ленивый, актиний – активный.

характерным химическим реакциям: кислород – рождающий кислоты, фтор – разрушительный, водород – рождающий воду, азот – рождающий азотную кислоту, марганец - " да, действительно и проясняю, навожу блеск"

влиянию на организм: мышьяк - "глубоко в тело проникающий несчастный яд", азот – непригодный для дыхания.

по способу получения: технеций – искусственный, неон – новый, астат – неустойчивый, криптон и лантан – скрытые.

Второй признак – природный источник: литий из камня, кадмий из цинковой руды, из золы кальций и калий, молибден из свинцового блеска, сурьма – элемент из порошка для черчения бровей, кремний – «скала». В этой группе можно выделить элементы, чьи названия даны благодаря горнякам. Это, например, вольфрам – «волчья пена», кобальт – злобный гном, никель – ругательное слово горняцком языке.

Некоторые элементы названы в честь минералов, из которых они были получены - это и самарий, иттербий, иттрий, тербий, эрбий, но о них я скажу позже.

Третий принцип был выдвинут Клапроном при названии элемента №22 – титана. Имя ему было дано в честь древних мифических обитателях земли. Ученый намеренно дал такое название в противовес «именам по свойствам», предложенным Лавуазье и Номенклатурной комиссией Парижской Академии наук. По именам древних богов и героев мифов, а также по названиям небесных объектов были названы, селен и теллур, ниобий и тантал, уран и нептуний, церий и гелий.

Следующий принцип – по названию географических пунктов – был впервые использо-

ван в 1794 году, с открытием иттрия, в честь местечка Иттербю и минерала иттербита было названо целых четыре элемента. В честь России был назван Рутений, Польши – полоний, Франции – франций, америций в честь Америки, тулий в честь мифической страны Туле, рений в честь рейнской провинции, родины жены ученого, открывшего этот элемент.

В настоящее время названия новым элементам даются либо в честь великих ученых-физиков, либо географических объектов.

5. ЭТИОЛОГИЯ ЛАТИНСКИХ ТЕРМИНОВ.

О. Черкасова-ст-ка 1 к.
Руководитель- Л.И. Шпильчук

ЭТИОЛОГИЯ (от греч. истина и понятие, учение),1)раздел лингвистики ,изучающий происхождение слов; 2) любая гипотеза о происхождении того или иного конкретного слова (реже- иной языковой единицы ,например суффикса или идиоматического выражения). В этом последнем понимании различаются «ближняя этимология» - выявление затемневшихся с течением времени словообразовательных связей некоторого слова с другими словами того же языка – и «дальняя этимология» - выявление связей слова за пределами рассматриваемого языка.
Если сравнить современное значение (семантику) заимствованных терминов греколатинского происхождения со значением этих слов в классических языках-источниках, можно различить две группы заимствований.
Раскрытие этимологии часто позволяет лучше понять, почему данное слово, данный звуковой комплекс стали использоваться для обозначения определенного медицинского понятия.
Этимология помогает восстанавливать древнейшие, зачастую ошибочные, представления греков о причинах или патогенезе болезни.
Анатомия использует в своей номенклатуре некоторые названия и образы античной мифологии. Мифологические наименования могут принимать непосредственное участие в построении анатомического термина (tendo Achillis), могут, деперсонифицируясь, сами становиться терминами анатомии (atlas). Выводы. Таким образом, латинская анатомическая терминология представляет собой стройную систему названий, которая располагает рядом особенностей, отличающих ее от терминологических систем других научных дисциплин, а именно: длительный путь развития (почти 3 тысячи лет); интернациональность; наличие номенклатур; сочетание однословных и многословных наименований; применение для терминообразования только латинских и греческих слов (заимствования из других языков крайне редки); заимствование разговорных слов из латинского и греческого языков; лексико-семантическая связь с наименованиями других областей знаний (мифология, архитектура, география, музыка и др.).

6. РОМАНСКИЕ ЯЗЫКИ. ИХ ВОЗНИКНОВЕНИЕ И РАСПРОСТРАНЕНИЕ.

В. Карташова - ст-ка 1 к.
Руководитель - С.И. Назаркина

Термин «романский» восходит к латинскому прилагательному romanus, образованному от слова Roma «Рим». Первоначально это слово имело преимущественно этническое значение, однако после распространения права римского гражданства на все многоязычное население Римской империи (212 г. н.э.) приобрело политический смысл (т.к. civis romanus означало «римский гражданин»), а в эпоху распада Римской империи и образования на ее территории «варварских» государств стало общим назва-

нием всех латиноязычных народов. По мере увеличения структурных расхождений между классической нормой латыни и народными говорами романизированного населения последние получают общее название romana lingua. Впервые выражение romana lingua употребляется не как синоним lingua latina в актах Турского собора 813 г. (постановившего читать проповеди не на латыни, а на «народных» – романских и германских – языках). От прилагательного romanus в поздней латыни было образовано существительное Romnia (в греческом варианте Romana), употреблявшееся сначала в значении Imperium Romanum, а после падения империи – в значении «область с романизированным населением». К Romana восходит самоназвание Romna «Румыния», а к Romnia – Romagna «Романья» (область в Северной Италии, остававшаяся в составе Восточной Римской империи во времена господства остготов и лангобардов).

Зоны распространения романских языков:
1) "Старая Романия": Италия, Португалия, почти вся Испания, Франция, юг Бельгии, запад и юг Швейцарии, основная территория Румынии, почти вся Молдавия, отдельные вкрапления на севере Греции, юге и северо-западе Сербии;
2) "Новая Романия": часть Северной Америки (Квебек, Мексика), почти вся Центральная и Южная Америка, большая часть Антильских островов;
3) бывшие колонии, где романские языки (французский, испанский, португальский), не вытесняя местных, стали официальными: почти вся Африка, частично Южная Азия и Океания.

Современные романские языки являются продолжением и развитием народной латинской речи на территориях, вошедших в состав Римской империи. В их истории отмечаются тенденции к дифференциации (дивергенции) и интеграции (конвергенции).

Этапы развития:

III в. до н.э. — V в. н.э. - романизация (замена местных языков народно-латинским); V—IX вв. - становление романских языков в условиях распада Римской империи и образования варварских государств;

IX—XVI вв. - развитие письменности на романских языках, расширение их социальных функций, возникновение наддиалектных литературных языков;

XVI—XIX вв. - формирование национальных языков, возвышение одних и утрата своих позиций другими романскими языками;

XX—XXI вв. - возвышение испанского в ущерб французскому, движение за утверждение и расширение функций миноритарных языков.

7. ЛАТИНСКИЕ ЗАИМСТВОВАНИЯ В РУССКОМ ЯЗЫКЕ.

В. Ермоленко - ст-ка 1 к.
Руководитель- Н.А. Ткачева.

Многие слова в русском языке являются заимствованиями из древнегреческого и латинского языков. Так многие слова, которые мы привыкли считать исконно русскими, на самом деле часто оказываются сложением слов из греко-латинских образовательных элементов.

Важнейшей стороной изучения словообразовательных процессов в терминологии является анализ заимствований. При заимствовании греко-латинской терминологии генетическая близость взаимодействующих языков не влияла на интенсивность усвоения иноязычных терминов, а подкрепляла действие внешних факторов.

Российская медицинская терминология наиболее интенсивно пополнилась заимствованиями в эпоху Петра, в период, когда иностранцы широко привлекались на государственную службу.

Большинство греко-латинских заимствований в русском языке – научные. Учёные разных стран, чтобы лучше понимать друг друга называют научные термины латинскими и греческими элементами слов – это языки мёртвые (на них никто давно не разговаривает), нейтральные, всем одинаково чужие, никому не обидно. Долгое время преобладающим видом медицинских руководств на русском языке были переводы с латинского языка. Российская анатомическая терминология главным образом создавалась с ориентацией на греко-латинские номинативно-терминологические образцы и модели. Этот процесс сопровождался заимствованием слов, их структуры и значений.

Науки (-логии) занимаются такими предметами, как человек, бог, время, природа, форма, душа. О человеке – антропо-логия (пр.: питек-антроп – обезьяночеловек; миз-антроп – человеконенавистник), о Боге – тео-логия (богословие), о времени – хронология (хроника – это летопись; хроно-метр – точные часы), о деятельности живой природы – физио-логия, о форме – морфо-логия, о душе – психо-логия.

Чем больше мы будем знать ключевых элементов научных терминов, тем лучше будем ориентироваться в потоке информации, что очень важно в условиях информационной перегрузки, тем выше станет наша орфографическая зоркость, тем богаче будет наш словарный багаж, тем быстрее мы сможем овладеть современными европейскими языками.

8. ЛАТИНСКИЙ ЯЗЫК В СОВРЕМЕННОМ МИРЕ.

О. Катанюк - ст-ка 1 к.
Руководитель - Л.И. Шпильчук

Историческая роль латинского языка как международного языка науки и художественной литературы существенна. Вплоть до XII - XIII вв. латинский язык оставался единственным литературным языком, орудием художественного творчества и научной мысли, но, прежде всего - языком католической религии, составлявшей основу средневековой идеологии. Эпоха Возрождения, установив строгую классическую норму для латинского языка, существенно ограничила возможности, позволив развиваться национальным языкам и культуре. Лишь в науке, которая всегда носила интернациональный характер, он остается главенствующим, т.к. понятен всем жителям Европы. Примером тому может служить научная деятельность М.В. Ломоносова. Пользуясь, как правило, латинским языком в своих работах по химии, физики, астрономии, минералогии, Ломоносов многие из этих работ переводит на русский язык и этими переводами, создает основание русской естественнонаучной терминологии.

Вместе с тем в XIX и XX в. более быстрыми происходит вытеснение латинского языка национальными языками, а так же предпринимаемыми попытками создать искусственный язык. Однако потребность в международном языке науки не была удовлетворена, споры ученых продолжались. Особое место в нем заняла статья директора Национального института прикладных знаний, профессора Жана Капеля («Латынь или вавилонское столпотворение» («L'Education Nationale» 23.10.1952)), в которой развивал мысль, о том, что латинский язык в качестве международного языка науки соответствовал бы потребностям общения во всех областях науки. Статья вызвала сочувственные отклики, и содействовала организации 1-го Международного конгресса живой латыни, который был проведён во французском университете Эс-ан-Прованс 3 - 6 сентября 1956 г., собрав свыше 200 делегатов из 22 стран. На конференции были намечены пути обогащения латинской лексики в соответствии с требованиями современной науки.

Прямым продолжением 1-го Международного конгресса живой латыни были конгрессы, состоявшиеся в 1959, 1963, 1969 и 1975 гг. (Лион, Страсбург, Авиньон, По).

Практика применения латинского характеризует динамику движения за живую латынь. Основной показатель здесь - наличие журналов, публикующих научные статьи на латинской языке (голландский филологический журнал «Mnemosyne», журналы, специально посвященные живой латыни: «Latinitas» (Ватикан), «Palaestra Latina»). Однако при решении вопроса о выборе языка, официально принимаемого как международный язык науки, необходимо учитывать и следующие соображения, определяющие особое место латинского языка в культуре нашего времени: 1.Хотя латинский язык утратил то значение международного языка ученых любой специальности, в ряде научных областей его позиции остаются незыблемыми и в настоящее время. Латинская и латинизированная греческая лексика служит основным источником пополнения непрерывно и прогрессивно возрастающей терминологии во всех областях науки и техники. 2. Латинский язык - это основной язык европейской культуры от античности до нового времени, и без него невозможно самостоятельное постижение важнейших фактов этой культуры по первоисточникам, а, следовательно, и никакое подлинно историческое образование. 3. Латинский язык при надлежащей постановке его преподавания в системе средней и высшей школы явился бы одним из средств повышения уровня филологического образования, что само по себе очень важно. Обзор основных моментов истории латинского языка как международного языка научной и художественной культуры позволяет сделать вывод о его способности жить и развиваться в этой функции в соответствии с потребностями нашего времени.

9. МЕДИЦИНСКАЯ СИМВОЛИКА.

А. Дружин - ст-т 1 к.
Руководитель - С.И. Назаркина.

Наиболее распространенный символ медицины — чаша со змеей. История его возникновения уходит в тысячелетнюю историю древних цивилизаций Востока, Египта и Греции, Нового света. Змея — традиционный символ мудрости, могущества, вечной юности: ежегодная смена кожи символизировала омоложение. Возник у греков. Именно змея навела Асклепия на мысль о возможности воскрешать мертвых. В античном мире змея играла роль хранительницы домашнего очага. Однако в истории медицины с образом змей и червей часто связывали не только жизнь и здоровье, но также болезни и смерть.

Возникновение чаши как медицинского символа связывают с восприятием пресной воды, льющейся с неба в засушливых и пустынных странах Древнего Востока. Поймать и сохранить драгоценную влагу, можно было руками, сложенными вместе в виде чаши. Когда лечение водой было связано с религиозными ритуалами, кубки для нее украшались надписями-заклинаниями или изречениями из священных текстов. Иногда происхождение чаши со змеей как медицинского символа связывают с историей ядов и противоядий. Лекарства часто имели сложный состав и включали в себя змеиный яд, который хранили в специальных чашах. Однако в истории медицины разных стран чаще эмблемой врачевания считалась змея, которая обвивается вокруг посоха.

Посох Асклепия, вокруг которого обвивается змея, обычно изображался в виде необработанной деревянной палки с сучьями. Он символизирует связь с землей и дорожный посох, означающий долгие странствия врача. Иногда в качестве символа медицины использовали жезл Гермеса. Гермес получил от Аполлона волшебный жезл.

Пентаграмма — пятиконечная звезда, вычерченная одной линией, использовалась как талисман против духов, вызывающих болезни и несчастья. Пентаграмма — не единственная геометрическая фигура, которой приписывали магическое действие в

искусстве врачевания. К глубокой древности восходят представления об исцеляющих свойствах магического квадрата и магического круга.

Сова и петух, ворон и собака, все они в разные времена изображались рядом с Асклепием. Ворон, как и сова, считался символом мудрости. На античных монетах и медальонах Асклепий часто изображен с лекарственными растениями — маком, виноградом, пальмой, кипарисом. В эпоху Ренессанса в качестве эмблемы медицины широкое распространение получило изображение ландыша.

Особое место среди них занимают горящий факел и пламенеющая свеча. Огонь, дающий тепло, благодатный покровитель жизни, стал символом духовной сущности врачебной деятельности. Сжигание свечей во время церковных обрядов символизировало смерть Христа, искупающего грехи людей. Часто горящие свечи украшали портреты известных врачей. В эпоху Возрождения становится популярным еще один символ медицины: изображение змеи, которая обвивается вокруг зеркала. Символизирует необходимость ясновидения, способности «видеть все как в зеркале» для овладения искусством врачевания.

Красный крест, изначально созданный для обозначения санитарных служб вооруженных сил и обеспечения защиты больных и раненых, со временем превратился в символ беспристрастной помощи, предоставляемой всем, кто страдает.
Эмблема красного креста не несёт в себе религиозного и политического смысла и не является символом медицины.

10. РИМСКИЙ КАЛЕНДАРЬ.

М. Вершкова - ст-ка 1 к.
Руководитель - С.И. Назаркина

Когда зародился римский календарь неизвестно. В VIII столетии до н.э. у римлян был календарь, содержащий в году 10 пронумерованных месяцев без названий. Год начинался с весны. Во время Ромула, легендарного основателя Рима, некоторые месяцы получили своё название. Первый месяц был назван Мартиусом, в честь бога войны Марса. Следующий месяц Априлис (лат. aperio – открывать, раскрываться), назван так, потому что в апреле раскрываются на деревьях почки. Третий месяц, Май, был посвящен богине Майе, четвертый – богине Юноле. Последние шесть месяцев продолжали называться своим порядковыми номерами. Четыре месяца имели по 31 дню и шесть месяцев – по 30. Продолжительность года составляла 304 дня.

В XVII веке до н.э. император Нума Помпили произвел реформу календаря, прибавил ещё два дополнительных месяца, которые были названы январем и февралем. Месяц январь получил своё название в честь двуликого бога Януса, у которого одно лицо было обращено вперед, а другое назад. Это значит, что этот бог мог видеть прошлое и предвидеть будущее. Двуликий Янус считался богом времени, он по совместительству контролировал все входы и выходы, начиная от городских ворот и до дверей дома, и изображался с ключом в руке. Слово февраль (лат. februarius – очищение) связано с обрядами очищения.

Новый римский календарь был весьма хаотичным, четыре его месяца содержали по 31 дню, семь месяцев – по 29 дней и один месяц, февраль, имел 28 дней. Всего в году было 355 дней.

Продолжительность римского года отличалась от тропического года более чем на 10 дней и поэтому через каждые два года между 24 и 25 февраля вставляли дополнительный месяц, который содержал либо 22 либо 23 дня. Продолжительность годов чередовалась от 355 до 377 и 378 дней, продолжительность дополнительного месяца устанавливали только жрецы, они довели календарь до хаотического состояния. По-

явилась необходимость в реформе календаря, что и сделал Юлий Цезарь в 46 году до н.э., по совету египетского астронома Созигена. Он провёл коренную реформу календаря по образцу принятому в Египте. Устанавливался четырёхгодичный солнечный цикл (365 + 365 + 365 + 366 = 1461 день) с неравной продолжительностью месяцев. 30 дней в апреле, июне, сентябре и ноябре, 31 день — в январе, марте, мае, июле, августе, октябре и декабре, в феврале — 28 дней в течение трёх лет и 29 дней для четвёртого года. Начало года Цезарь перенёс на 1 января, т. к. с этого дня консулы вступали в должность, начинался римский хозяйственный год. Обозначение римлянами чисел месяца основывалось на выделении в нём трёх главных дней, связанных первоначально со сменой фаз луны.

11. КРАСОТА В ДРЕВНЕМ РИМЕ И ГРЕЦИИ.

М. Иванова - ст-ка 1 к.
Руководитель - Н.А. Субачева

Великая цивилизация древнего Рима.
Достижениями Римской империи мы пользуемся до сих пор, начиная от высоких материй – римское право, литература, философия, архитектура; и кончая низменным бытом – ведь в Риме были водопровод и канализация за 2000 лет до их появления в Европе.
Римляне – поклонники красоты.
В секретах красоты преуспели как мужчины, так и женщины. После купания они баловали себя массажем, чтобы сохранить стройную фигуру, сильные мышцы и эластичную кожу. Особенно ценились ароматические вещества для тела.
Каноны красоты Древнего Рима.
Они существенно отличались от греческих (хотя Греция служила для Рима неиссякаемым источником вдохновения). Например, гетерам в Риме краситься запрещали категорически, а богатые и знатные женщины порой злоупотребляли косметикой.
Истинной (в смысле божественной) красотой считалась белокожая златокудрая женщина. Для получения этих качеств использовали большое разнообразие косметических средств.
Поэты и врачи Древнего Рима о красоте.
Рецепты некоторых косметических средств были найдены в книге Плиния Старшего «Естественная история». Знаменитый римский врач Гален – автор первого систематизированного учебника по косметике.
Что касается поэтов, искусственная красота была у них не в почете. Об этом можно прочитать в строках Марциала.

12. СПОРТ В ДРЕВНЕМ РИМЕ И ГРЕЦИИ.

А. Засухина - ст-ка 1 к.
Руководитель - Н.А. Субачева

С древних времен олимпийские игры были главным спортивным событием всех времен и народов. В дни проведения олимпиады воцарялось согласие и примирение. Войны прекращались и все сильные, и достойные люди соревновались в честной борьбе за звание лучшего.
За много веков олимпийское движение преодолело много препятствий, забвение и отчуждение. Но несмотря ни на что олимпийские игры живы и по сей день. Конечно это уже не те соревнования, в которых принимали участие обнаженные юноши и побе-

дитель которых, въезжал в город через пролом в стене. В наши дни олимпиады одно из крупнейших событий в мире. Игры оснащены по последнему слову техники – за результатами следят компьютеры и телекамеры, врем определяется с точностью до тысячных долей секунды, спортсмены и их результаты во многом зависят от технического оснащения.
Благодаря СМИ не осталось ни одного человека в цивилизованном мире, который не знал бы, что такое олимпиада или не видел бы соревнования по телевизору.
Но мы хотим подробнее остановится на Древних Олимпийских играх и их истории и показать, как это было важно для людей, живущих в Древней Греции, не только с точки зрения спортивного зрелища, но с социальной позиции.

13. ЛАТЫНЬ НАУКИ И ФИЛОСОФИИ.

В. Коваленок 1 к.
Руководитель - Л.И. Шпильчук

Латинский язык принадлежит к италийской ветви группы индоевропейских языков.
Слово «латинский» происходит от Latium— названия области, расположенной в средней части Апеннинского полуострова вдоль побережья Тирренского моря и занимающей около 2000 кв. км.
Одна из дисциплин, имеющих большое значение при подготовке специалистов в области медицины и фармации, несомненно, является латинский язык.
В своём историческом развитии прошёл несколько периодов.
Латинский язык имеет и большое общеобразовательное значение, так как помогает лучше и глубже анализировать русский язык, в который перешли многие латинские корни, создав ряд новых слов.
В латинский язык вошло много греческих слов, которые сохранились до сих пор, главным образом в медицинских названиях — анатомических, терапевтических, фармакологических и др.
Более полутора тысяч лет латинский язык был языком культуры и письменности, единственным языком науки и философии в Западной Европе.
В России латинский язык долгое время был языком науки.
При изучении латинского языка основное внимание следует уделять его грамматике и тому словарному составу языка (лексике), который связан со спецификой данной специальности.
Романские языки, возникающие на основе латинского языка: итальянский, испанский, португальский, каталанский, провансальский, французский, румынский, молдавский и др.
Эпохой гармонического симбиоза латинского языка как международного и национальных языков как его равноценных и равноправных преемников в пределах научной работы в каждой отдельной стране был XVIII век.
Грамматические категории.
Произношение латинского языка.
Латинский и греческий языки и принято называть «мертвыми», однако для медицинских работников это живые языки, необходимые для повседневной работы.

Международное сотрудничество студентов АГМА в 2008г.

В 2008г. студенты АГМА активно участвовали в международном сотрудничестве со своими коллегами из Японии и Китая. В самом конце 2007г., а именно 17 декабря, во время проведения 17-ой студенческой научной конференции на иностранных языках посредством Интернета был организован прямой телемост с Японией, благодаря чему в нашей конференции выступили представители побратимского японского вуза - медицинского университета г.Осака. С приветственным словом к участникам конференции обратились доцент кафедры гигиены д-р Еми Ямадори и проф. Е.А.Бородин. От японской стороны были представлены 2 доклада – «Различные клубы для студентов в Японии» (авторы студенты 4 курса Hitomi K, Tadayuki H.,Yu N.). и «Проблема старения населения Японии» (автор Wei Sun – 3-th year postgraduate student from China).

В июне 2008г. студент 6 к. А.Горин (староста биохимического кружка) представил на международный научный симпозиум «Давайте лучше узнаем систему медицинского образования и жизнь студентов в разных странах», проходивший в Японии видео-фильм «Жизнь и учеба студентов в АГМА». В работе симпозиума участвовали представители Японии, Китая . США, Ирана и России.

С 18 июля по 1 августа в России пребывали доцент и 5 студентов медицинского университета г. Осака (доцент кафедры челюстно-лицевой хирургии доктор Ясунори Арио-ши; студенты 5 курса - Ишикава Мидори, Ю Ито, Такихиде Яегаки, Хироюки Ниши, Атсуши Якота. Для членов японской делегации были организованы летние курсы по освоению практических навыков в хирургии, терапии и акушерстве. С ними занимались доцент Л.А.Волков, проф. С.В. Нарышкина и проф. Т.С. Быстрицкая.

В настоящем сборнике мы публикуем статью д-ра Ариоши с впечатлениями от поездки в Россию, Благовещенска, АГМА, организованных курсов, преподавателей и студентов нашей академии.

С 11 по 15 сентября 2008г. большая делегация студентов АГМА посетила г. Харбин и участвовала в работе 5-го Китайского-Российского форума биомедицинских и фармацевтических наук, проводимого Харбинским университетом традиционной китайской медицины. Наши студенты выступали с докладами на молодежной секции, представили номера художественной самодеятельности и вышли победителями в соревновании по волейболу.

В проведенной 15 декабря 2008г. 18-й студенческой научной конференции на иностранных языках с международным участием были представлены 3 доклада от студентов медицинского университета г. Осака., приезжавших к нам в летнее время.

Международное сотрудничество студентов АГМ в наступающем 2009 г. получит дальнейшее развитие.

ОГЛАВЛЕНИЕ

Section of the English Language

DEUTSCHE ABTEILUNG

SECTION du FRANCAIS et du LATIN

Для заметок

Для заметок