ABSTRACTS

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Conference Abstracts

A-1

Morphology of intramural lymph vessels of the human heart

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Abstract: The structure of intraorgan system of the lymphatic collectors of the heart, their size, structure and distribution in different parts of the wall of lymphangions are described. Generation and interposition of muscle fibers in the structure of the common vessel are shown. Visual description of the interaction of different structures of the lymphatic system for lymph passage, from subendocardial lymph capillaries to the main outflow vessels are described.

Key words: lymphangions, lymphatic vessel, collector, caliber, form.

A-2

Aorto-right ventricular tunnel originating from left coronary sinus: a case report

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Abstract
This report describes an extremely rare case of an aorto-right ventricular tunnel originating from the left coronary sinus with abnormality of left coronary artery in the 11-year-old child.
Key words: Aorto-right ventricular tunnel, coronary sinus

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A-3

Concentration of anti-Mullerian hormone in the blood as a result of electrical stimulation of polycystic ovaries in women with infertility

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Abstract
This paper presents data on the effect of unilateral and bilateral electrical stimulation of the ovaries in 36 women of reproductive age with polycystic ovary syndrome and infertility on follicular reserve, estimated by the concentration of anti-Mullerian hormone in the blood serum. The results of surgical treatment showed that in the postoperative period in women, both with unilateral and bilateral ovarian cauterization, it does not lead to a critical decrease in the follicular reserve compared with indicators of healthy women.

Key words: women, polycystic ovary syndrome, follicular reserve, electrical stimulation, anti-Mullerian hormone.

A-4

Dissection of ascending aorta and left main coronary artery after routine percutaneous coronary intervention: a case report

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Abstract

We describe a case of guiding catheter induced dissection of left main coronary artery and ascending aorta. A patient with unstable angina and two-vessel disease underwent drug eluting stents implantation in proximal left anterior descending artery and distal left circumflex artery. Six hours after the procedure of acute occlusive dissection of left main coronary artery with spreading to ascending aorta developed, it was required to do stenting of the left anterior descending and left main coronary arteries and balloon dilatation of left circumflex artery. Despite the initial success of the repeated intervention, total occlusion of left main coronary artery occurred with unsuccessful reopening in catheterization laboratory. Emergency coronary artery bypass surgery was carried out. However, despite the patent anastomosis from left mammary to left anterior descending artery, the patient died.

A-5

Endovascular treatment of chronic lower limb ischemia - the first experience of consecutive patients in the Kyrgyz Republic

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Abstract

Objective: Pure atherosclerosis and diabetes mellitus are often responsible for the lesion of lower limb arteries. As a result, critical ischemia may develop. Endovascular treatment of lower extremities chronic ischemia in the modern world one of the most effective methods of limbs salvage. This report is an analysis of the first experience of endovascular treatment in consecutive patients with chronic lower limb ischemia in the Kyrgyz Republic.

Methods: In 2016-2018, there were 31 patients with chronic lower limb ischemia in IIb-IV Fontaine's stages who underwent endovascular treatment. The primary endpoint was 6-month painlessness or reduction of the Fontaine stage; freedom from amputation up to six months; active regenerative process or full recovery of ulcers/wounds up to six months. The secondary endpoints included 6-month all-cause mortality and reintervention rate.

Results: Overall, 27 (87.1%) patients reached painless form (stage I according to Fontaine (ABI ≥0.9)), with complete regeneration or active reparative process observed in 20 (64. 5%) patients. In general, major amputation was avoided in 29 (93.5%) patients (two patients underwent amputation by E. Burgess). Minor amputations were performed below the level of foot dorsum (Sharp) in 35.5% (11 patients). Simultaneous percutaneous coronary interventions and peripheral interventions were performed in 6 (19. 4%) cases. In total, within 6 months one death was registered (3.2%).

Conclusion: The first endovascular treatment of consecutive patients showed encouraging 6-month results. Simultaneous («Ad-hoc») or stepwise (at the current hospitalization) procedures on coronary and peripheral arteries ensure safety and can provide more chances of patient`s survival.

Key words: chronic lower limb ischemia, critical limb ischemia, percutaneous coronary interventions, limb salvage, freedom from amputation.

A-6

Immediate clinical and angiographic outcomes after delayed percutaneous coronary interventions in patients with acute coronary syndrome

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Abstract

Objective: Coronary artery disease (CAD) remains the leading cause of premature death. Clinical management of patients with such disorders as acute coronary syndrome (ACS) is still one of the most important and debated issues in modern medicine. Some patients fail to come on the most relevant and recommended time for percutaneous coronary interventions (PCI) to receive an effective treatment. This study analyzed the results of the practical approach to the “compelled” delayed percutaneous coronary interventions (DPCI) in patients with acute coronary syndrome.

Methods: The study was performed retrospectively. From 2013 to 2016, there were 141 patients with CAD. The DPCI group with an average admission time when symptoms onset counts 89.4±17.5 hours was compared with the groups with medical therapy only (MT) and PCI after stabilization (PPCI).

Results: The revascularization Index in DPCI was 0.90±0.18 and in PPCI made 0.89±0.2 ($p>0.05$). The percentage of ST segment recovery in the DPCI was 72.8% in patients with elevation, and 87% with ST segment depression. At the same time in comparison with the medical therapy group, a significant difference was found according to this criterion (45.2% and 67.2%, respectively) ($p<0.05$). There were marked changes in DPCI in the data of the

echocardiogram due to the reduction in the size of the left ventricle after delayed PCI. The main role in increasing the ejection fraction in DPCI group was the contraction of the left ventricle cavity during the end of systolic phase. In DPCI group 39 convalescents (92.9%) reached condition stabilization. All-cause mortality during hospitalization in the DPCI was noted for 3 patients (7.1%) and 9 patients (18%) in the MT ($p<0.05$). The PPCI group had no lethal cases.
Conclusion: Delayed PCI in patients with ACS is safe and effective procedure. The use of delayed PCI in combination with optimal drug therapy is the most appropriate non-surgical method of myocardial revascularization in the studied cohort of patients. Delayed PCI results showed greater efficacy in the dynamics of the clinical and functional patient's status compared to PCI performed after ACS stabilization.

Key words: delayed percutaneous coronary interventions, acute coronary syndrome, coronary artery disease.

A-7

Individual-typological features of regulation of cardiorhythm in foreign students during education process

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Abstract
Objective: In studies of the mechanisms of human adaptation to professional and educational activities, as well as in clinical practice, the method of mathematical analysis of heart rate variability (HRV) is widely used. Based on this, the aim of this paper is to determine the typology and characteristics of the vegetative regulation of the heart as a prenosological control of the functional state of the body of practically healthy foreign students.
Methods: In 2018, 389 male students from India and Pakistan**,** which are studying at the International higher school of medicine (ISM) aged 17-24, served as test subjects. For each student, the main HRV parameters were recorded in a sitting position for 5 minutes by means of "PSYCHOPHYSIOLOGIST" software and hardware company Medicom MTD (Russia).
Results: In total, 52% of young men had type I (with a moderate predominance of central regulation), 5% - type II (with a pronounced predominance of central regulation), 36% - type III (with a moderate predominance of autonomous regulation), and 7% - type IV (with a pronounced predominance of autonomous regulation). Students with a predominance of central regulation (types I and II) compared with types III and IV (predominance of autonomous regulation) have an excess of sympathetic influences on the heart, as indicated by reliably low values of the SDNN, Mo, TP and high level of SI, which leads to various dysfunctional disorders, especially with severe centralization. In the group of persons with type III, a balance is maintained between the tone of the sympathetic and parasympathetic nervous system, while type IV shows a significant prevalence of parasympathetic effects on the heart rhythm.
Conclusion: The results indicate a risk of developing disadaptation in the students' body during education process and the importance of systematic monitoring to detect early cardiac arrhythmias.
Key words: foreign students, heart rate variability, statistical and spectral characteristics, stress index, vegetative regulation.

A-8

Stent grafts implantation in patients with life-threatening aortic conditions – first experience in Kyrgyz Republic

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Abstract

Objective: Aortic diseases remain an acute and debatable problem. Among all the aortic pathologies, the most dangerous are dynamic aneurysmal expansion, traumatic dissections and / or aneurysms, pure aortic intima dissections. Contemporary and less invasive treatment method is the stent graft implantation into aorta.
This report describes the first experience of thoracic endovascular aortic repair (TEVAR) and endovascular aneurysm repair (EVAR) in the Kyrgyz Republic in consecutive patients with life-threatening aortic conditions.
Methods: Nine patients, who underwent TEVAR and EVAR, were presented after all clinical examinations, echocardiography and computed tomography angiography with various life-threatening aortic diseases. Among the pathologies there were 2 (22.2%) dissections only, traumatic aneurysm 1 (11.1%), aneurysm without dissection 1 (11.1%), aneurysm with intimal dissection 5 (55.6%). Seven patients with dissection had type B (The Stanford classification).
Results: TEVAR was performed in eight cases EVAR just in one. All patients reached the 6-month endpoint. None of the following, such as aneurysm expansion, aneurysm thrombosis or a functioning of false lumen at the sites of the stent graft implantation have been recorded. In addition, no further progression of the false lumen below the implantation zones was visualized. Mean diameter of stent grafts was 31.4 ± 4.8 mm and 188.9 ± 34.6 mm in length.
Conclusion: This modest observation showed the effectiveness of stent grafts implantation procedures in various aortic life-threatening conditions, such as aneurysm and / or aortic intima dissection.
Key words: thoracic endovascular aortic repair (TEVAR), endovascular aneurism repair (EVAR), life-threatening aortic conditions, aortic aneurysm, aortic dissection, stent graft.

A-9

Circadian biorhythms of indicators of the cardio-respiratory system in children with bronchial asthma

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Abstract

The paper presents the results of variability of indicators of the cardio-respiratory system in 24 children with bronchial asthma. Circadian recurrence of changes in bronchial obstruction, lung capacity, heart rate, beat and per-minute volume indicators have been established, which are necessary for the individualization of pharmacotherapy of bronchial asthma.
Key words: children, bronchial asthma, daily biorhythms, indicators of the cardio-respiratory system

A-10

Results of controlled clinical examination of intraoperative reinfusion of blood, taken from pleural cavity in the slow and fast conditions

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Abstract: The controlled clinical examination showed that the decay of erythrocytes and leucocytes under blood reinfusion in experimental control (EC) after intraoperative blood reinfusion (IO RIC) is 35% in slow blood reinfusion, and 48% in fast blood reinfusion. Osmotic resistance is decreased by 3 times. In fast technical exfusion the blood-hemolysis is more than 28%, what needs to be taken into account in carrying out technical IO RIC. According to CCI results, the faster the technical exfusion is done, the more significant is decrease of protein and bilirubin; besides, in both EC and clinical control. There is a higher concentration of K+, residual nitrogen and urea in blood collected during fast technical exfusion. According to CCI results, the number of thrombocytes is reliably decreased, especially due to the fast blood exfusion. The process of aggregation in these conditions is reliably slowing down; besides, in the fast blood exfusion mode it slows down twice in contrast to the controlled one. The period of plasma recalcification is surely decreased to 40% due to the high-speed mode of blood exfusion in comparison to the controlled indexes, which is 3 times higher than in the application of the slow blood aspiration.

Key words: controlled clinical examinations, technical intraoperative reinfusion of blood, pleural cavity

A-11

Intrauterine balloon tamponade in the management of postpartum hemorrhage

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Abstract

Objective: According to WHO, the maternal mortality ratio in Kyrgyz Republic is 76 cases per 100.000 live births and is the highest among the Central Asian and Eastern European countries. It is necessary to study and implement minimally invasive postpartum hemorrhage treatment methods to prevent massive obstetric hemorrhage.

Methods: A prospective study of 35 cases of the use of intrauterine balloon tamponade (UBT) for the treatment of hypotonic postpartum hemorrhage was conducted. The indicators were assessed to evaluate the effectiveness of UBT.

Results: Hemostatic effect after UBT was achieved in 30 cases (85.7%), the average total blood loss was 664.57 ± 117.83 ml; reduced need for blood products, high doses of prostaglandins, large volume of fluid maintenance was observed. Breastfeeding started within the first 30 – 60 minutes after birth in 88.6% of cases.

Conclusion: UBT fully complies with the strategy for preservation of the reproductive potential in women, allows to improve medical and economic indicators.

Key words: Uterine balloon tamponade, hypotonic postpartum hemorrhage

A-12

Possibilities of endobiliary stenting with complex choledocholithiasis

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Abstract

Objective: To increase the effectiveness and safety of endosurgical treatment of choledocholithiasis.
Methods: The set goal is achieved by studying the causes of unsatisfactory results of lithoextractions, improving its tactics and technology. Patients with known predictors of the futility of lithoextraction were excluded from the study. Based on the study of other causes of inefficiency namely strangulation of calculi with a basket, progression of obstructive jaundice, the addition of purulent cholangitis or postpapillotomy bleeding some new tactical rules and endosurgical techniques were formulated. Their effectiveness was tested in group of patients.
Results: When comparing the research and control groups, a decrease in the frequency of endosurgical treatment of choledocholithiasis was revealed.
Conclusion: The effectiveness of the proposed tactical principles and technological techniques has been proved.
Key words: endoscopic papillosphinctertomy, endoscopic lithoextraction, obstructive jaundice, purulent cholangitis, postpapillotomy bleeding.