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EVENTS OF THE CENTER

RESULTS OF THE PREGNANCY, ACCOMPANYING WITH THE DISEASES OF THE GASTROINTESTINAL SYSTEM

МРНТИ 76.29.34

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Abstract

The special weight of gastroesophageal diseases continuously spread among the young pregnant women during last decades. Spontaneous miscarriage of 2 pregnant women (33%) stated in I trimester of the pregnancy, spontaneous miscarriage of 3 pregnant women (50%) in II trimester of the pregnancy, spontaneous miscarriage of one pregnant women (17%) in I trimester of the pregnancy.

Low weight is stated in 8 patients (17%) from 48 infants, atresy of the rectum is stated in one patient (2%). So, 15 pregnant women (28%), suffering from esophageal diseases, have fetus with abnormal growth.

32 patients, passing the treatment at gastroenterologist after the birth, appealed to clinic with recurrent pregnancy. The spontaneous miscarriage is stated in 3 patients (9%). Delay of the spinal column is stated under USI examination at the end of II trimester of the pregnancy of one patient and regarding with it, the pregnancy was stopped with artificial birth.

Abnormal growth of the fetus is stated only in 4 patients (12.5%) from 32 pregnant women.

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Keywords
pregnancy,
gastrointestinal system

Асқазан-ішек жүйесі ауруларымен қосарланған жүктілік нәтижелері

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Аңдатпа

Соңғы он жылдар ішінде гастроэзофагеалдық аурулардың жалпы салмағы жас жүкті әйелдердің арасында үздіксіз таралуда. Жүктіліктің I-ші триместрінде әйгілі болған жағдайда, 2 жүкті әйелде (33%) сыртқы әсерсіз бала түсігі, жүктіліктің II-ші триместрінде әйгілі болған жағдайда, 3 жүкті әйелде (50%) сыртқы әсерсіз бала түсігі, бір жүкті әйелдің (17%) сыртқы әсерсіз бала түсігі орын алған.

Төменгі салмақ 8 пациентте (17%) 48 нәресте де, бір пациенттің тікішегінде атрезия (2%) көрсетілген. Сонымен, өңеш ауруларына шалдыққан 15 жүкті әйелдің (28%) құрсағындағы нәрестесінің ақаулықпен өсуі байқалады.

Босанғаннан кейін гастроэнтеролог-маманның емін алған 32 пациент мерзімдік жүктілігімен клиникаға жүгінген. Сыртқы әсерсіз бала түсігі 3 пациентте (9%) кездеседі. Бір пациенттің жүктілігі барысында II триместрінің соңында USI зерттеуінде омыртқасының дамуы тоқтап қалуы жасанды бала туылуымен тоқтатылған. 32 жүкті әйелдің құрсағындағы ұрықтың ауытқу түрде өсуі 4 пациентте байқалған.

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жүктілік, асқазан-ішек жолдары.

Результаты беременности, сопровождающиеся заболеваниями желудочно-кишечной системы

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Аннотация

Особый вес гастроэзофагеальных заболеваний в течение последних десятилетий непрерывно распространялся среди молодых беременных женщин. Спонтанный выкидыш у 2 беременных женщин (33%), заявленных в I триместре беременности, спонтанный выкидыш у 3 беременных женщин (50%) во II триместре беременности, спонтанный выкидыш одной беременной женщины (17%) в I триместре беременности беременность.

Низкий вес отмечается у 8 пациентов (17%) у 48 младенцев, у одного пациента указывается атрезия прямой кишки (2%). Таким образом, у 15 беременных женщин (28%), страдающих заболеваниями пищевода, есть плод с аномальным ростом.

32 пациента, прошедшие лечение у гастроэнтеролога после рождения, обратились в клинику с периодической беременностью. Спонтанный выкидыш заявляется у 3 пациентов (9%). Задержка позвоночника указана в исследовании USI в конце II триместра беременности одного пациента и относительно этого, беременность была остановлена искусственным рождением.

Аномальный рост плода отмечался только у 4 пациентов (12,5%) от 32 беременных женщин.

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Ключевые слова
беременность, желудочно-кишечный тракт

Background

One of the important problems, stand in front of obstetrics and gynecology, is to provide the healthy birth of the fetus, properly regulating the flow of the pregnancy. So, contamination of the atmosphere, non-satisfactory social factors, harmful addictions, various genital and extragenital diseases make serious obstacles for prenatal growth of the fetus [1,2,3,4]. Since the percentage of the fetus with congenital diseases, as well as, non-completed pregnancies continuously go up year by year [5,6,7,8].

One of the factors, making obstacle for prenatal growth of the fetus, is gastrointestinal diseases, including to the group of extragenital diseases [9,10,11]. The percentage of the pregnant women, suffering from gastrointestinal diseases, increases for the last years [12]. The cause is the wide spread of gastrointestinal disease among youth. Although wide spread of gastrointestinal disease among pregnant women, their treatment is not under necessary attention.

Considering above stated, we deem reasonable to analyze the results of the pregnancy of the patients, suffering from gastrointestinal diseases.

The trials are conducted on 396 pregnant women, suffering from extragenital disease, 54 patients (14%) suffer from gastrointestinal disease. Chronic constipation is stated on 20 patients (41%). In case of absence of defecation after 24 hours, this is the pathology, we accepted caprostasis the cases when defecation delays more than 24 hours.

Since instrumental examination of the gastrointestinal disease makes danger for the pregnancy, we could not complete the research of the etiologic factors of the constipation in patients under our control. Regarding with it, we tried to ease the condition of the pregnancy, using medicines, not harmful for the growth of the fetus, and other means of treatment, we did not use medicines against etiologic factor while the pregnancy.

We got the following results while separating the pregnancy on trimesters on 22 pregnant women, complaining from constipation.

The constipation is stated on 1st trimester of the pregnancy on 6 patients (54,5%), 2nd and 3rd trimester on 12 patients (27%), the percentage of the patients, suffering from constipation, among the pregnant women, does not increase and remain stable, starting from 1st week of 3rd trimester at the expense of change of medicine against constipation at the end of 2nd trimester. The constipation shows equality while the pregnancy of our patients (figure 1).

Irritation syndrome of the intestines is stated on 13 patients (24%) under our survey.

Although rapid spread of the gastrointestinal diseases and irritation syndrome of the intestines at the result of the increase of stress factors and speedily change of life temp during last 10 years, these diseases are rarely stated on the pregnant women. Nevertheless, these diseases seriously reduce their life quality and made appeal to the doctor frequently (13).

Material and methods

Basing on the anamnesis, collected from the pregnant women, we came to the conclusion that the main etiologic cause is the stress in the patients under our survey.

Since the signs of the patient are not significant in first weeks of the pregnancy, irritation

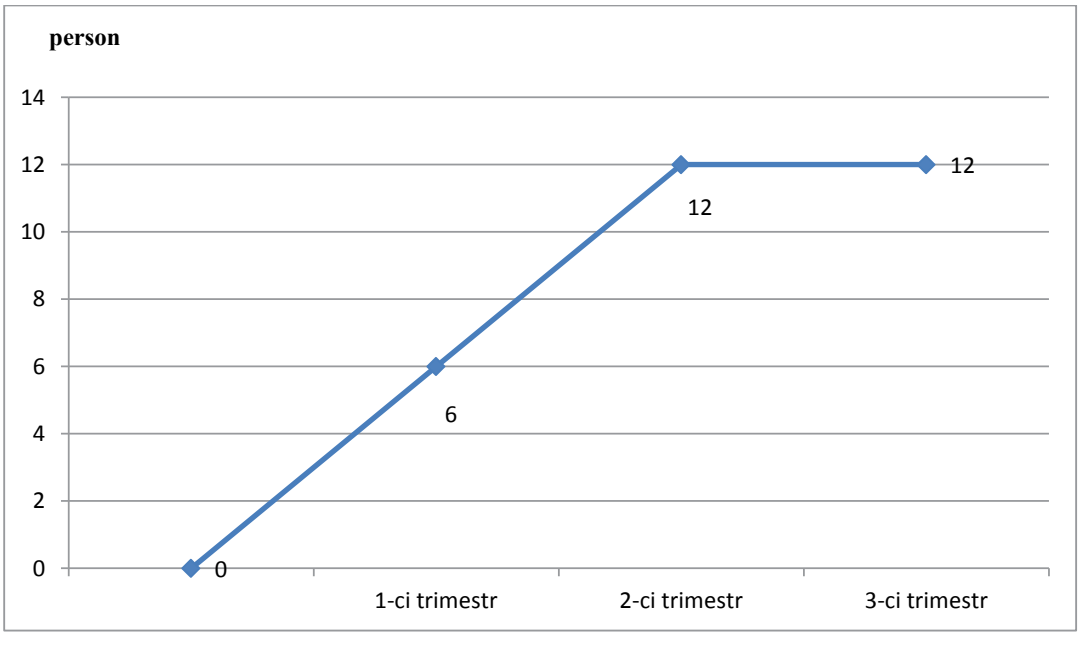

Figure 1. Growth of the constipation, depending on the term of the pregnancy

syndrome of the intestines is not stated on 13 patients up to the pregnancy. However, when we examine the anamnesis, we state definite signs of irritation syndrome of the intestines in each of them. The patients did not appeal to the doctor regarding with the moderate flow of the disease. However, starting from 2nd week of the pregnancy, 4 patients (31%) complaint about acute pains, continuing for a short period in the form of attack, in posterior part of the stomach. These types of the pains are stated in 7 patients (54%) in fourth week of the pregnancy. These symptoms are already stated in 100% of these patients in 7th week of the pregnancy. Meteorism is stated in 6 patients (46%), beside the pains, the noisy sounds of the intestines on the background of the meteorism is stated on 7 patients (54%). The defecation act became dysfunctional on 100% of the pregnant women. Diarrhea is stated on 4 patients (15%), constipation is stated on 9 patients (85%). Astenic, ipochondric, depression syndrome is not stated on our patients. Gastroenterologist examined all pregnant women, the condition of the pregnant women improved according to their recommendation about general fastening measures of the body, relevant changes of the nutrition. In case of necessity, spasmolytic medicine is used against diarrhea, medicines, improving dysbiosis of the intestine is used as well. The effect of the each prescribed medicine to the growth of the fetus made clear.

Results and discussion

Reflux esophagitis diagnosis is determined on 9 patients (17%) under our survey. Since the syndrome, arising at the result of irritation of mucosal membrane of the esophagus with the effect of stomach acid, covers all age groups, this syndrome widely spread among the pregnant women as well (9). However, majority of the obstetricians-gynecologist did not pay attention to this problem, they are satisfied with the correction of the nutrition regime of the pregnant women. The main cause is the start of the stomach fermentation, which is the main symptom of gastroesopahigitis reflux syndrome (GRS), and its removal after the birth. Therefore, obstetricians-gynecologists consider the problem, which is not harmful for the pregnancy and accompanying gastroesopahigitis reflux syndrome.

However, this mistaken idea is supported with the articles, published in the literature of the last years. T.B. Elokhin and B.E. Tyumyunnic (9) declared on the basis of their survey that since gastroesopahigitis reflux syndrome is the disease, accompanying the pregnancy, it causes the peculiar problems in the flow of the pregnancy.

All of 9 patients under our survey complaint about stomach fermentation, acid belching and dysfagia. Sense of aching, starting from stomach, is similar to stenocardia attacks, irradiating to the back side of the thorax, these complaints are stated in 3 patients (33,3%). However, despite of stenocardia pains, these pains continue for long period and sense of aching became moderate after abundant intake of water. Stomach fermentation is stated on 9 patients in I trimester of pregnancy, they reduce to 5 patients in II trimester, 3 patients in III trimester (figure 2). So, the stomach fermentation is high in 100% of the pregnant women in I trimester of the pregnancy, 55,6% in II trimester, 33,4% in III trimester.

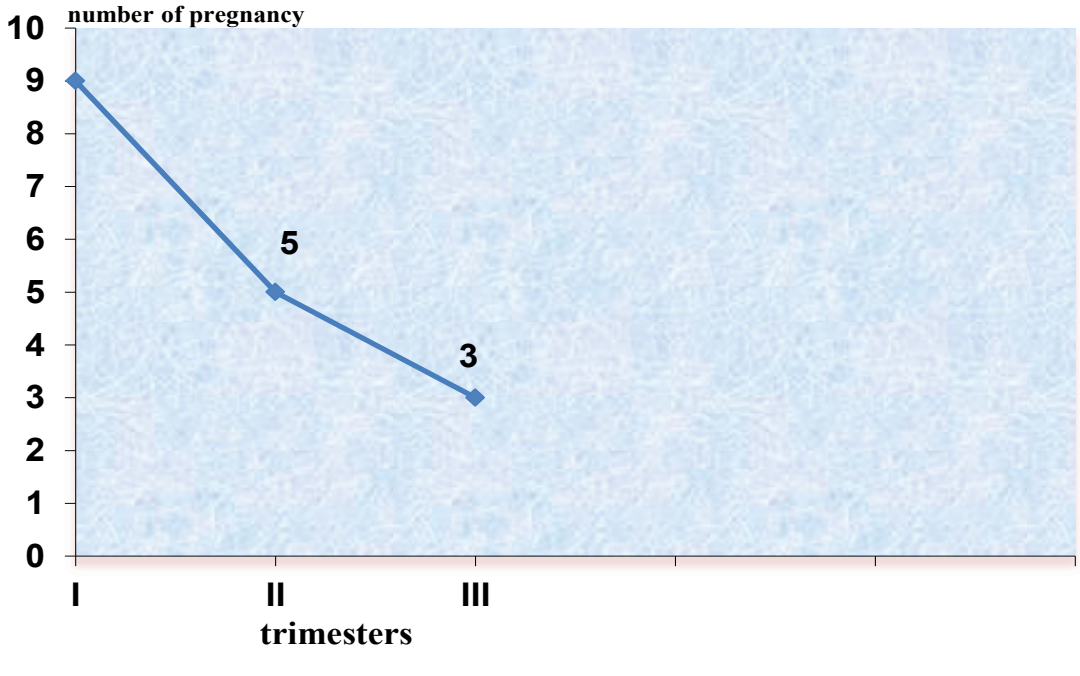

Figure 2.
Stomach fermentation in trimesters of the pregnancy

Considering negative effect of the medicines, blocking histamine H2 receptors and possessing antiacid property, to the prenatal growth of the fetus, on the purpose of the removal of the stomach fermentation, Geviskin medicine is prescribed 1 capsule on an empty stomach in morning for 15 days. The results of our clinic survey show that since the stomach fermentation became neutral 4-4.5 hours after intake of Geviskin medicine, evacuation of the food in intestine improved and irritation of the mucosal membrane of the esophagus is removed.

Chronic stomach ulcer is defined in 4 patients (7%) from 54 patients, the pregnancies of which are under our survey. Although this disease, widely spread for the last years, its rare case regards with pregnancy. We have joint opinion with S.G.Bulgakov (14) and we state that pregnancy effects to the secretor function of the stomach and increases the formation of the mucous. Motor function of the stomach strengthens, blood supply of the stomach improves regarding with the elevation of the condensation of the sexual hormones and activation is stated in the process of the restoration of the mucosal membrane.

Regarding with it, chronic stomach ulcer has light clinical flow without severing. The pains in the field of dagger like appendage and irradiation of these pains to the back throrax field is stated on all pregnant women under our survey. The patients complaint about severing of pains 20-30 minutes after the meal. According to the information, provided by them, the pains became calm after vomiting. Clinical symptoms of the disease is stated in 30th week of the pregnancy in one patient (25%), 33rd week in other patient, 17th week in 2 other patients (50%).

The serious examinations are not carried out regarding with the flow of the pregnancy for the definition of the diagnosis (gastroscopy, CT, x-rays). Anamnesis of the pregnant women is collected and anterior wall of the bell is palpated. Gregsen reaction is used for the analysis of the defecation, hemoglobin analysis in the blood is carried out. Gregsen reaction is negative and volume of hemoglobin is stable.

Diet is prescribed for the pregnant women, it is recommended to limit the physical activity. Although bed regime is prescribed, it is recommended to walk under room conditions. It is prescribed to intake the food for 5-6 tines daily. On the purpose of delay of the secretion of the salt acid, coffee, chocolate, citrus fruit juice, gaseous water, tomato, acid fruits, hard boiled eggs, fresh bread, fried meals are excluded from the menu. It is recommended to eat boiled vegetable, meat, fish and chicken meat.

In case of stomach fermentation, it is recommended to drink milk, carrot juice, eat water boiled rolled oats, banana, fresh cucumber. We urged to prescribe to one patient (25%) omeprasole during pregnancy. Other pregnant women completed the pregnancy, observing nutrition regime.

Hyperacid gastritis is stated on 6 patients (11%) from 54 patients under our survey.

According to information, provided by T.V. Lopatina and N.A. Krasnova (15) approximately on 50% of the patients stated hyperacid gastritis. Our clinical trials approve it. So, majority of the patients, whose pregnancies are under control, frequently appeal to the doctor with the complaint of “burn in the stomach”. These complaints start from first days of the pregnancy and stated in various periods, especially, II-III trimesters.

Considering negative effect of the modern diagnostic means to the prenatal growth of the fetus, we use classic methods, collection of the anamnesis, palpation, analysis of the blood and defecation while determination of the diagnosis.

While collecting of the anamnesis from the patients, we consider important to make clear the following issues:

1. Do the pregnant women intake steroid medicines against inflammation, especially, aspirin? So, secretory function of the stomach strengthens after intake of such medicines (16).
2. Does flow of the pregnancy accompany with toxicosis? It is necessary to define whether there is vomiting, characters of the vomiting masses. The purpose of it, is to make clear whether there is functional insufficiency of the cardiac part of the stomach regarding with pregnancy in accompaniment of the increase of the acidity of the stomach. Reduction of the tonus in sphincter of the esophagus in second part of the pregnancy is stated and it leads to the insufficiency of the cardiac part. In this case, progressing gastroesophageal reflux shows itself with clinical stomach fermentation. In frequent cases, this condition arises at the result of the renovation of the body at the result of the change of the hormonal status. It should be considered that this condition became severe with the increase of the intra stomach pressure and growth of the uterus.
3. To make clear whether there is the pathology of the gastroesophageal system which is hidden before the pregnancy.

So, newly formed hormonal status while the pregnancy effects to hidden pathology in gastroesophageal status and its initial symptom is stomach fermentation (9,17).

According to the anamnesis, collected from the pregnant women, it is determined that the stomach fermentation arises at the result of the intake of big volume meal, fatty and fried meal and spicy meals. According to their words, stomach fermentation arises 10-15 minutes after intake of the food or sometimes, after an hour and lasts for 2-3 hours. However, stomach fermentation does not completely remove and relapses for couple of times daily.

The stomach fermentation of our pregnant women changes depending on the position of the patients. So, majority of the pregnant women states that the stomach fermentation happens more acutely when they are in a horizontal position, some pregnant women state that the stomach fermentation is acute when they lay in left side.

Pregnant women, suffering from hyperacid gastritis, are examined by gastroenterologists and they passed the below stated treatment on the basis of their recommendations:

1. The meals, irritating the mucosal membrane of the stomach, are prohibited;
2. It is recommended to rise the part under the head at least 150 degree while going to the bed;
3. To get the daily meal with 7-8 times intervals and after the meal, it is recommended to walk with small steps;
4. It is recommended to avoid rise and getting low while occupying with physical education and other domestic works;
5. It is recommended to eat fruit and vegetables in boiled form;
6. In case when the intake of the medicines is unavoidable, H2-histamin receptors blockage and proton pump inhibitors shall be used. On this purpose, 2 pregnant women shall intake 1 tablet, De-nol, one pregnant woman intakes 1 capsule of Landoprasol on an empty stomach in morning.

Results of the flow of the pregnancy: spontaneous miscarriage in 6 pregnant women (11%) from 54 pregnant women, accompanying with gastrointestinal diseases.

Spontaneous miscarriage of 2 pregnant women (33%) stated in I trimester of the pregnancy, spontaneous miscarriage of 3 pregnant women (50%) in II trimester of the pregnancy, spontaneous miscarriage of one pregnant women (17%) in I trimester of the pregnancy.

Ceasarean birth is carried out in 6 pregnant women (12.5%) from 48 patients, 42 pregnant women gave birth with physiologic way (87.5%). Two pregnant women required the birth with Ceasarean cut (33%). The surgical operation is used with the direction of the fetus in remainder patients.

Low weight is stated in 8 patients (17%) from 48 infants, atresy of the rectum is stated in one patient (2%). So, 15 pregnant women (28%), suffering from esophageal diseases, have fetus with abnormal growth (schedule no 2).

32 patients (59%), passing the treatment at gastroenterologist after the birth, appealed to clinic with recurrent pregnancy. 5 patients (16%) become pregnant 2 years after first pregnancy, 7 patients (22%) 3 years after the pregnancy, 11 patients (34%) 4 years after the pregnancy, 4 patients (12.5%) 5 years after the pregnancy, 3 patients (9.5%) 6 years after the pregnancy, 2 patients (6%) 7 years after the pregnancy.

According to the anamnesis, collected from the pregnant women, patient passed complete ambulatory, stationary and resort treatment (mainly in Yesentuki and Pyatigorsk resort houses). Surgical operation is carried out for 2 person and diaphragmal rupture is closed. The following is observed while the pregnancy. First of all, percentage of spontaneous miscarriage significantly reduced. Spontaneous miscarriage, observed in 11% of the pregnant women, included to I group, is stated in 9% (3 patients) of the patients, included to II group. Death and birth cases are not stated. Delay of the spinal column is stated under USI examination at the end of II trimester of the pregnancy of one patient and regarding with it, the pregnancy was stopped with artificial birth. Other 28 infants are healthy. 6 patients passed birth with Ceasaren cut (21%) and remainder patients give birth with physiological way (22 patients or 79%).

The flow of the pregnancy of the patients, suffering from gastroesophageal diseases, directed to the positive course after the treatment (schedule 1). Defected growth of the fetus reduced significantly. Abnormal growth of the fetus is stated only in 4 patients (12.5%) from 32 pregnant women.

Conclusion

From this point of view, we came to the conclusion that gastroesophageal diseases affect negatively to the prenatal growth of the fetus. This is approved on the basis of the results of the treatment of the patients, suffering from gastroesophaeal diseases. Therefore, before the pregnancy, gastroesophageal system shall be examined, the detected pathologic cases shall be eradicated and then, it is recommended to be pregnant.

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DYNAMICS OF HEMODYNAMIC PARAMETERS DURING GENERAL ANESTHESIA WITH THE USE OF THE LARYNGIC MASK OF PATIENTS WITH NODULAR THYROID FORMATIONS.

МРНТИ 76.29.37

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Abstract

The conducted study proved that at the stages of general anesthesia conducted with LM, the hemodynamic parameters undergo less changes than in general anesthesia performed by intubation of the trachea. The analysis of the obtained results allows to state that the general anesthesia carried out using LM is not inferior in adequacy and at the same time is less invasive than intubation anesthesia.

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Keywords
nodular goiter, general anesthesia, laryngial mask

Қалқанша безінің түйін ісіктері бар науқастардың ларингеальдық маскасын қолдануымен жалпы ауырсыздандыру кезінде гемодинамикалық параметрлерінің өзгеруі

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Аңдатпа

Өткізілген зерттеудің көрсеткені бойынша ларингеальдық маскасын қолдануымен жалпы анестезиялау кезеңдерінде гемодинамикасының көрсеткіштері кеңірдектің интубациялауы жасалатын жалпы анестезиялау кезіне қарағанда, өзгерістері аздау болатындығын көрсетті.

Алынған нәтижелердің талдауы бойынша ларинго-кеңірдектік маскасын қолдануымен өткізілген жалпы анестезиялау талапқа сай келетіндігі тұрғысынан төмен түспейді, сондай-ақ интубациялық анестезияға қарағанда азинвазивті екендігін тұжырымдауға болады.

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Түйін сөздер
түйінді зобы, жалпы анестезиялау, ларингеальдық маска

Динамика параметров гемодинамики при общей анестезии с использованием ларингеальной маски у пациентов с узловыми образованиями щитовидной железы

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Аннотация

Проведенное исследование показало, что на этапах общей анестезии, проводимой с ларингеальной маской, показатели гемодинамики претерпевают меньше изменений, чем при общей анестезии, выполняемой интубацией трахеи. Анализ полученных результатов позволяет утверждать, что общая анестезия, проведенная с использованием ларинготрахеальной маски, не уступает по адекватности и в то же время менее инвазивна, чем интубационная анестезия.

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Ключевые слова
узловой зоб, общая анестезия, ларингеальная маска

Introduction

Among thyroid pathologies (thyroid gland) the nodal (multinodular) nontoxic goiter is the most common disease [1].The pathology of the thyroid gland is in second place after diabetes mellitus among diseases of the endocrine system and is found in some regions of Russia in 25% of the population [2].Treatment of patients with nodular lesions of the thyroid gland is an actual problem in modern thyrology as a result of a large number of such patients, and due to the difficulty in determining the malignancy or benignness of the nodal formation [3].In Russia and Europe, duringa screening of a healthy population with the use of palpation, nodular goiter is found in 3-10% of the patients surveyed, in the USA approximately in 4-7% of the population [4].With ultrasound and autopsy of the gland tissue, nodal formations are determined in 50% of cases.More than 30% of women over 30 years of age have some focal changes in thyroid tissue.The prevalence of nodular pathology of the thyroid gland in the population is extremely high, the nodes of the cytosome of the prominent gland are palpable in 4-7% of the population, with ultrasound screening the nodes in the thyroid gland are found in 50% of cases [5]. One of the main methods of treating nodular goiter is surgical intervention [6].

Currently, despite the abundance of various anesthesia technologies, there is no optimal option that meets all the requirements for anesthesia in operative treatment of thyroid nodules. [7]. Laryngeal mask (LM) is an airway device and occupies an intermediate position between the facial mask and the introduction of the endotracheal tube by its anatomical location and degree of invasiveness [8,9].

A number of authors in their studies emphasize the advantages of LM in comparison with the introduction of the endotracheal tube. The possibility of avoiding laryngeal edema was noted by J. Frappier et al. [10]. Al-Mazrou KA1, Abdullah KM, et al. (2010). They studied the effect of LM on the larynx during general anesthesia. Observable studies have shown that LM is safer for the anatomical and functional state of the larynx than the introduction of the endotracheal tube [11]. The use of LM improves the quality of anesthesia, reduces the number of intro- and post-operative laryngeal complications [12,13].

Anesthesia with the use of LM relative to endotracheal intubation is the first in reducing the exit time after surgery [14].According to several authors, LM has the following advantages over the introduction of the endotracheal tube: a fast and atraumatic setting; does not require the use of a laryngoscope; less in situ stimulation, which allows the use of lower doses of anesthetics and predisposing to a more rapid exit from the state of drug sleep; early recovery of cough and ciliary function; gives a lower resistance to breathing, due to its relatively wide tube; can be used when intubation of the trachea is impossible due to the patient's physical condition [15,16].

Objective of the work - to assess the effect on general hemodynamic indices of general anesthesia with the use of the laryngial mask in comparison with intubation of the trachea in patients operated for nodular thyroid formations.

Material and methods

60 patients with nodularization of the thyroid gland operated in the endocrine surgery department of the Academician M.A. Topchubashov Scientific Center of Surgery for a period were examined. Depending on the type of anesthesia, the patients were divided into two groups: the 1stgroup (main group) consisted of 60 patients who underwent anesthesia with LM; and the 2ndgroup (control) included 40 patients operated under conditions of endotracheal anesthesia. Patients with concomitant diseases are not included in the study groups.

In both groups, patients aged 16 to 40 years prevailed - 62 patients (59.6%), patients group aged 41 to 60 years old - 35 patients (33.6%), a small number (6.7%) of the patients studied were in the age group ofpatients over 60 years old. In various age groups, female patients predominated - 80 patients (80%), the number of men patientswas 20 (20%). The distribution of patients by age in the groups was even and equal: the percentage of patients in the age group from 16 to 40 years in the 1st group was 60%, in the 2ndgroup - 57.5%; the percentage of patients in the age group from 41 to 60 years – 24 (40%) and 16 (40%) respectively.

According to the sex in the groups, the patients were equally distributed: in the first group there were 49 women (81.6%), in the second group the number of women was 31 (51.7%); number of men in the first group was 11 (18.3%), in the second group - 9 (22.5%).

The physical condition of the examined patients in both groups corresponded to I-II class ASA (Classification of the American Association of Anaesthesiologists).

In the preoperative period, all patients underwent ECG, X-ray and ultrasound examination; determined biochemical indicators, general blood, urine, and initial hemodynamic status; during the anesthesia, the parameters of hemodynamics, the acid-base state and the gas composition of the blood were determined; the depth of anesthesia was monitored by BIS monitoring.

In both groups, the premedication and medical anesthesia of general anesthesia were identical (premedication - 1 ml Benzodiazepam, induction - Propofol 1.5-2.5 mg / kg, narcotic analgesic - Omnopon 1ml, relaxant-arduan 50ɵg / kg; inhalation anesthetic-izofluran 0, 8-1.5%).The operating time was 60.5 ± 5.5 minutes; the time of general anesthesia is 82.5 ± 5.1 minutes.Statistical processing of the data was made on the Intel® Pentium® 4® NT 3.00 GHz personal computer using variational and correlation statistics included in the software "Microsoft® Office 2007 SP 1 MSO", the package "Microsoft® Office Excel".

Results and discussions

10.5 ± 1.05 seconds were spent on LM installations, 9.5 ± 4.0 seconds on tracheal intubation; one patient required a second attempt at intubation.

In the main group, the total dose of isoflurane was 22.3% lower (0.07 ± 0.005 mg / kg / min) than in the control group (0.09 ± 0.004 mg / kg / min). The results of the studies showed that in the main group the leakage of the gas mixture did not exceed 6.9%, the peak pressure was at the level of 10.6 ± 2.2, and at the end of the exhalation the CO2 concentration was within the norm (32.9 ± 2.4mm). At the same time, in the control group, the leakage rate of the gas mixture was 7.2% (statistically the difference from the index of the main group was not reliable).

Thus, when LM was used, the leakage of the gas mixture did not exceed 7%, which indicated the adequacy of the creation of airtightness and airway patency on the LM side, similar to the endotracheal tube.

When analyzing the results of blood gas composition and acid-base blood composition in all stages of the study, no significant differences were observed in both groups between levels of S. p.O2. Against the backdrop of artificial ventilation, in both groups the stable state in terms of gas composition and acid-base composition of the blood proved the adequacy of the general anesthesia performed using both LM and intubation tube.

In the stages of general anesthesia with LM, when compared with anesthesia performed by intubation of the trachea, the hemodynamic parameters underwent relatively smaller changes. In other words, LM influenced the indices of hemodynamics less than intubation of the trachea.Despite the adequacy of anesthesia, intubation of the trachea caused an increased response to hemodynamics: the pulse rate at intubation was 16.3% higher than when applied with LM ($p < 0.05$). In the main group, systolic blood pressure was lower than in the control group by 13.6%, diastolic blood pressure was lower by 9.5% and mean BP was lower by 7.3%. These indices indicated the absence of a pharyngeal reflex when applying LM. Against the backdrop of propofol, the effect of LM overlap on heart rate and blood pressure can be considered minimal, in comparison with intubation of the trachea on this background.At the same time, in both groups, hemodynamic parameters remained stable in all stages, which proved the adequacy of both methods of anesthesia.

Removal of the intubation tube in the control group significantly influenced all the hemodynamic parameters monitored: systolic blood pressure increased by 13.6%, diastolic blood pressure by 13%, mean blood pressure by 8.3% mmHg, and heart rate by 9, 4%. At the same time, removal of LM was not accompanied by hyperdynamic changes in the parameters of hemodynamics.

As a result, in all stages of the study of hemodynamics we have seen that the use of LM is effective in general anesthesia and is the least invasive method in comparison with intubation of the trachea.

After the extraction of LM and the endotracheal tube, the recovery time in the main group was shorter than in the control group: recovery of spontaneous breathing and consciousness in the main group occurred 8.4 ± 1.12 minutes, and in the control group, in 16.6 ± 1.3 minutes ($p < 0.05$).

In both groups anesthesia, as well as surgical complications were not observed.

Conclusion

The definition of hemodynamic indicators has proved that LM is less invasive than intubation of the trachea. During the general anesthesia on the background of controlled artificial ventilation, the gas composition and the parameters of the acid-base composition of the blood remained stable in both groups, and there was no statistically significant difference in their indices, which indicated the adequacy of ventilation and gas exchange.

The conducted study proved that at the stages of general anesthesia conducted with LM, the hemodynamic parameters undergo less changes than in general anesthesia performed by intubation of the trachea. The analysis of the obtained results allows to state that the general anesthesia carried out using LM is not inferior in adequacy and at the same time is less invasive than intubation anesthesia.

With the use of propofol, adaptation of LM with artificial ventilation allows the use of relatively smaller amounts of isoflurone.

After general anesthesia with LM, the recovery of adequate breathing and consciousness occurs earlier than after a general anesthesia

performed using intubation of the trachea; all this contributes to the reduction of postoperative complications.

Summarizing the above, one can come to the following conclusions:

Conclusions

1. The use of a laryngeal mask to ensure airway patency during anesthetic maintenance has minimal effect on hemodynamics due to the absence of mechanical effects on the mucosa of the trachea, and may be an alternative to intubation of the trachea.
2. The use of LM is not accompanied by unfavorable changes in the gas composition of arterial blood and oxygen transport.
3. The period of recovery of spontaneous breathing and consciousness after anesthesia using LM is almost 2 times shorter than after intubation anesthesia.

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ANALYSIS OF THE RESULTS OF MULTIPHASE COMPUTED TOMOGRAPHY IN THE DIAGNOSIS OF HEPATOCELLULAR CARCINOMA

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Abstract

Hepatocellular carcinoma is one of the actual problems in the structure of oncological pathology in the world and in Kazakhstan. In the diagnosis of hepatocellular carcinoma, the use of multiphase computed tomography is generally accepted. The article describes the analysis of the results of multiphase computer tomography with the correlation of cytological and histological studies in the diagnosis of hepatocellular carcinoma. ***Purpose:*** *Conduct a retrospective analysis of the results of multiphase computer tomography in patients with hepatocellular carcinoma.* ***Material and methods:*** *Analyzed the archival data of 50 patients with malignant liver tumors, whose received specialized treatment at the Kazakh Scientific Research Institute of Oncology and Radiology in period 2014 - 2017. All patients underwent multiphase computed tomography. The examination was carried out in 4 phases: native, arterial, port-venous and delayed. The scan was performed on the 30th, 60th and 120 second (respectively) after the administration of contrast agent.* ***Results:*** *The nodular form was detected in 76% of cases. If in 60% of cases the tumor was localized in the right lobe of the liver, and in 18% of cases - in the left, the lesion of both lobes was observed in 22% of cases. The sizes of the tumors were from 1 cm to 21.1 cm, and the average size of all nodes was 10.6 cm. The outlines of the tumors were uneven, but clearly defined in 92% of cases. In 94% of cases, the density of the formations was hypodense, the structure was heterogeneous with areas of increased and decreased density. The presence of central necrosis in the form of an "asterisk" was visualized in 8% of cases. The non-intensive inhomogeneous hyperenhancement in the arterial phase, with complete "washout" into the porto-venous phase, as well as in the porto-venous and delayed phases, was observed in 6% and 12% cases, respectively. In 80% of cases, hyperenhancement was observed in the arterial and venous phases. At the same time, complete erosion in the delayed phase was observed in 60% of cases, and incomplete leaching - 20%. In cytological studies, hepatocellular carcinoma was confirmed in 69.7% of cases. In 93.1% of cases, hepatocellular carcinoma was confirmed in histological studies.* ***Conclusion:*** *The nodes of hepatocellular carcinoma in most cases were characterized by clear, uneven contours, hypodense density, heterogeneous structure due to foci of necrosis and cystic component. When the tumor was bolus contrasted, hyperenhancement was in the arterial and port-venous phases, with "washout" in the delayed phase in most cases. According to the received data it can be said that multiphase computed tomography has high information value in the diagnosis of hepatocellular carcinoma.*

Keywords

liver, hepatocellular carcinoma, multiphase computed tomography.

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Гепатоцеллюлярлы карциноманы анықтауда мультифазды компьютерлік томографияның нәтижелерін талдау

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Аңдатпа

Гепатоцеллюлярлы карцинома бүкіл әлемдегі және Қазақстандағы онкопатологияның өзекті мәселелеріның бірі болып табылады. Гепатоцеллюлярлы карциноманың диагностикасында мультифазды компьютерлік томографияны қолдану кең таралған. Мақалада гепатоцеллюлярлы карциномамен аурыған науқастардың мультифазды компьютерлік томографиясының нәтижелеріне талдау жасалған. ***Жұмыстың мақсаты:*** *бауырдың қатерлі обырыңа шалдыққан науқастардың мультифазды компьютерлік томография нәтижелеріні ретроспективті талдау.* ***Материал мен әдістер:*** *Барлығы болып 50 науқастың мурағат деректері зерттелінді. Барлық науқастарға мультифазды компьютерлік томография өткізілді.* ***Нәтижелері:*** *76% жағдайда ГЦК түйінді формасын қураған. Егер 60% жағдайда қатерлі ісік бауырдың оң жақ бөлігінде орналасқан болса, 18% жағдайда - сол жақ бөлігінде, ал 22% жағдайда – екі бөлікте орналасқан. Ісіктің көлемі 1 см-ден 21,1 см-ге дейін болды, ал орташа көлемі 10,6 см құрады. 94% жағдайда ісіктің тығыздығы гиподенсты болды. 80% жағдайда ГЦК-ның контрасттік агентыны жинақтауы артериялық және веноздық фазаларда байқалды. Соңымен қатар, 60% жағдайда контрасттік агентының толығымен шығуы кейінге қалдырылған фазада байқалды. Гепатоцеллюлярлы карцинома қорытындысы 69,7% жағдайда цитологиялық зерттеулер арқылы жүргізілсе, ал 93,1% жағдайда – гистологиялық әдіс арқылы дәлелденды.* ***Қорытынды:*** *Көп жағдайда гепатоцеллюлярлық карцинома анық, біркелкі емес контурларымен, тығыздығы гиподенсты және гетерогенді құрылымымен сипатталды. Ісіктер контрасттық агентты артериялық және порто-веноздық фазалар кезінде жинақтаса, ал толығымен шығуы кейінге қалдырылған фазада байқалды. Алынған деректерге сүйене отырып, мультифазды компьютерлік томография гепатоцеллюлярлы карцинома диагностикасында жоғары ақпаратқа ие деп айтуға болады.*

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Ключевые слова

печень, гепатоцеллюлярная карцинома, многофазная компьютерная томография.

Анализ результатов мультифазной компьютерной томографии в диагностике гепатоцеллюлярной карциномы

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Аннотация

Гепатоцеллюлярная карцинома является одним из актуальных проблем в структуре онкопатологии во всем мире и в Казахстане. В диагностике гепатоцеллюлярной карциномы общепринятым считается применение мультифазной компьютерной томографии. В статье описывается анализ результатов мультифазной компьютерной томографии у пациентов с со злокачественными образованиями печени. ***Цель работы:*** *Провести ретроспективный анализ результатов мультифазной компьютерной томографии у пациентов с гепатоцеллюлярной карциномой.* ***Материал и методы:*** *Всего проанализированы архивные данные 50 пациентов. Всем пациентам было проведено мультифазная компьютерная томография.* ***Результаты:*** *Из всех образований печени узловая форма было выявлено в 76% случаях. Если в 60% случаях образование локализовалось в правой доле печени, а в 18% случаях – в левой, то поражение обеих долей наблюдалось в 22% случаях. Размеры образований были от 1 см до 21,1 см, а средний размер всех узлов составил 10,6 см. В 94% случаях плотность образований были гиподенсными, структура гетерогенной с участками повышенной и пониженной плотности. В 80% случаях накопление контрастного вещества образованием наблюдалось в артериальной и венозной фазах. При этом, с полным вымыванием в отсроченной фазе наблюдалось в 60% случаях. в В 69,7% случаях гепатоцеллюлярная карцинома подтвердилась при цитологическом исследований, в 93,1% случаях - при гистологическом.* ***Заключение:*** *Узлы гепатоцеллюлярной карциномы в большинстве случаев характеризовались четкими, неровными контурами, гиподенсной плотностью, гетерогенной структуры. Опухоли накапливали контрастное вещество в артериальную и порто-венозную фазы, с эффектом полного вымывания в отсроченную фазу в большинстве случаев. По полученным данным можно сказать, что мультифазная компьютерная томография имеет высокую информативность в диагностике гепатоцеллюлярной карциномы.*

Introduction

Hepatocellular carcinoma (HCC) - a malignant liver tumor derived from hepatocytes is the most common type of primary liver cancer (95%) [1, 2].

Hepatocellular carcinoma occupies the 5th place in the structure of malignant neoplasms and is the 2nd most frequent cause of cancer death worldwide (about 800 thousand patients died in 2012) [3, 4].

Although the incidence rate of most cancers declines, the incidence of hepatocellular carcinoma increases, and more than 600,000 new cases of HCC are reported annually in the world [5, 6].

Hepatocellular carcinoma represents a serious medical and social problem in many countries of the world, including in Kazakhstan. In recent years (2013 - 2017) in Kazakhstan, there has been an increase in the incidence of HCC to 5.9 cases per 100,000 population, and the death rate remains high (about 1,000 people annually). In 2017, 82.3% of the observed patients with HCC died at the end of the year. Five-year survival was 23.7% [7].

Hepatocellular carcinoma is characterized by aggressive course, in most cases with unfavorable prognosis, the five-year survival rate does not exceed 18%. Postoperative relapse is about 50% of cases [8, 9].

In the development of hepatocellular carcinoma, persistent infection of the hepatitis B virus (HBV) and hepatitis C virus (HCV), leading to cirrhosis of the liver, with subsequent transformation into cancer, is generally recognized. And also, aflatoxin B1 (AFB1) and chronic alcohol abuse are risk factors for the development of HCC [10].

The development of HCC in the cirrhotic liver is described as a multistage progressive process: a low-differentiated dysplastic node, a highly differentiated dysplastic node, a dysplastic node with a microscopic manifestation of HCC, small foci of HCC, carcinoma. The average time for doubling the mass of the HCC is 93.5 days, which reflects the slow growth of the tumor, and therefore, on average 3 years pass from the onset of HCC to the time of its first manifestation and diagnosis [1, 11].

The wide introduction of modern highly informative radiotherapy methods (ultrasound (US), computed tomography (CT), magnetic resonance imaging (MRI)) into clinical practice, as well as their improvement, helped to improve the detection of liver formations, becoming the main methods of non-invasive diagnosis and, accordingly, determination type of subsequent treatment and prognosis of HCC [9, 12, 13, 14].

According to the recommendations of American and European associations for the study of liver pathology, in the last decade in the diagnosis of liver formations, a multiphase study is widely used in computed tomography. The main goal of CT with the use of contrast agent (CA) is to maximize the difference in density between the normal liver parenchyma and neoplasms. The active use of bolus contrast in the study of the liver is very informative and allows not only to make a preliminary diagnosis, but also to conduct differential diagnosis. According to the guidelines, with typical radiation characteristics of the HCC, trephine-biopsy verification is not required. Due to the presence of a developed own pathological vascular network in the HCC structure, intravenous (bolus) contrasting with nonionic iodine-containing contrast preparations is used for differential diagnostics. HCC can be presented depending on the blood supply of both hypo and hypervascular tumor. The hypovascular variant is usually found in the early stages of tumor development and, with contrasting, is insignificant or does not increase at all in the arterial phase. The hypervascular variant has a rapid contrasting in the arterial phase and rapid «washout» in the porto-venous phase or the accumulation of CA by the pseudocapsule. The arterial phase is used to detect anomalies of arterial perfusion of the liver. Thus, the normal hepatic parenchyma surrounding the tumor may be hyperdense in the late arterial phase, which is formed due to the effect of the «draw-well», due to the fact that the neoplasm promotes a greater influx of arterial blood into the segment or the proportion of the liver to feed both itself and normal hepatic parenchyma. A typical type of arterial blood flow in a tumor is described in the literature as «sthreads and strips» [15,16,17].

HCC in the background of cirrhosis of the liver is usually surrounded by a capsule, represented by fibrous tissue and a layer of tightened liver tissue [18]. In CT, the capsule (or pseudocapsule) is defined as a thin hyperdense (hyperintense) rim around the node into the venous or delayed phase [19]. In the liver, affected by cirrhosis, the appearance of a capsule around the tumor is considered a sign of the progression of the disease [20,21,22,23].

Due to the late diagnosis of hepatocellular carcinoma, the presence of changes at the level of the micro- and macroorganism, not all patients can undergo surgery, despite the development of surgical treatment of HCC in recent years [24].

In connection with the progressive slow growth, asymptomatic course and late clinical manifestation, aggressive course and unfavorable prognosis of HCC, the value of early and refining diagnostics increases dramatically.

Purpose - Conduct a retrospective analysis of the results of multiphase computed tomography in patients with hepatocellular carcinoma.

Materials and methods

Analyzed of archival data (medical history, outpatient maps, CT studies, cytological and histological research) of 50 patients with malignant liver tumors, whose received specialized treatment (transarterial chemoembolization, radical surgery) in the Kazakh Scientific Research Institute of Oncology and Radiology in period 2014 - 2017.

The total number of men was 33 and women 17 patients, aged 36 to 79 years, with the average age of men being 61.3 ± 0.2 years, women - 59.7 ± 0.3 years (Table 1). All patients underwent multiphase CT. Multiphase examination of the abdominal cavity was performed on 64-slice computer tomographs «Light Speed CT» by General Electric and "Somatom Definition AS" by Siemens with the following parameters: 130 mA, 120 kV, collimation 0.75, pitch 0.9, the thickness of the cut is 1.0 mm. CT examination was carried out in 4 phases: native, arterial, port-venous and delayed. After the native scan, patients were injected intravenously (bolus) with a non-ionic contrast agent at a rate of 1 ml per 1 kg of body weight with an injector at a rate of 3.5 ml / s. The scan was performed on the 30th, 60th and 120 second (respectively) after the administration of CA.

To verify the diagnosis of malignant liver formation, 66% (33) of patients underwent a fine needle aspiration biopsy under the supervision of ultrasound. Trepan - a biopsy under the supervision of ultrasound was performed by 8% (4) patients. Patients underwent specialized treatment (transarterial chemoembolization from 3 to 5 courses). The next stage of treatment was surgical intervention. Extended combined hemihepatectomy was performed in 42% (21) patients, and partial liver resection (segmentectomy) 14% (7) in patients. Postoperative macro preparations were studied by histological method.

Results

In 84% (42) cases, the liver in size was enlarged, with uneven finely contoured contours in 10% (5) patients with cirrhosis. Of all liver formations, the nodular form was detected in 76% (38) cases, and the multinodular form in 24% (12). If in 60% of cases the tumor was localized in the right lobe of the liver, and in 18% of cases - in the left, the lesion of both lobes was observed in 22% of cases. At the same time, the largest number of nodes were located in the 4, 6 and 7 segments of the liver (Figure 1).

Table 1.
Features of the patients

Patients: n = 50, at the age of 36 to 79 years	Men	Women
	33 (66%)	17 (34%)
Average age	61,3±0,2years	59,7±0,3years

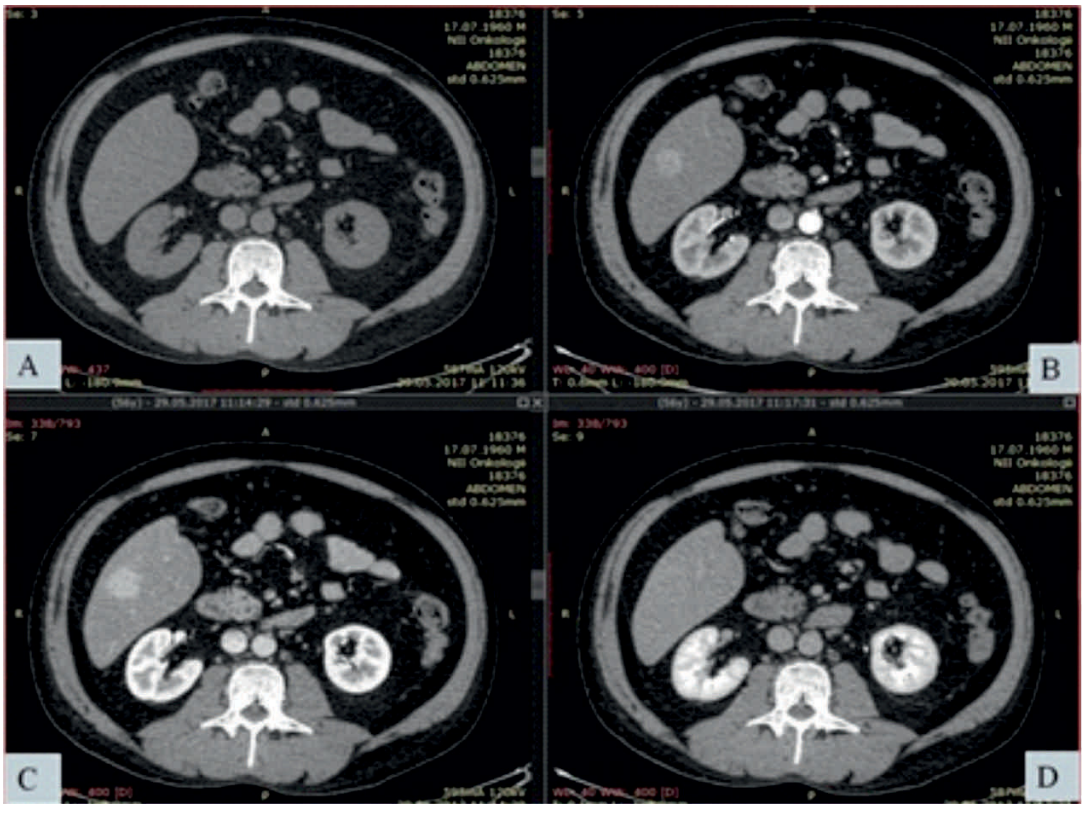

Figure 1.
Case of a patient A.57 y.o. man with HCC on the multiphase CT.
A – native – in S7 segment of the right lobe of the liver, is determined the density decrease focus, 2,1x2,0x1,8 cm, with smooth, well-defined contours, a homogeneous structure.
B – arterial and
C – port-venous phase – hyperenhancement of the contrast agent with a focus.
D – delay phase – "washout" of the contrast agent.

Characteristics of formation	N=50 (100%)	
	Absolute	%
Uneven, clear contours	46	92
Hypodensic, with a heterogeneous structure	47	94
Hyperenhancement in arterial and venous phase	40	80
«Washout» in delayed phase	30	60

Table 2.
Computed-tomographic semiotics of HCC

Formation	Multiphase CT (n=50)	Verification	
		Cytology (n=33)	Histology (n=29)
Hepatocellular carcinoma	92% (46)	69,7% (23)	93,1% (27)

Table 3.
Comparative evaluation of results multiphase CT and pathomorphological studies

The sizes of the tumors were from 1 cm to 21.1 cm, and the average size of all nodes was 10.6 cm. The contours of the formations were uneven, but distinct in 92% (46) cases. In 94% (47) cases, the formation density was hypodense, the structure was heterogeneous with areas of increased and decreased density. The presence of central necrosis in the form of an "asterisk" was visualized in 8% (4) cases. In 4% (2) cases, the nodes were represented as a cystic-solid structure. The non-intensive inhomogeneous hyperenhancement in arterial phase, with complete "washout" into the porto-venous phase, as well as in the porto-venous and delayed phases, was observed in 6% (3) and 12% (6) cases, respectively. In 80% (40) cases, the hyperenhancement was observed in the arterial and venous phases. At the same time, complete erosion in the delayed phase was observed in 60% (30) cases, and incomplete leaching - 20% (10) (Table 2).

In 4% (2) cases, a paradoxical accumulation of CA - the effect of incomplete leaching into the delayed phase with subsequent progressive accumulation was observed. In several cases, the accumulation of CA by the pseudocapsule and along the periphery of formation (16%, 8), solid component and capsule of the cystic component (4%; 2), in the form of nodes and zones (4%; 2). In 14% (7) cases, the patient's own pathological vascular network of education in the arterial phase was visualized. Depending on the localization of the formation, involvement of hepatic vessels (central vein (14%; 7), right (10%; 5) and left (8%, 4) hepatic vessels) was observed in the process. In 24% (12) cases, intra-organ metastases in the liver were detected.

In 92% (46) cases hepatocellular carcinoma was diagnosed with multiphase CT. Of the 33 cytological studies performed, hepatocellular carcinoma was confirmed in 69.7% (23) cases. In 93.1% (27) of cases, HCC was confirmed from 29 histological studies.

In the detection of hepatocellular carcinoma, the correlation of the multiphase CT and the cytological study was 69.7%, multiphase CT and histological examination - 93.1% (Table 3).

Conclusion

When analyzing the results of the study, it was found that in most cases, the dimensions of the liver were enlarged. The nodular form of hepatocellular carcinoma prevailed in most cases. The largest number of tumors were located in the right lobe of the liver, namely in the 6th and 7th segments. In general, the dimensions of the nodes were more than 2 cm. The nodes of hepatocellular carcinoma in most cases were characterized by clear, uneven contours, hypodense density, heterogeneous structure due to foci of necrosis and cystic component. In bolus contrasted, nodes of HCC characterized hyperenhancement in the arterial and port-venous phases, with "washout" in the delayed phase in most cases. In several cases, there was a pronounced intrinsic vasculature of the tumor. Of all the vessels of the liver, the greatest damage was seen in the central vein. Bolus contrasting of the liver, in several cases, allowed differentiation between the main node of hepatocellular carcinoma and intra-organic secondary (mts) nodes, according to the nature of the accumulation of contrast agent.

Thus, with the help of multi-phase computed tomography, it is possible to obtain morphological characteristics of the node of hepatocellular carcinoma, such as dimensions, contours, density, structure, the presence of an intrinsic vasculature of the tumor, involvement in the process of large vessels, etc. The nature of accumulation of contrast medium in bolus contrast is of great importance in differential diagnosis between hepatocellular carcinoma and other liver tumors. According to the received data it can be said that multiphase computed tomography has high information value in the diagnosis of hepatocellular carcinoma. In some cases, the accumulation of contrast material by formation may not be typical of hepatocellular carcinoma. As a consequence, further study of the characteristics of liver tumors is necessary for multiphase computed tomography.

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ENDOVASCULAR TREATMENT OF THE COMPLICATED AORTO-ILIAC ANEURYSM IN HIGH RISK OF COMPLICATIONS OF AN OPEN OPERATION

МРНТИ 76.29.30

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Abstract

Usually an aneurysm of the abdominal aorta is located below the level of the renal arteries, but in a number of cases it can be extended to iliac arteries. We present a case of the massive aorto-iliac aneurysm with high risk of intraoperational and postoperational complications, a performed endovascular technique (EVAR) that has been divided into 2 stages.

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Keywords
aneurysm, aorto-iliac aneurysm, stent-graft, endoleak.

Ашық отаның жоғары қауіпі бар науқасқа жүргізілген қолқа-мықын аневризмасының эндоваскулярлық емі

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Аңдатпа

Әдетте қолқа аневризмасы бүйрек қан тамырларынан төменгі деңгейде кездеседі, бірақ кей жағдайларда мықын қан тамырларына да өтіп кетуі ықтимал. Біз интра- және отадан кейінгі асқынулардың жоғары қауіптілігі бар қолқа-мықын аневризмасы кезінде науқасқа көрсетілген 2 этаптан тұратын эндоваскулярлық (EVAR) ем шаралары баяндалған.

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Эндоваскулярное лечение осложненной аорто-подвздошной аневризмы с высоким риском осложнений открытой операции

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Аннотация

Обычно аневризма брюшной аорты находится ниже уровня почечных артерий, но в ряде случаев она может распространится на подвздошные артерии. Мы представили случай массивной аорто-подвздошной аневризмы с высоким риском возникновения интра- и послеоперационных осложнений, при которой использована эндоваскулярная техника (EVAR), разделенная на 2 этапа.

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Ключевые слова
аневризма, аорто-подвздошная аневризма, стент-графт, эндолик.

Introduction

Aneurysm of the abdominal aorta is a consequence of a dilation of the aorta more than 3 sm or dilation more than 50% compared with the diameter of the aorta at the level of a diaphragm. In true aneurysm the pathological process involves all three layers [3, 4]. In absence of the corresponding treatment the proceeding dilation and the thinning of a vascular wall can finally lead to the rupture of aneurysm [11]. According to diverse data in case of the rupture of aneurysm the risk of the mortality is from 80 till 90%. In case of the aneurysm of 4-4,9 sm in size the risk of aneurysm rupture during the 1 year is 11%, but in case of the size of aneurysm more than 6sm the risk increases up to 25% [2]. Open surgical operation is still a gold standard in a treatment of an aneurysm of the infrarenal part of the abdominal aorta. It is a big operation including the removal of a dilated segment and implantation of the tissue transplantant. Open surgical treatment is performed in an urgent case after the rupture of an aneurysm or it can be performed by choice [6]. Despite the improvement of a technical equipment of operation theatres and systematic approach, in spread forms of an aneurysm the risk of the intraoperational and postoperational complications remains rather high. Endovascular aneurysm repair (EVAR) is a procedure of the treatment of aortic aneurysm without necessity of the performing of an open operation. Endovascular implantation of the stent-graft is the most suitable method in complicated forms of aneurysms and in the presence of concomitant diseases in patients due to safety and miniinvasive approach [9].

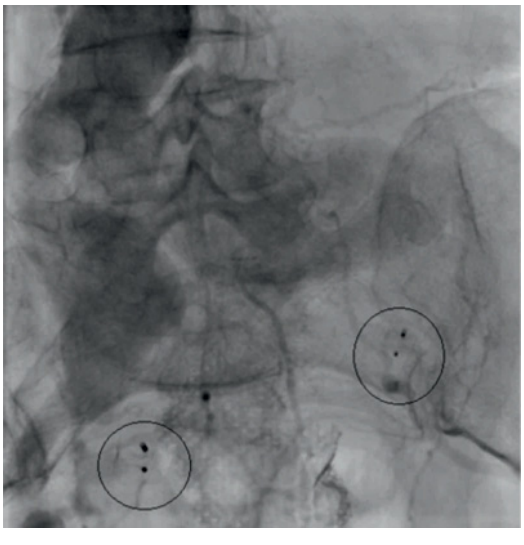

Fig. 1.
Internal iliac arteries occlusion with Amplatzer

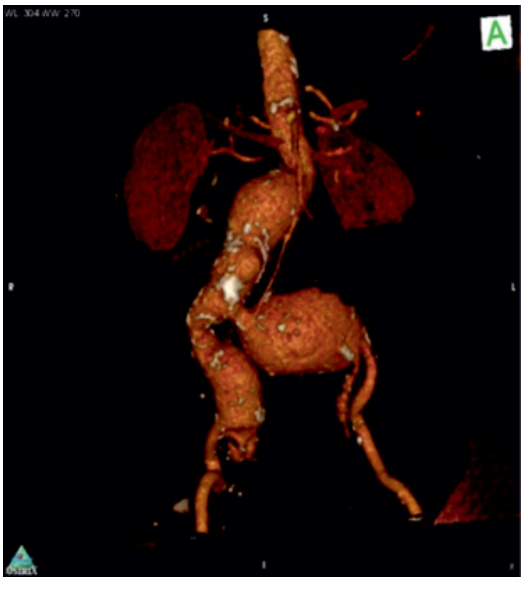

Fig. 2.
CT picture of an aneurysm

Case report

78-year-old non-smoking woman was hospitalized into the department of vascular surgery with arterial hypertension, maximum AP is 180/110 mm per mercury. She complained of pains in abdomen, also presence of a pulsating structure in the mesogastric region, increased arterial pressure. The CT scanning has shown the following changes: infrarenal aortic aneurysm with bilateral big aneurysm of the iliac arteries (Fig. 2). Maximum diameter of the aorta was 58mm, and the maximum diameter of the iliac arteries was 83 mm. CT scanning detected the signs of wall thrombosis in the proximal part of abdominal aneurysm.

According to words of the patient she had an episode of a falling from height (while taking the stairs), with appearing of painful feelings around umbilicus. In 1985 the patient had an episode of the myocardial infarction, since then he was observed by an ambulatory specialist, kept a basic therapy. He has Graves's disease in anamnesis. There was no hereditary predisposition. During the long time he suffered from the arterial hypertension with a maximum increase of the arterial pressure up to 180 mm per mercury. Because of the high risk of an open operative procedure, in connection with a concomitant pathology, increased body mass (BMI higher than 40), the patient was prepared for EVAR. Endovascular occlusion of the iliac arteries was performed as a first stage as othey were involved in a structure of an aneurysm and for following prevention of the blood stroke under the stent-graft, so called endoleakes. The right and the left internal iliac arteries were occluded using periphery occluders (St. Jude, Amplatzer) (Fig. 1) that has led to complete occlusion and in 2 weeks the patient was discharged from hospital with recommendations. In 3 weeks, he was hospitalized for stent-graft implantation. There was taken a system of stent implants like Endurant of the type II (Medtronic, Minneapolis, MN). The diameter of basic bodies: the proximal one – 32 mm, the distal one – 16mm, the length - 166 mm, it was delivered and implanted into the

lumen of the aorta and the iliac arteries. The right iliac branch was dilated using a balloon under pressure 16-13 atmosphere.

Because of the massive character of the aortic aneurysm and the left iliac artery the aorta became twisted, in connection with this there were some difficulties in implantation of the left stent-graft branch. It was agreed to aspirate the left axillary artery and deliver a trap of the wire loop. The hydrophilic conductor was delivered from the left femoral artery into the descending part of the aorta; the tip of the hydrophilic conductor was grabbed with a trap and pulled out into a lumen of the left branch of the basic graft. The hydrophilic conductor is replaced by a catheter to a hard conductor "Amplatz". The left branch 16-13-199 mm in size was delivered using a conductor along the left iliac end of the graft, and it was moved distally for 3sm forward from the aneurysm into external iliac artery. An oblong graft was chosen to decrease the risk of stent-graft dislocation. In postoperational period there were a wound maceration and lymphorrhea. The general condition did not suffer, there was a subfebrile temperature. During the first week the condition improved, and the patient was discharged. In 1 year after the control CT-scanning showed the complete exclusion of the aneurysm. However, there was an enlarged left common iliac artery, but it decreased up to 62 mm in size (Fig. 4).

Discussion

Implanted graft dislocation is an often expected complication in giant aneurysms. The deeper sweeping graft should be used to prevent the dislocation in such a type of case rather than offered ones in operation manuals, especially in big aneurysms of abdominal aorta [5]. Endovascular method is one of the basic methods of the surgical treatment of the aortic aneurysm. The improvement of stent-grafts, delivery devices will lead to the improvement of results and safety of the method. Meanwhile it provides us hope and ambition in the treatment of complicated cases, when the neck of an aneurysm is short, thrombosed or hard to be manipulated under angle. In this clinical case there were several complex moments: such as aortic neck angle, big cavities of an aneurysm of the left iliac artery can cause endoleak of the II type in the postoperational period, the sharp decrease of the hematocrit, and the stent-graft dislocation is not excluded too [1, 7, 8].

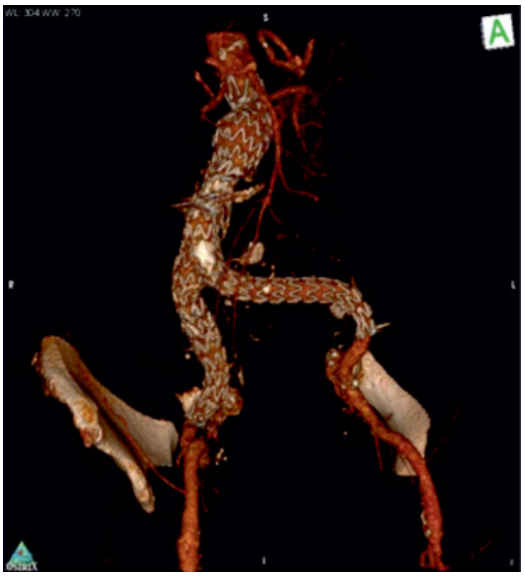

Fig. 3.
CT picture of in 1 year after operation

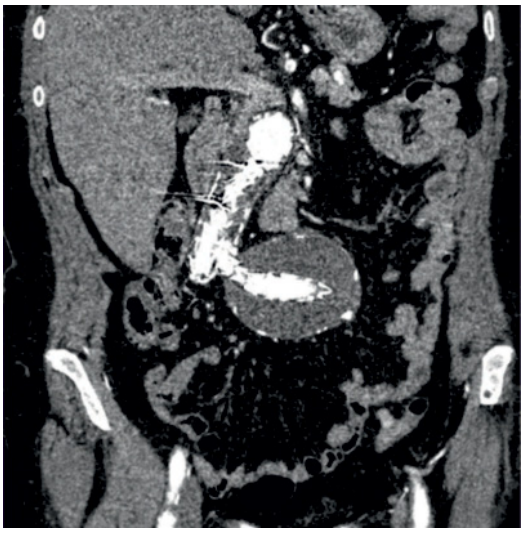

Fig. 4.
CT angiography of the left iliac artery after operation

Conclusion

We have to regard several moments in big aneurysms: the diameter of a basic body of the stent-graft must be bigger than the neck of an aneurysm not less than 15-20%, we have taken the basic body 32 mm in size, the internal diameter of the neck of an aneurysm was 25 mm, therefore the index was 28%, and also the curve and the short neck of an aneurysm could have increased the dislocation risk. Therefore it is important to choose non-multicomponent grafts to exclude the possible sources of the endoleak of the 2 type after stent-graft implantation.

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LESS TRAUMATIC APPROACHES OF FLEXOR-TENDON INJURIES OF HAND FINGERS IN MICROSURGERY

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Abstract

Tendon injuries of all motor system injuries occur in 1,8%-18,8% of cases, by various authors [1,2,3]. 32% of them are flexor-tendon injuries of hand fingers [4]. High frequency of flexor-tendon injuries of hand fingers and as a result - causing or loss disability level in 40% of victims, attest to the social significance of this problem [5]. The ongoing technical difficulties in the tendons surgery require further improvement of operational tactics. Purpose of this research is improvements in treatments of patients with flexor-tendon injuries of hand fingers, using low-traumatic access. ***Materials and methods.*** *In department of reconstructive microsurgery 410 of patients with flexor-tendon injuries of hand fingers were examined and operated from 2008 to 2017. The total number of flexor-tendon injures were 1005. The age of the patients ranged from 2 to 68 years. The majority of the patients are young people of working age (18-50 years old). The most of patients are 273 (66.6%) of professional workmen, 58 (14.1%) of handymen, 11 (2.7%) of students. In the seasonal distribution of flexor-tendon injuries predominate from May to July, fewer injuries accounted for winter. All surgeries were produced under conduction anesthesia using microsurgical techniques. The incisions were made along the palmar surface of the hand directly above proximal and distal ends of flexor-tendon injuries of hand fingers based on ultrasound data.* ***Results and discussion.*** *The complete recovery of phalanges flexor movements of fingers amplitude was obtained in 77.8% on average 1 year after the operation. Good results were obtained in 16.1% of patients, while the amplitude of the extensor movements of the fingers was associated with moderate tenogenic flexion contracture in the interphalangeal joints of the fingers. In 6,1% of the patients have satisfactory results, while active flexion movements in the metacarpophalangeal joints were restored, but the contracture of the fingers in interphalangeal joints in the position of physiological flexion developed. The part of patients with unsatisfactory results did not undergo appropriate rehabilitation therapy.* ***Conclusions.*** *Minimally invasive approaches combined with microsurgery techniques sufficient to undertake flexor-tendon of hand fingers reconstruction.*

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Keywords
Trauma, Reconstructive, plastic and aesthetic microsurgery, Hand

Қол саусақ сіңірлерінің микрохирургиялық жарақатының шағын емдеу-шаралыры

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Реконструктивті пластика және эстетика микрохирургия бөлімшесі, Алматы, Қазақстан

Аңдатпа

Тірек-қимыл жүйесінің барлық жарақаттарының арасында әр түрлі авторлардың айтуы бойынша сіңірдің зақымдануы 1,8% - 18,8% жағдайларды құрайды [1,2,3]. Олардың ішінде 32% саусақтардың бүккіш сіңірлеріне қатысты [4]. Саусақтардың бүккіш сіңірлеріне зақым келтірудің жоғары деңгейі және нәтижесінде зардап шеккендердің 40% жұмыс істеу қабілетін жоғалту сбебі ретінде әлеуметтік маңыздылығын растайды [5]. Хирургиядағы техникалық қиындықтар қазіргі таңдағы емдеу әдістерін әрі қарай жетілдіруді талап етеді. Осы жұмыстың мақсаты жарақаттық әсері аз тәсілдерді қолдану арқылы саусақтардың бүккіш сіңірлеріне зақым келген науқастардың емдеу нәтижелерін жақсарту болып табылады. ***Мәлімет және әдіс.*** *Реконструкциялық микрохирургия бөлімінде 2008 жылдан бастап 2017 жылға дейінгі кезеңде саусақтардың бүккіш сіңірлеріне жарақат алған 410 науқас тексеріліп, ота жасалды. Зақымдалған бүккіш сіңірлерінің жалпы саны 1005 болды. Пациенттердің жасы 2-ден 68 жасқа дейін болды. Пациенттердің көпшілігі (65,5%) жұмысқа қабілетті жастағы (18-50 жас) адамдар болды. Пациенттердің көпшілігі 273 кәсіби қызметкер (66,6%), қолөнершілер 58 (14,1%), студенттер - 11 (2,7%). Барлық оталар микрохирургиялық әдістердің қолданып, өңірлік анестезия бойынша өткізілді. Қолдың алақан бетіндегі кескін, ультрадыбыстық мәліметтер негізінде жүргізілді.* ***Нәтиже және талқылау.*** *Операциядан кейін 77,8% науқаста орташа 1 жылдан кеиін бүгу қозғалыстары амплитудасының толық қалпына келуі байқалды. Жақсы нәтижелер пациенттердің 16,1% ал қанағаттанарлық нәтиже - 6,1% - науқастарда байқалды. Қанағаттанарлықсыз нәтижелері бар науқастардың бір бөлігі тиісті оңалту терапиясын қабылдаған жоқ.* ***Қортынды.*** *Микрохирургиялық әдістермен біріктірілген жарақаттық әсері аз тәсілдер саусақтардың бүккіш сіңірлерің реконструкция жолдарындағы қолайлы әдісі болып табылады.*

АВТОРЛАР ТУРАЛЫ

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Менее травматичные доступы в микрохирургии травм сухожилий сгибателей пальцев кисти

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Аннотация

Среди всех повреждений опорно-двигательной системы травмы сухожилий, по данным различных авторов, происходят в 1,8% - 18,8% случаях [1,2,3]. Из них 32% - это травмы сухожилий сгибателей пальцев кисти [4]. Высокая частота повреждений сухожилий сгибателей пальцев кисти и как следствие - снижение или потеря трудоспособности у 40% пострадавших, свидетельствуют о социальной значимости данной проблемы [5]. Имеющие место технические сложности в хирургии сухожилий требуют дальнейшего усовершенствования оперативной тактики. Целью настоящей работы является улучшение результатов лечения больных с повреждением сухожилий сгибателей пальцев кисти, путем использования малотравматичных доступов. ***Материал и методы.*** *В отделении реконструктивной микрохирургии обследовано и оперировано 410 больных с повреждениями сухожилий сгибателей пальцев кисти за период с 2008 по 2017гг. Общее количество поврежденных сухожилий сгибателей составило 1005. Возраст больных колебался от 2 до 68 лет. Большинство пациентов (65,5%) составили лица молодого трудоспособного возраста (18 – 50 лет). Основная часть пациентов составили профессиональные рабочие 273 (66.6%), разнорабочие 58 (14.1%), учащиеся - 11(2,7%). Все оперативные вмешательства производились под проводниковой анестезией с применением микрохирургической техники. Разрезы по ладонной поверхности кисти производились на основании данных УЗИ, непосредственно над проксимальным и дистальным концами поврежденного сухожилия сгибателя пальца кисти.* ***Результаты и обсуждение.*** *Полное восстановление амплитуды сгибательных движений фаланг пальцев получено у 77,8% в среднем через 1 год после операции. Хорошие результаты получены у 16,1% пациентов Удовлетворительные результаты у 6,1% - у пациентов. Часть пациентов с неудовлетворительными результатами не прошли соответствующей реабилитационной терапии.* ***Выводы.*** *Менее травматические подходы в сочетании с методами микрохирургической техникой достаточны для выполнения реконструктивных вмешательств на сухожилиях сгибателей пальцев кисти.*

Ключевые слова

Травма, реконструктивная, пластическая и эстетическая микрохирургия, кисть.

Introduction

Tendon injuries of all motor system injuries occur in 1,8%-18,8% of cases, by various authors [1,2,3]. 32% of them are flexor-tendon injuries of hand fingers [4]. High frequency of flexor-tendon injuries of hand fingers and as a result – causing or loss disability level in 40% of victims, attest to the social significance of this problem [5].

The ongoing technical difficulties in the tendons surgery require further improvement of operational tactics. In particular, the compact arrangement of the functionally important hand anatomical structures, developing in the postoperative period, the cicatricial process limiting the restoration of finger movements predetermine the improvement of access to injured tendons [6,7,8].

Skin incision in hand surgery should provide sufficient access and good view of the operative site without development in the subsequent disrupting function of the scars. Vessels, nerves and tendons can easily be damage in wrong skin incisions in its own field; rough cicatricial deformations and contractures develop with all its consequences [9,10].

Purpose of this research is improvements in treatments of patients with flexor-tendon injuries of hand fingers, using low-traumatic access.

Materials and methods

In department of reconstructive microsurgery 410 of patients with flexor-tendon injuries of hand fingers were examined and operated from 2008 to 2017. The total number of flexor-tendon injures were 1005.

The age of the patients ranged from 2 to 68 years. The majority of the patients are young people of working age (18-50 years old). The most of patients are 273 (66.6%) of professional workmen, 58 (14.1%) of handymen, 11 (2.7%) of students. In the seasonal distribution of flexor-tendon injuries predominate from May to July, fewer injuries accounted for winter.

There are 331(80,7%) of men and 79 (19,3%) of women. Right wrist is traumatized in 265 (64,6%) patients, left one in 145 (35,4%). Domestic wrist trauma had in 79 (19,3%) of patients, production trauma in 331 (80,7%) of patients. In 75,1% of cases cut, chopped, stab, scalp wounds were encountered. In 22% of patients are stab-smashed, press, crushed injuries. 2.9% of cases are gunshot wounds.

Time prevailed between injury and admission to the emergency hospital before 6 hours in 288 (70,3%) of patients, from 6 to 24 hours in 100 (24,3%) of patients and after 24 hours in 22 (5,4%) of patients.

At entry clinic for isolated flexor-tendon injury was identified in 108 (26,4) of patients. 302 (73,6%) of victims have asked with combined injuries of arteries, nerves, tendons, bones of the hand and fingers.

Depending on the trauma level and features of the hand topographical and anatomical structure, injuries were in the 1st zone in 9 patients (2%), in the 2nd zone - 160 (39%), III zone 61 (14.9%), IV zone 123 (30%), in the V zone 57 injured (13.9%).

396 (96,6%) of patients were done ultrasound scan of hand tissue with a view to identifying the localization ends of the flexor-tendon injuries of hand fingers. 14 (3,4%) of patients didn't do ultrasound because the severity of general health.

The research allowed objectifying trauma tendons, informed about diastasis between tendon's ends and prejudges operational access.

Displacement of Tendons ends was 5-6 cm on the average in 389 (94,9%) of patients. In 7 (1,7%) of patients with wound in I zone (5 patients of them with flexor injury of V finger) proximal ends of flexor were found at the level of carpal tunnel.

All surgeries were produced under conduction anesthesia using microsurgical techniques. The incisions were made along the palmar surface of the hand directly above proximal and distal ends of flexor-tendon injuries of hand fingers based on ultrasound data (Figure 1).

In compliance with the features of the hand anatomical structure the incisions were done under magnification of x2,5 binoculars microscope without crossing transversely, the main dermal furrows of the hand.

Obliquely transversely by the length and width of the phalange was dissecting in I, II, III of tissue. In 233 (56,8%) of patients posttraumatic wounds expanded V-shaped the length of the middle and nail phalanges for allocating distal ends of flexor. In 56 (13,6%) of the patients with trauma at the level middle phalanges the distal end of flexor was allocated through cross-section at the level of main phalange. In 28 (6,8%) of the patient was at the level of middle palmar crease and in 7 (1,7%) – at the level of carpal tunnel. In IV and V zones with injuries additional incisions were done at the level of crease of the radiocarpal joints.

The tissues were dissecting to place of wound of tendon sheath. The revision of neurovascular bundle was made. The wound of sheath was expanding in transversely direction. When the finger was bent, the distal ends of the flexors were removed into the wound. In doing so, if the length withdrawing to wound of flexor end was less than 1 cm, the wound was dilated distally.

In 340 (82,9%) of patients were done the dissecting of surface flexor after allocating of trauma tendon ends in case of wound at I, II, III, IV zones. Manipulation was done special attention at the level middle phalange, where the flexor legs under the ligament are fixed to the periosteum.

The tendon manipulation was done under magnification of x2,5 magnifying glass. Using modified suture (Figure 2).

The tendons ends were sewed on mode by Cuneo with the filament of No. 2/0 line and applied one turn on each side of the tendon end, having deviated from the edge 1-2 mm. The axial load was evenly distributed throughout the tendon end, which prevented the stratification and corrugation of the tendons ends during further manipulation. The tendons ends were brought

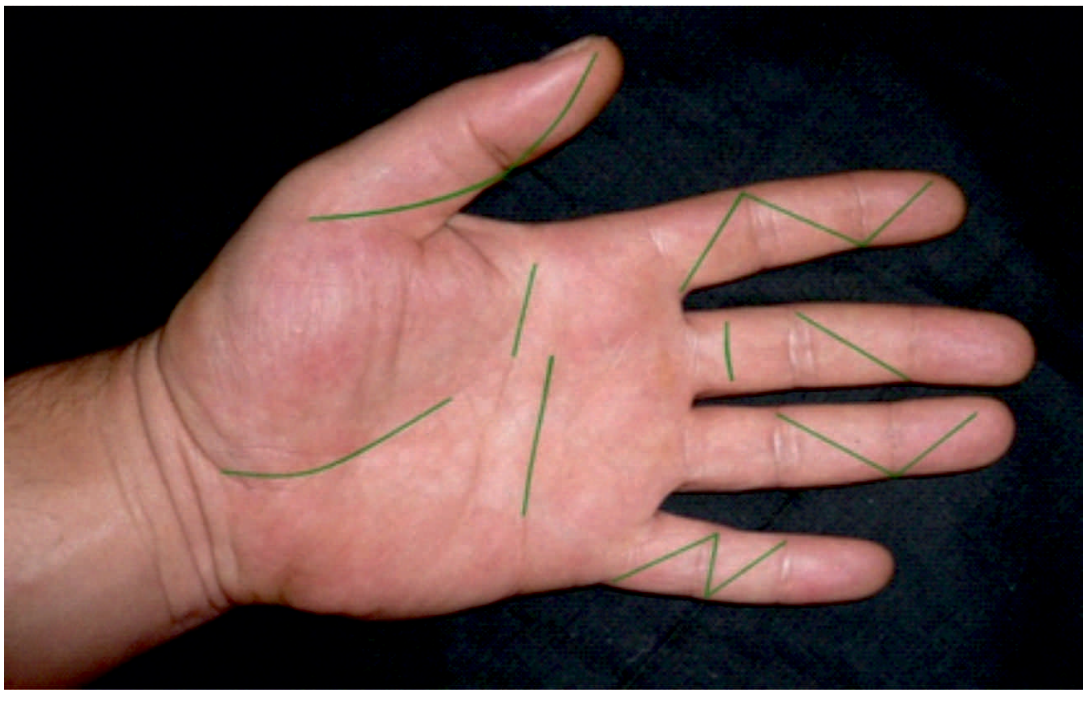
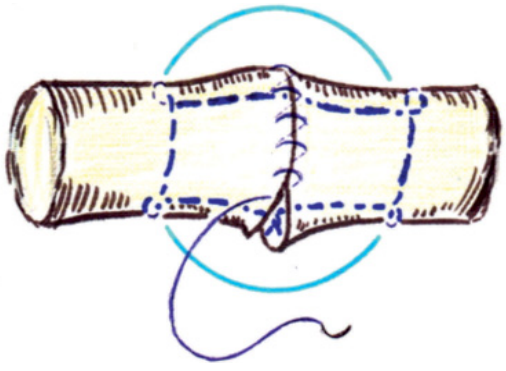


Figure 1.
Less traumatic incisions on the hand taking into account anatomical features

Figure 2.
Modified ligaments suture



«to each other» under the ligaments in the osteofibrous canal with the help of the Rozov's tendon conductor. This method of tendon suture allows the sewn tendons ends to pass through the bone-fibrous canal into the main wound of two incisions, without crossing the skin and the synovial sheaths during the diastase between the tendons ends. The strength of the modified suture allows avoiding fixing the injured segments with a gypsum langette and starting an early postoperative development of the cross-linked tendons.

The suture of arteries and nerves was done under magnification of x 10 microscope with filaments 8/0 - 9/0.

In 12 patients with extensive skin defects of the hand and fingers, full-layer skin plastic was produced. In 9 patients, the skin defect was eliminated by plastic surgery with local tissues. In 3 victims on the area of the restored tendons, a superficial palmar arterial arch and branches of the median and ulnar nerves, the radial flap was moved. The hand was fixed in a functional position.

Therefore, in 87 (21,2%) of patients one of the tendon end managed to extract from the main wound (proximal tendon end is in 52 (12,6%) of the patients and distal tendon end is in 35 (8,5%) of the patients) and for recovering of the tendon one incision or increase of the main wound was performed. In other patients were done 2 additional incisions.

Results and discussion

Remote results of surgical treatment of flexor-tendon injuries of hand fingers using minimally invasive approaches, modified tendon suture and appropriate rehabilitation therapy were observed in 162 (39,5%) of patients in place within a year to 3 years. In the long-term period from five to seven weeks were recorded 4 ruptures of the tendon suture, which occurred during development.

Evaluation of the results of treatment was performed under patient's examination 1 year after surgery based on scheme proposed by the American Association of Surgeons of the hand (AAHS), in the modification of I.N. Kurinnii. Phalanges flexion recovery of injured fingers was assessed as excellent from 75 to 100%, good from 50 to 74%, satisfactory from 25 to 49% and poor from 0 to 24%.

The complete recovery of phalanges flexor movements of fingers amplitude was obtained in 77.8% on average 1 year after the operation. Good results were obtained in 16.1% of patients, while the amplitude of the extensor movements of the fingers was associated with moderate tenogenic flexion contracture in the interphalangeal joints of the fingers. In 6,1% of the patients have satisfactory results, while active flexion movements in the metacarpophalangeal joints were restored, but the contracture of the fingers in interphalangeal joints in the position of physiological flexion developed. The part of patients with unsatisfactory results did not undergo appropriate rehabilitation therapy.

Conclusions

1. Minimally invasive approaches combined with microsurgery techniques sufficient to undertake flexor-tendon of hand fingers reconstruction.
2. Determination of the localization of the injured tendons ends with ultrasound scanning and small incisions on the hand allow us to observe the basic principles of low-injury technique and not to break the anatomical features of the hand structure, thereby improving the outcome of treatment of this category of patients.

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THE RESULTS OF SURGICAL AND MEDICINAL METHODS OF TREATMENT OF LIVER ECHINOCOCCOSIS

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Abstract

The article presents epidemiology, diagnosis and treatment of the cystic liver echinococcosis. The methods of treatment of the liver echinococcosis performed in our clinic in the framework of the scientific and technical project, planned for 2017-2019, on the topic of "Development of scientifically validated optimal surgical and medicamentous methods of treatment of the liver echinococcosis". Comparative analyzes of the results of medical, surgical and combined methods of treatment of the liver echinococcosis are presented.

Keywords
echinococcosis, liver, pericystectomy, albendazole

Бауыр эхинококкозын хирургиялық және дәрі-дәрмекпен емдеу тәсілдерінің нәтижелері

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Аңдатпа

Бұл мақалада авторлар бауырдың цистті эхинококкозының эпидемиологиясын, диагностикасын және емдеу тәсілін ұсынған. «Бауыр эхинококкозын емдеудің ғылыми негізделген оңтайлы хирургиялық және медикаментозды әдістерін әзірлеу» тақырыбына 2017-2019 жылдарға арналып, есептелген ғылыми-техникалық жобаны іске асыру шеңберінде біздің клиникамызда бауыр эхинококкозын емдеу әдістері сипатталған. Бауыр эхинококкозын емдеудің медикаментозды, хирургиялық пен құрамдастырылған әдістері нәтижелерінің салыстырма талдауы келтірілген.

Түйін сөздер
эхинококкоз, бауыр, перицистэктомия, альбендазол.

Результаты хирургических и медикаментозных методов лечения эхинококкоза печени

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Ключевые слова
эхинококкоз, печень, перицистэктомия, альбендазол.

Аннотация

В статье представлены эпидемиология, диагностика и лечение цистного эхинококкоза печени. Освещены методы лечения эхинококкоза печени, выполняемые в нашей клинике в рамках реализации научно- технического проекта рассчитанного на 2017-2019г., на тему «Разработка научно-обоснованных оптимальных хирургических и медикаментозных методов лечения эхинококкоза печени». Приведены сравнительные анализы результатов медикаментозного, хирургического и комбинированного метода лечения эхинококкоза печени.

Introduction

One of the actual problems in the abdominal surgery of Kazakhstan is the cystic liver echinococcosis caused by the ribbon helminth Echinococcus granulosus. According to the Committee of Consumer right Protection of the Republic of Kazakhstan, the incidence of echinococcosis among the rural population is growing in dynamics. The cause of the increase in the incidence of human echinococcosis is associated with non-compliance of the population with rules for keeping pets, inadequate control of the number of neglected animals, de-worming of service and domestic dogs. Nowadays, echinococcosis in Kazakhstan has become ubiquitous, whereas in the early 90's it was registered mainly in the southern region. Over the past almost 20 years, the incidence rate has increased 4.5 times (1993 - 1.3 per 100 thousand population, 2010 - 5.8). Given the relatively young age of patients, the high incidence of disability in repeated operations, the problem of surgical treatment of liver echinococcosis in endemic regions of Kazakhstan becomes more important every year. Despite the successes in the surgical treatment of the above-mentioned disease, the question of the optimal amount of surgical intervention remains open. According to the European protocols, with uncomplicated and giant forms of echinococcosis of the liver and lungs, antiparasitic therapy with albendazole at a dosage of 800 mg (10-15 mg / kg body weight) per day with subsequent follow-up is preferred. The introduction of this method of treatment, namely, conservative therapy without surgical intervention, is presents a great practical interest, because it reduces the risk of complications, deaths, relapses of the disease and reduces the costs of treatment of echinococcosis.

The aim of the study. To compare the results of the use of surgical and combined methods of treatment of liver echinococcosis, and identify the most optimal method of treatment of LE with the aim of reducing the recurrence of the disease.

Materials and methods

In the NSCS named after A.N. Syzganov from January 2017 to July 2018, 61 patients with a diagnosis of primary liver echinococcosis who were divided into 4 groups were treated in the framework of the scientific project «Development of scientifically-based optimal surgical and medicamentous methods for the treatment of liver echinococcosis» .

1 st group: pericycystectomy (with capsule removal) with the appointment of an antiparasitic drug -21-patient;

2 nd group: pericystectomy without antiparasitic therapy-13 patients;

3rd group: operation of echinococcectomy with the abandonment of the capsule and the appointment of an antiparasitic drug, 12 patients;

4 th group: conservative therapy without surgical intervention (the patient receives only antiparasitic drug «Albendazole») - 18 patients.

The average age was 38 years (21-68). In the sex ratio, female patients predominated among the patients-57% (26 cases). The proportion of men was 43% (20 cases). All patients underwent instrumental laboratory diagnostics in the preoperative period in order to verify the diagnosis. It is worth noting that laboratory methods of research in echinococcosis are not specific and allow us to obtain only auxiliary information to clarify the diagnosis. In this case, all patients in the preoperative period were immunoassayed for echinococcosis. To clarify the size, number and location of liver cysts, computed tomography (CT) and ultrasound (ultrasound) of the abdominal cavity were performed. The average size of the cysts was 10.8 cm (6.5-20.5). The presence of cysts in the right lobe of the liver was observed in 23 (50%) patients, in the left lobe -6 (13%) patients, bilobar location -17 (37%) patients. Staging of liver echinococcosis was performed on the basis of ultrasound results, according to the WHO classification from 2003 (Fig. 1).

Treatment of patients with cystic liver echinococcosis assumed an individual approach with consideration in each case of a possible combination of different treatment options. Patients who had a cyst size of less than 5 cm, stage CE1-CE3 took conservative therapy at an outpatient level, starting therapy with albezole was 10-15 mg / kg / day in 2 divided doses, with no side effects. The effectiveness of antiparasitic treatment was assessed by the following criteria: positive dynamics in ultrasound (reduction in the size of cysts, transition to CE4-CE5), on CT and MRT-control - decrease in lesion volume, signs of calcification.

Surgical treatment with indication for surgical intervention was carried out in accordance with the international recommendations of WHO.

Radical surgical treatment is pericystectomy. The technique of the operation consisted in stratification of the fibrous capsule of the echinococcal cyst from the parenchyma of the liver along the subadventential layer, where the large and smaller vascular duct elements along the line of separation on the liver surface clipped and ligated. This method of peritsistektomy of liver can avoid the occurrence of various postoperative hemorrhagic and biliary complications, which caused by the phased and thorough ligation of all vascular structures.

Non-radical surgery - echinococcectomy, traditional intervention, without removing the fibrous capsule.

Results and discussion

Intermediate analysis was performed between patients who underwent a radical operation - pericystectomy (groups 1,2, n = 34) and non-radical surgery - echinococcectomy (group 3, n = 12).

The distribution of patients is given in Table 2.

The average duration of the operation for performing radical interventions was 220 (105-540) min, which in comparison with non-radical operations was 178.6 (100-330) (Table 3). The average length of stay after pericystectomy was 7.5 (4-20) days, and when performing echinococcectomy - 10.2 (6-16). Relaparotomy in both groups was not observed.

Analysis of the results of surgical treatment of patients who had performed traditional liver echinococcectomy showed no early postoperative complications. Postoperative complications were observed in 4 patients who underwent pericystectomy in the form

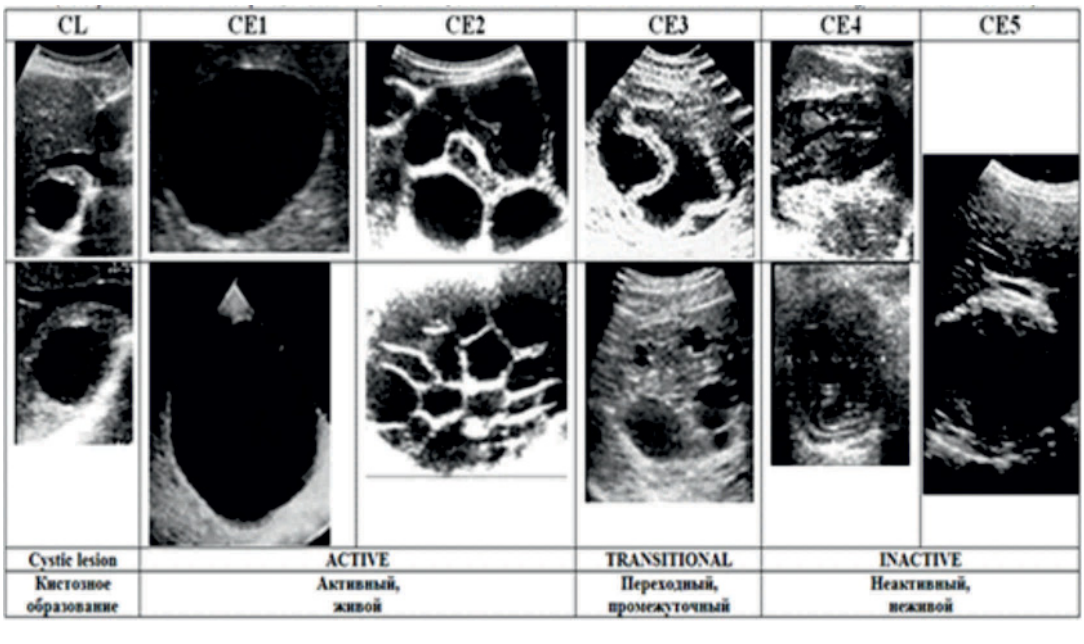

Figure 1.
Classification of ultrasound images of echinococcal cysts WHO 2003

Table 2.
Preoperative patient data

№	pericystectomy (N=34) average (min-max)	echinococcectomy (N=12) average (min-max)	p-value
Age	36.3 (18-66)	40 (24-70)	ns
Sex(f./m/)	10/24	(10/2)	< 0.05
BMI	22.7 (17-31.2)	24 (18-29)	ns
Positive ELIZA to EL	мам.34	02.жел	ns
Quantity of cysts	1.5 (1-4)	2 (1-3)	ns
size(cm)	11 (7.0-25.0)	10.6(6.0-16.0)	ns
Right lobe	17(50%)	6 (50 %)	ns
Left lobe	5 (14,7%)	1 (8.3 %)	ns
Bilobular location	12(35,3%)	5 (41,6 %)	ns
≤ **2segment**	19 (55.9%)	10 (83.3 %)	ns
≥ **3 segments**	15 (44,1%)	2 (16.7 %)	ns

Table 3.
Operational characteristics

	pericystectomy (N=34)	echinococcectomy (N=12)	p-value
Operation time (min)	220 (105-540)	178,6 (100-330)	ns
Relaparotomy	0	0	-
complications	4 (11,7%)	0	ns
Blood loss (ml)	249.6 (50-1500)	71 (20-250)	< 0.01

Table 4.
Operational characteristics

№	pericystectomy (N=34)	echinococcectomy (N=12)	p value
п/о осложнения			
Bilobular complications	3(8.8%)	0	ns
abscess	1 (2.9%)	0	ns
A/O bed-days	7.5 (4-20)	10.2 (6-16)	< 0.05
Complications by Clavien Dindo			
Grade 1	0	0	
Grade 2	0	0	
Grade 3a	4	0	ns
Grade 3b	0	0	
Grade 4	0	0	
Relapse	0	0	

of fluid clusters. (Table 4). All patients were cured with puncture interventions under the supervision of ultrasound. Biliary fistulas, as a rule, were closed independently up to 30 days after the operation.

Based on the analysis of the results of surgical treatment of patients with liver echinococcosis, it should be noted that until now pericystectomy remains the main type of treatment performed in our clinic.

In 18 patients who took conservative therapy at an outpatient level, there was a positive dynamics in ultrasound and CT in the form of a decrease in the size of the cysts, a transition in the CE4-CE5 stage, and signs of calcification.

During the observation period in all of the study groups, including group 4, there was no relapse of the disease.

Conclusion

The study is at the stage of continuation of recruitment of patients into groups for control studies. Based on the data obtained so far, conservative therapy without surgical intervention (group 4, the patient receives only antiparasitic drug «Albendazole») is effective in liver echinococcosis up to 5 cm in size. Also, in the treatment of liver echinococcosis with a size of more than 5 cm, a radical operation is pericystectomy, is an eco-

nomically and socially effective method of surgical intervention (less than the number of days in the hospital, early recovery of the patient's ability to work, $p < 0.05$).

In connection with the effectiveness of the above-described methods of treatment, it is advisable to continue working on this STP for more accurate prediction and identification of the optimal method of treatment of liver echinococcosis with minimal development of complications and relapses of this pathology. It is necessary to increase the number of patients to obtain more reliable results. At the moment, active work is carried out among city polyclinics and hospitals, as well as field visits by physicians of the department in the regions of Kazakhstan with training lectures for medical workers to identify the disease in the early stages and to recruit patients to the study groups.

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THE RATIONALE OF THE PREVENTIVE TRICUSPID ANNULOPLASTY IN ADULT PATIENTS WITH SEPTAL HEART DEFECTS

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Abstract

The article presents the results of preventive annuloplasty of the tricuspid valve in patients with septal defects of congenital origin. The high efficiency of preventing the progression of the tricuspid valve in the long-term after the operation is shown.

Перделік ақаулары бар ересек науқастардың үшжармалы қақпақшасының алдын-алу аннулопластикасын негіздеу

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Аңдатпа

Мақалада туа біткен жүректің перделік ақаулары бар науқастардың үшжармалы қақпақшасының превентивті аннулопластикасының нәтижелері көрсетілген. Отадан кейінгі алшақ кезеңдегі үшжармалы қақпақшаның прогрессивті жетіспеушілігінің алдын-алудың жоғарғы тиімділігі көрсетілген.

Обоснование превентивной аннулопластики трёхстворчатого клапана у взрослых пациентов с септальными дефектами

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Ключевые слова
аннулопластика, трёхстворчатый клапан, септальные дефекты.

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Аннотация

В статье представлены результаты превентивной аннулопластики трёхстворчатого клапана у пациентов с септальными дефектами врожденного генеза. Показана высокая эффективность предотвращения прогрессирования трёхстворчатого клапана в отдаленные сроки после операции.

Introduction

In cardiosurgical practice, an isolated ventricular septal defect (VSD) occurs quite often. According to various sources, the structure of all types of congenital heart disease makes up 30 to 50%. At the present stage of cardiac surgery, the diagnosis of VSD is not particularly difficult, and its treatment has undergone continuous improvement in recent years with the use of endovascular, minimally invasive and hybrid technologies. Early diagnosis and timely surgical intervention or other intervention aimed at closing the defect, can achieve consistently good results in the long-term follow-up period. However, it is known that the result of surgical treatment of VSD directly depends on the patient's age at the time of surgery, and is associated with an increase in the burden on the right heart and lung vessels.

The aim of the research is an evaluation of results of the preventive tricuspid annuloplasty in adult patients with septal heart defects.

Material and methods

The analysis was based on results of the 270 operated patients from 2011 till 2016. The age varied from 15 till 67 years (average age 24,5 years). 168 patients suffered from atrial septal defect. 77 patients had ventricular septal defect. 12 patients had anomalous pulmonary venous drainage, while 13 had atrioventricular septal defect. In 91 patients a heart defect was combined with tricuspid valve insufficiency of the I–II degrees and pulmonary arterial hypertension from 36 mm per mercury till 72 mm per mercury (average 52,6 mm per mercury).

Results

Congenital heart malformations, such as atrial septal defect, VSD, partial anomalous pulmonary venous return, atrioventricular septal defect in natural course are initially complicated by development of the hypervolemia in pulmonary blood circulation. Firstly, it leads to functional spasm of the pulmonary arteries, arteriols and precapillary vessels, being managed by use of spasmolytics. Further, it leads to stable spasm of pulmonary arteries and their sclerosing, expressed in development of the secondary pulmonary hypertension. With aging the pulmonary hypertension results in dilation of right heart chambers with their hypertrophy. Dilated right heart chambers stretch the fibrous ring of the tricuspid valve that results in development of the valvular regurgitation and relative tricuspid insufficiency. The closure of atrial septal and ventricular defects contributes the decrease in hypertension in pulmonary blood circulation and the secondary

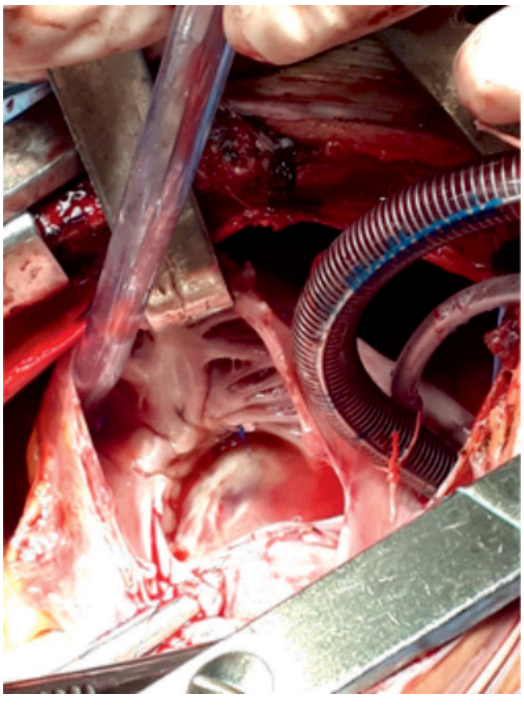

Fig. 1.
Secondary ASD closure using autopericardial patch and de Vega annuloplasty of tricuspid valve

pulmonary hypertension respectively that gradually diminishes the sizes of right heart chambers and tricuspid valve insufficiency respectively. Simultaneous closure of the atrial and ventricular septal defects in combination with tricuspid valve annuloplasty, squeezing the fibrous ring and liquidating valvular insufficiency promote more active decrease in sizes of right heart chambers and reduction of secondary pulmonary hypertension respectively. The septal defects were closed with patches from autopericardium, xenopericardium or PTFE on-pump. 91 patients underwent tricuspid annuloplasty using De Vega or Boyd technique, 18 patients - suture technique of the tricuspid annuloplasty. We have noticed that patients of older age (11 cases) which did not undergo tricuspid annuloplasty (the fibrous ring was not dilated and a good co-optation of cusps was saved in hydraulic testing) in postoperational period went back with progressive tricuspid valve insufficiency of the I-II degree. That was associated with residual pulmonary arterial hypertension which was characterized by dilated right heart chambers and dysplasia of the connective tissue in congenital heart malformations. Therefore we started to carry out the preventive tricuspid annuloplasty to all patients (46 cases).

Conclusions

Thus, in recent years, we perform the preventive tricuspid annuloplasty in combination with septal defects closure to all adult patients. That does not allow to progress the tricuspid valve insufficiency in postoperational period and increases the quality of a patient's life respectively.

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LAPAROSCOPIC NEPHRECTOMY OF THE GIANT HYDRONEPHROTIC KIDNEY. CASE REPORT

МРНТИ 76.29.51.

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Abstract

Clinical case of laparoscopic nephrectomy in a 25 years old patient with huge hydronephrotic kidney. At admittance patient complianted of pyrosis, fullness of stomach after a short meal, discomfort on the left flank. Despite huge dimensions laparoscopic surgery was considered. One of the most important aspects of surgery was the insertion of first troacar by the Hasson technique, under the visual guidance, because there was a probability for injury of intestine, which was drawn back laterally. After the successful placement of troacars pelvis was dissected, punctured and all liquid was aspirated, that was approximately 5 litres. Nephrectomy then was performed in a standard fashion, with no intraoperative complications.

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Keywords
huge, hydroneprhosis, laparoscopy, nephrectomy.

Көлемі ұлғайған су бүйректің лапароскопиялық нефрэктомиясының клиникалық оқиғасы

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Аңдатпа

25 жастағы науқастың көлемі ұлғайған сол жақ бүйректің гидронефроздық трансформациясы бойынша жасалған лапароскопиялық нефрэктомияның клиникалық оқиғасы сиппаталған. Ауруханаға түсер кездегі шағымдары тұрақты асқазан қызылы, аз көлемді тамақ ішкеннен кейін асқазаннын толу сезімі, сол жақ бел аймағындағы дискомфорт. Бүйректің үлкен көлемдеріне қарамастан лапарскопиялық ота жасау шешімі қабылданды. Отаның ең маңызды аспекттерінің бірі ең бірінші троакарды орнатқанда Хассон техникасын қолдану, көз бақылауы астында, өйткені ішектін латеральді шекте тартылуы мүмкін. Астаушаның диссекциясы жасалған соң пункция жасалып ішіндегі су сорылып алынды, көлемі 5л. Нефрэктомия классикалық түрде жасалынды, ота кезіндегі асқынулары болған жоқ.

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Лапароскопическая нефрэктомия гигантской гидронефротической почки. Клинический случай

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Аннотация

Клинический случай лапароскопической нефрэктомии у пациентки 25 лет с огромной гидронефротической трансформацией левой почки. При поступлении пациентка предъявляла жалобы на постоянную изжогу, чувство переполнения желудка при приеме небольшого количества пищи, дискомфорт в пояснице слева. Несмотря на огромные размеры почки, было принято решение провести лапароскопическую операцию. Одним из основных моментов при операции была установка первого троакара по технике Хассона, под визуальным контролем, так как была вероятность повреждения кишечника, которая была дислоцирована латерально. После удачной установки троакаров была выделена лоханка и с помощью пункции была аспирирована жидкость около 5 л. Нефрэктомия была выполнена классически, без интраоперационных осложнений.

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Ключевые слова
огромный, гидронефроз, лапароскопия, нефрэктомия.

Introduction

According to the previously published clinical cases, giant hydronephrosis usually occurs in children and are of congenital origin. It is rarely seen in adults, clinical presentation of which is very nonspecific mimicking gastrointestinal disorders and others, thus it is easy to be misdiagnosed [1].

In 1939, Stirling defined giant hydronephrosis as the presence of fluid exceeding 1,000 ml in the collecting system [1]. Now more than 600 cases have been reported worldwide to date, with most cases reported within the last 15 years [2].

Ureteropelvic junction (UPJ) obstruction is the most frequently revealed cause of hydronephrosis with an estimated incidence of 1 in 1000-1500 [3]. Other causes including ureter calculous, transitional cell carcinoma of pelvis, squamous cell carcinoma of the renal pelvis or renal, ureteral ectopia, duplicated collecting system, renal malformations, polar or aberrant vessels have been described in adults [4-7]. In our hospital was a case of a giant hydronephrosis on the left due to transitional cell carcinoma in UPJ that was unfortunately diagnosed only after histologic evaluation. UPJ obstruction is mostly considered as a functional obstruction originating from abnormalities in the smooth muscle of the pelvis and ureter [8].

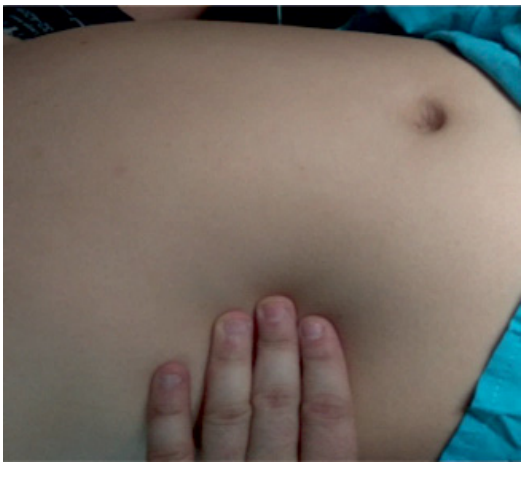

Fig. 1. Physical examination. Left part of abdomen more prominent than the right part

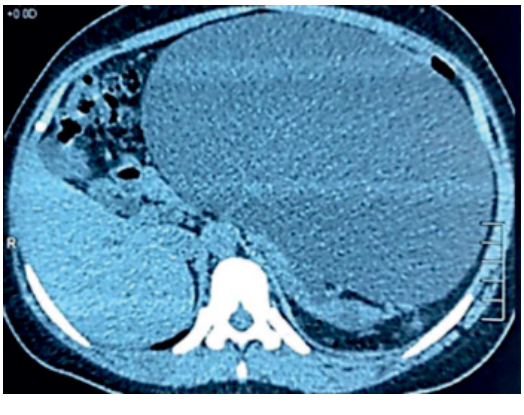

Fig. 2. On CT scan giant hydronephrotic left kidney extending to the midline

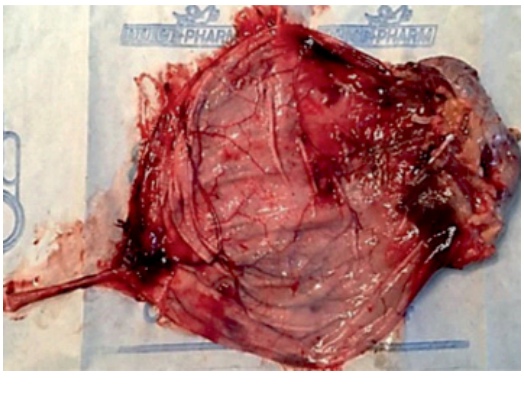

Fig 3. Gross appearance of the removed kidney

Even giant hydronephrosis has been reported over 600 cases, it is still not easy to differentially diagnosis. It usually presents with vague symptoms such as nausea, fatigue or dyspepsia, urinary tract infection, renal insufficiency, or gross hematuria after trauma in adults [9]. Giant hydronephrosis is a slowly progressive disease; patients may remain asymptomatic until late phase [10]. A wide range of differential diagnosis includes intraperitoneal, and retroperitoneal cysts, pseudomyxoma, renal tumor pancreatic pseudocysts, retroperitoneal tumor, and ovarian cysts or tumor [11]. The most important aspect of management is early diagnosis with accurate pre-operative delineation of anatomy of the affected kidney.

In our case patient had gastrointestinal disorders such as gastroesophageal reflux, fullness in stomach after a short meal. All the symptoms which were similar to the presentation of gastrointestinal disease can easily confound physician's diagnosis. Usually, it is not likely consider a giant hydronephrosis diagnosis firstly. Awareness of this situation, the clinician and radiologist could readily diagnose and provide appropriate therapy.

Nowadays, diagnostic instruments such as enhanced CT scans, antegrade or retrograde and excretory urographies, ultrasonography have facilitated the diagnosis of hydronephrosis, accurate diagnosis of giant hydronephrosis in individual cases is improved.

Aim of work - the presentation of a case of the laparoscopic nephrectomy of the giant hydronephrotic kidney.

Case presentation

A 25 years-old woman was admitted to the hospital with discomfort on the left flank, gastroesophageal reflux, fullness in stomach after short meal. On physical examination left part of the abdomen was more prominent than the right half (Fig. 1). During palpation frank tenderness was noticed on the left part on the abdomen. On ultrasound huge anaechogenic structure on the left part of

the abdomen was revealed. The volume of the latter was approximately 5000ml. On CT scans huge hydroneprotic left kidney was detected (Fig. 2). The parenchyma was 3mm with no contrast uptake was seen.She underwent laparoscopic nephrectomy on the left in our department. Patient was on lateral decubitus position. Patient underwent laparoscopic nephrectomy: troacar placement was performed by the Hasson technique. Primarily lateral flank on Toldt's line was transected and intestine was retracted medially thus exposing the kidney with it is surrounding tissue. Enlarged pelvis was dissected and all liquid was aspirated. Nephrectomy then was performed in a standard fashion.

Grossly removed kidney resembled deflated soccer ball (Fig. 3) On histologic examination hypertrophy of UPJ wall was detected. Patient was discharged on 4th postoperative day in a steady state.

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TRANSPLANTATION OF KIDNEY WITH RENAL ARTERY ANEURYSM WITH EX-VIVO RECONSTRUCTION. CASE REPORT

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Abstract

Clinical case of the transplantation of kidney with RAA. 25 years old patient with end-stage renal disease was referred to our hospital for living related kidney transplantation. His donor was his mother. During the preoperative evaluation of donor RAA of the left kidney was revealed. The dimensions of the latter were 2.0x2.0 cm. We preferred to harvest that kidney with aneurysm in order to save donor from further complications due possible rupture and perform reconstruction ex-vivo. All the objectives were achieved: transplantation was performed successfully and donor is now is apart from the risk of rupture.

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Keywords
artery, aneurysm, kidney, transplantation

Буйрек қантамыры аневризмасының ex-vivo реконструкциясымен жасалған бүйрек трансплантациясы. Клиникалық оқиға

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Аңдатпа

Артерия аневризмасы болған бүйрек трансплантациясының клиникалық оқиғасы. 25 жасар науқас біздің ауруханаға тірі туысқан донорлық бүйрек трансплантациясын жасату мақсатымен келіп түсті. Оның доноры туған анасы болды. Донорды отаға дейінгі зерттеу барысында сол бүйрегінде артерия аневризмасы анықталды. Аневризманың өлшемдері 2,0x2,0. см болды. Аневризманың келешекте жыртылу мүмкіншілігі болғандықтан, донорды сақтап алу мақсатымен аневризма болған бүйректі алып ex-vivo реконструкциясын жасау шешімі қабылдадық. Қойылған мақсаттар орындалды: бүйрек трансплантациясы сәтті өтті және донорда аневризманың жыртылу қауіпі жойылды.

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артерия, аневризма, бүйрек, трансплантация

Трансплантация почки с аневризмой почечной артерии с ex-vivo реконструкцией. Клинический случай

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Аннотация

Клинический случай пересадки почки с аневризмой почечной артерии. Пациент 25 лет с диагнозом терминальная стадия болезни почек поступил в нашу клинику для аллотрансплантации почки от живого родственного донора. Его донором выступила родная мать. При предоперационном обследовании у донора была выявлена аневризма сегментарной артерии левой почки. Размеры последней составляли 2,0x2,0. см. Мы предпочли сделать забор почки с аневризмой артерии для предотвращения сосудистых осложнений у донора, в связи с возможным разрывом аневризмы, и провести реконструкцию аневризмы ex-vivo. Все поставленные цели были достигнуты: была успешно проведена трансплантация почки и устранен риск разрыва аневризмы у донора.

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Ключевые слова
артерия, аневризма, почка, трансплантация

Introduction

According to the U.S. Organ Procurement and Transplantation Network and the Scientific Registry of Transplant Recipients (OPTN/SRTR) Annual Data Report in 2013, the total number of patients waiting for a kidney transplant is 96 607. Median waiting times for adults increased from three years in 2003 to more than 4.5 years in 2009 [1, 2]. In order to increase organ availability, it is necessary to evaluate the feasibility of kidney transplantation from living donors with RAA. Most commonly, it is asymptomatic and diagnosis is made incidentally during evaluation of different conditions, such as living donor workup [1]

A RAA is a dilated segment of renal artery that is more than twice the diameter of a normal renal artery [3].

Roughly, RAAs are saccular in 62%, fusiform in 24%, and dissecting in 14% [4]. Renal artery aneurysm (RAA) is a rare condition; the incidence of RAA is 0.7% [5]. Symptoms vary and may include hypertension, pain, hematuria, and renal infarction [6]; however, most patients are asymptomatic and lesions are benign. Pregnancy is associated with a higher rate of rupture [7].

Olakkengil in his study reported four living donors with RAA who had a mean follow-up of 3.5 years (range 1.9–8) [8]. The follow-up of donors included annual USD of the remaining kidney and renal function. He recommended following donors to look for an incidence of RAA in the opposite kidney, as Dzsinich reported bilaterality of RAA in 3.1%. The potential risk for rupture lies with increasing size of aneurysms.

The lack of organs for transplantation has resulted in increasing the criteria for selection of potential donors with so-called marginal kidneys with anatomical anomalies and even kidneys with small malignant tumors [9].

The reported series on transplantation from living donors with RAA are small and from a single center. Jung et al reported two cases with RAA that were 2 cm and 2.4 cm in size. Patients underwent hand-assisted laparoscopic donor nephrectomies and ex-vivo reconstruction ensued. The allografts worked well immediately postoperative, but no long-term outcomes were recorded [10]. Autopsy studies indicating the incidence range to be 0.01–0.09% [11].

Nahas et al reported 11 recipients from donors with vascular abnormalities, including three RAA cases, after open nephrectomy and ex-vivo reconstruction. One patient had arterial thrombosis at 55 months; the other two had a mean follow-up of 133 months with good renal function [12].

Case presentation

30-years old male was referred to our hospital for living related donor kidney transplantation. His donor was his mother. Donor didn't have any complaints, such arterial hypertension or flank pain. During preoperative evaluation aneurysm of left kidney was revealed. The latter was 2.0*2.0 cm. and had a saccular shape [Fig. 1]. Considering the tendency of aneurysm for further enlargement posing a risk for patient, we decided to harvest this kidney with ex-vivo reconstruction on back-table, thus preventing it from rupture in future.

Donor underwent laparoscopic hand-assisted nephrectomy. On back-table the renal tightly denuded and the aneurysm of segmental artery was revealed [Fig. 2]. The latter had a wide neck

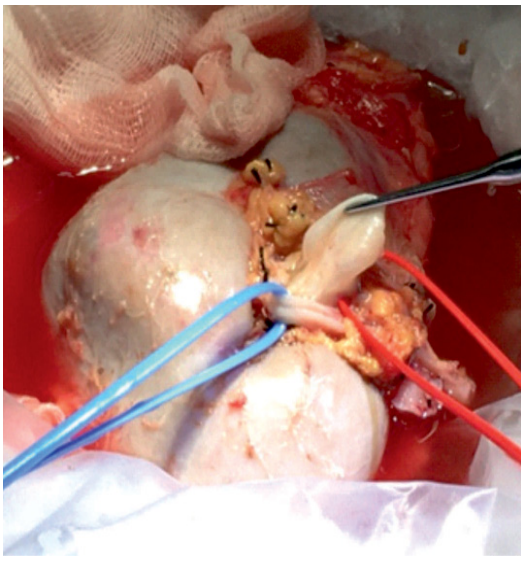

Fig. 1.
CT angiogram. RAA is 2.0*2.0 cm and has a saccular shape

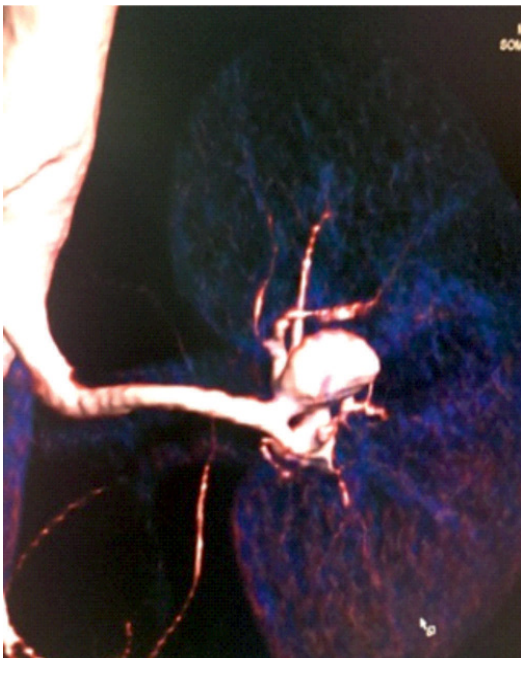

Fig. 2.
Kidney graft on back-table. Aneurysm is tightly dissected

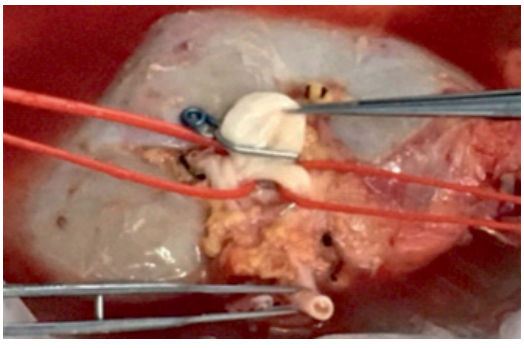

Fig. 3.
Aneurysm was clipped with metal clip at the neck

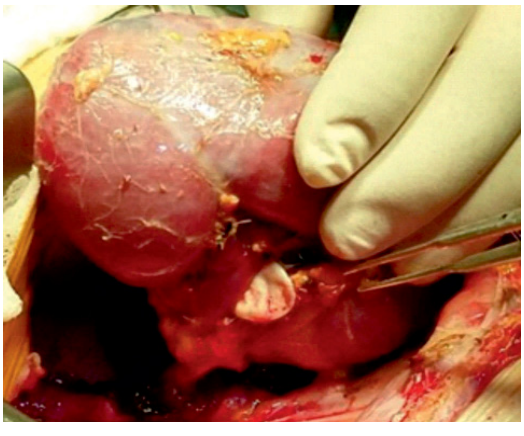

Fig. 4.
Kidney is engrafted in right iliac fossa

and it was preferred to put a metal clip [Fig. 3]. Graft was placed on right iliac fossa and arterial and venous anastomoses were performed in end-to-side fashion with external iliac artery and vein of recipient, respectively [Fig. 4]. Graft function was immediate.

Further ultrasound Doppler investigation revealed no circulatory disturbances. Patient was under the follow-up for only 6 months up to day and graft circulation and function is already good.

Conclusion

In this clinical case we presented an interesting clinical event of transplantation kidney with aneurysm of segmental artery. The aim was to perform successful transplantation and save donor from further risk of rupture of aneurysm and we completely achieved all objectives. Considering the lack of kidney donors it is socially important to expand the criteria for donor selection.

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CLINICAL OBSERVATIONS OF POSTOPERATIVE PROXIMATE AND LONG-TERM RESULTS IN PATIENT WHO UNDERWENT LAPAROSCOPIC CHOLECYSTECTOMY

МРНТИ 76.29.34.

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Abstract

In the period 2014-2017-s. in the Scientific Center of Surgery named after acad. M.A. Topchubashov in the department of surgery of the liver, biliary tract and pancreas 1596 patients underwent cholecystectomy for cholecystolithiasis. Of which 1372-mind (85.9%), laparoscopic cholecystectomy with minimal invasive technology was performed. This article is devoted to the study of postoperative proximate and long-term results in 100 patients who underwent laparoscopic cholecystectomy.

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Keywords
laparoscopic cholecystectomy, long-term results

Лапароскопичлық холецистэктомиядан кейінгі науқастардың ерте және алшақ нәтижелеріне клиникалық бақылау

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Аңдатпа

2014-2017-ші жж. академик М.А. Топчибашев атындағы ҒХО-дағы бауыр, өт жолдары және ұйқы безі хирургиясы бөлімінде 1596 емделушіге холецистолитиаз бойынша холецистэктомия отасы жүзеге асырылды. 1372 емделушіге (85,9%) шағын инвазивті технологияны қолданумен лапароскопиялық холецистэктомия жасалды. Біз таңдау критерийлерінің шектеуінсіз лапороскопиялық холецистэктомияны өткізген 100 емделушінің нәтижелеріне зерттеу жүргіздік. №1 кестеде жасы және жынысы бойынша емделушілер топтастырылып берілген.

АВТОРЛАР ТУРАЛЫ

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Түйін сөздер
лапароскопиялық холецистэктомия, алшақ нәтижелері.

Клинические наблюдения ближайших и отдаленных результатов у больных, перенесших лапароскопическую холецистэктомию

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Аннотация

В период 2014-2017 гг. в Научном центре хирургии им. акад. М. А. Топчубашова в отделении хирургии печени, желчных путей и поджелудочной железы 1596 пациентов подверглись холецистэктомии при холецистолитиазе. Из них 1372-ум (85,9%), лапароскопическая холецистэктомия с минимальной инвазивной технологией. Эта статья посвящена изучению послеоперационных ближайших и отдаленных результатов у 100 пациентов, перенесших лапароскопическую холецистэктомию.

ОБ АВТОРАХ

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Ключевые слова
лапароскопическая холецистэктомия, отдаленные результаты.

Introduction

To date, cholelithiasis affects 10-12% of the population in the West countries and 3-4% of the Asian population. Twenty million americans have concrements in the gallbladder, and surgeons in this country perform 600,000 cholecystectomies annually. Annual medical costs are $ 1 billion [1, 2, 3, 4].

The purpose of the study is researching the immediate and long-term results from patients who underwent laparoscopic cholecystectomy in our clinical observations.

Material and methods

1596 patients were undergone cholecystectomy at the Academy of Sciences named after M.A. Topchibasheva in the Department of Surgery of the Liver, Biliary Tract and Pancreas for the period 2014-2017-s. 1372 (85.9%) of which was performed laparoscopic cholecystectomy (LHE) using minimal invasive technology. Without limiting the selection criteria, we studied the results of 100 patients who underwent laparoscopic cholecystectomy. Table 1 gives the classification of patients by age and sex.

As shown in table, women more vulnerable than men. In this clinical material, the incidence of the disease among women in relation to men is 1: 4 (20 men and 80 women). Also, the majority of patients - 72 patients (72%) are people of the age category 18-60 years with labor ability. This fact proves that cholelithiasis is a social problem.

Patient's complaints of this group: Pain - especially after taking high-calorie food, acute, paroxysmal, radiating to the right scapula and right shoulder - 100%; nausea, sometimes vomiting - 94%; Heartburn -71%; swelling - 69%; Dyspeptic signs - 62% and general weakness, impotence -60%.

All patients (100%) had the abdominal cavity ultrasound: liver, gallbladder, biliary tract and pancreas. a thickening of the gallbladder walls by 0.5 cm in 38 patients, obturation of stones of various sizes, and gallbladder tension were determined. during surgery These signs were found in patients who underwent acute calculous cholecystitis. In the gallbladder, patients were found from 1 to 100, in one patient, even 387 pieces of stones of different sizes in the range 0.4 - 4.0 cm of soft and solid origin. In patients in this group, the reliability of ultrasound was 95.5%. Only in 8 patients, in order to clarify the diagnosis, it became necessary to examine CT and MRI cholangiography. All 8 patients had a free state of choledochus and LHE was produced in patients.

All patients have been done the chest X-ray examination (100%): the lung and heart changes were determined. Some patients had bronchitis, peribronchitis, and 1 patient had fibrosis at the tip of the right lung. 74 patients from this group underwent X-ray examination of the digestive tract, in 26 patients the same (26%) examination of the digestive tract was carried out by video fibro esophagogastroduodenoscopy. Based on the survey data, reflux esophagitis was defined in 9 patients, in 1 patient duodenal ulcer, in 1 patient, esophageal diverticulum, in 5 patients erosive gastroduodenitis and in 1 patient after gastrectomy. In the preoperative and postoperative periods, these diseases were conservatively adjusted. In the above diseases, the Ph-metry was made and in all cases a hyperacid and hypersecretory state was noted. In this case the apparatus «AGM-03 Acidogastrometer» was used.

Through the apparatus «CARDIOLINE» all ECG patients (100%) were made ECG. In this case, 3 patients had coronary heart disease (3.0%), 2 atherosclerotic cardiosclerosis (2.0%), 3 hypertensive disease (3.0%), and 1 patient with mitral valve insufficiency (1.0%). In this group, 9 patients with cardiac changes were treated with echocardiography. With this survey, attention was drawn to the ejection fraction of the heart. In all cases, the emission fraction was more than 50%.

All patients in the clinical laboratory of the ICC were made general and biochemical blood tests, tests for HBsAg, AntiHCV, RW and HIV. In 2 patients Hepatitis C was detected, 1 patient had Hepatitis B, and 5 patients had diabetes mellitus.

Table 2 shows a list of possible co-morbidities.

As it shown from the table, there are various complications and concomitant diseases in 42 patients.

Table 1.
The classification of patients by age and sex

Age groups	Men		Women		Reliability difference	Total	
	abc	%	abc	%		abc	%
Under 20	1	1.0	1	1.0	>0.05	2	2.0
21-40 age	3	3.0	27	27.0	<0.001	30	30.0
41-60 age	7	7,0	33	33.0	<0.001	40	40.0
61-75 age	9	9.0	18	18.0	<0.001	27	27.0
Above 75	-	-	1	1.0	>0.05	1	1.0
Total	**20**	**20.0**	**80**	**88.0**		**100**	**100**

№	Name of disease	Number	%
1	Chronic ischemic heart disease	3	3,0
2	atherosclerotic cardiosclerosis	2	2,0
3	idiopathic hypertensia II B	3	3,0
4	mitral incompetence	1	1,0
5	pancreatic diabetes	5	5,0
6	cardiophyshoneurosis	1	0,5
7	chronic bronchitis	2	2,0
8	Hepatitis C virus carrier	2	2,0
9	Hepatitis B virus carrier	1	1,0
10	hiatal hernia, Reflux-esophagitis	9	9,0
11	Erosive gastroduodenitis	5	5,0
12	Ulcer of the duodenum, bulbodeformation	1	1,0
13	Esophagus diverticulum	1	1,0
14	Condition after gastrectomy	1	1,0
15	Uterine fibroids	2	2,0
16	Biliary pancreatitis	3	3,0
Total		**42**	**42,0**

Table 2.
Concomitant diseases

Results

Taking into account all results of the examination and detection during surgery, the following diagnoses were confirmed: in 62 patients (62.0%) chronic calculous cholecystitis, in 38 patients (38%) acute calculous cholecystitis. A pathohistological examination of the gallbladder of patients with acute calculous cholecystitis was performed, and the following changes were observed in the examination: 12 patients (31.5%) catarrhal, 18 patients (47.3%) phlegmonous and 8 patients (21.2%) gangrenous changes (Figure 1-2).

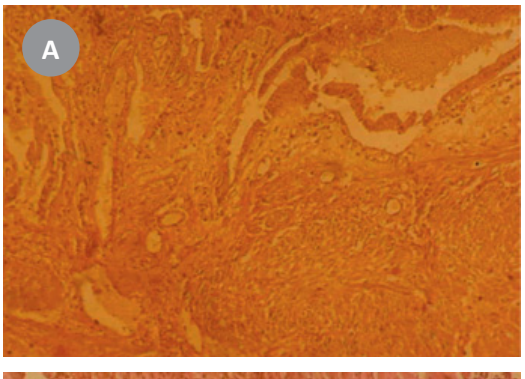
Patients who underwent LHE received antibiotic therapy the day before the operation and within 2 days after the operation, for a total of 5 days with a wide range of antibiotics: cephalosporins.

Patients on the day before the operation were given laxatives (Fortrans, Pikoprep), for evacuation of the intestine, the operated area was shaved.

All operations were performed with the help of intubation-endotracheal anesthesia, on the multifunctional operating table according to the American method with the use of equipment of the German production Karl Shtors.

Patients remain in the resuscitation and intensive care unit for 24 hours. The next day, they are transferred to the ward, the drainage tube is removed. The patient comes into an active state. A light meal is prescribed, and the next day it is prescribed for outpatient treatment.

According to the anesthesia card, all patients were examined the time between the beginning and the end of the operation, that is, the duration of the



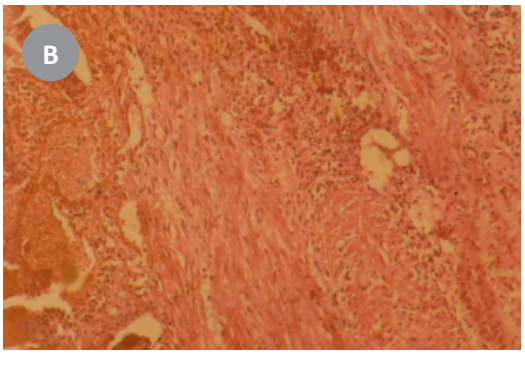


Fig. 1.
a) acute catarrhal cholecystitis. Color: Van-Gizon, magnification: ob.20; ok.10;

b) acute phlegmonous cholecystitis. Color: hem-eozin, magnification: ob.20; ok.10

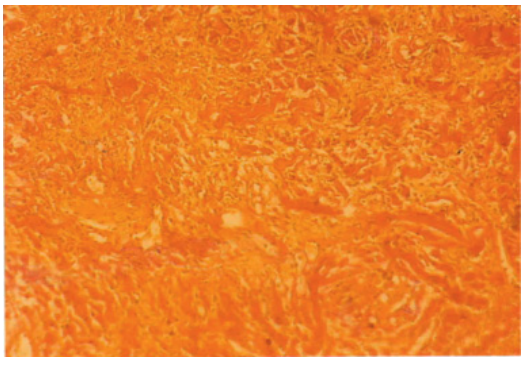


Fig. 2.
Acute gangrenous cholecystitis. Color: Van-Gizon, magnification: ob.20; ok.7

operation. Table 3 gives the results relative to the duration of the operation.

As shown in the table, the majority of patients (96%) have been operated for 20 minutes -1 hour, and only 3-4 patients had had surgery less than 1 hour and 20 minutes. At the same time, it is necessary to take into account the training of a specialist and the availability of clinical experience. So, doctors, who have just begun medical practice to perform this technically complex operation, need more time. As the experience increases, the duration of the operation decreases.

The average duration of surgery for patients who underwent laparoscopic cholecystectomy:

20x15 + 30x20 + 40x33 + 50x21 + 60x7 + 70x3 + 80x1 / 100 = 39.8 ± 1.2 (20-80) min. Approximately within 40 minutes.

Data on complications during surgery and conversions are shown in Table 4.

As shown in the table, there were no complications when imposing trocars into the abdominal cavity. In total, only 17% of patients had complications. The most common among them: perforation of the gallbladder with electrocoagulation of the vesicle and the penetration of bile and stones into the subhepatic region (in 7 patients). The cause of these complications has been the coagulation of the tip of the tip of the hook in the vascular bed. If the tip of the hook turns to the liver, liver injury occurs and hepatic bleeding occurs. And when you have moved the tip of the hook to the bubble, the wall of the bladder has been injured and bile penetrates, and with a large hole size, the stones fall into the abdominal cavity. To prevent this, we have been against coagulation in the event that the tip of the hook hasn't been visible, and we have given preference for the subserous coagulation compound by the back of the hook. In acute gangrenous and phlegmonous changes, we mainly have used a hook with a shovel-like tip. Cleaning the abdominal cavity of bile and gallstones has been an important issue. The sanation and obligatory drainage of the subhepatic area has been performed. In the event that the gallstones are not completely cleansed after a certain period, suppuration and abscesses form around them and give trouble to the patient.

Technical complications have been 2 patients, it became necessary to introduce the 5th 5 mm trocar. the need to expand the sub-groove cut due to the large size of the stones and the impossibility of their fragmentation was identified for 2 patinets. Based on a retrospective analysis of our clinical material, it should be noted that no iatrogenic disorders of extrahepatic bile ducts were noted.

Complications in the first postoperative period are reflected in Table 5.

As shown in the table, in 3 patients (3%) there was a suppuration of the wound in the podupus region and then a ligature fistula. All these complications have occured when the gall bladder was removed through the 1st trocar. For this reason, we have prefered the removal of the gallbladder through the 2nd 10 mm trocar.

Table 3.
Results of the operatione period

the operatione period- minutes	Number of patients	
	abc	%
20	15	15,0
30	20	20.0
40	33	33.0
50	21	21.0
60	7	7.0
70	3	3.0
80	1	1.0
total	**100**	**100,0**

Table 4.
Complications and conversion during surgery

№	Complications	Number of patients	
		abc	%
1	Perforation of the gallbladder, prolapse of bile and gallstones in the subhepatic area.	7	7,0
2	Application of the 5th trocar	2	2.0
3	Conversion	2	2.0
4	Extension of infraumbilical wounds	2	2,0
5	Separation of the cystic artery, bleeding.	1	1.0
6	Bleeding from the vesicular bed	3	3.0
	Total	**17**	**17,0**

№	Complications	Number of patient	
		abc	%
1	Suppuration of infraumbilical wound	3	3.0
2	Ligature fistula of infraumbilical wound	1	1.0
3	Relarascopy, laparotomy	1	1.0
4	Bile peritonitis (rejection of the clip in the bladder duct)	1	1,0
5	Residual choledocholithiasis	1	1,0
	Total	**7**	**7.0**

Table 5.
Complications after surgery

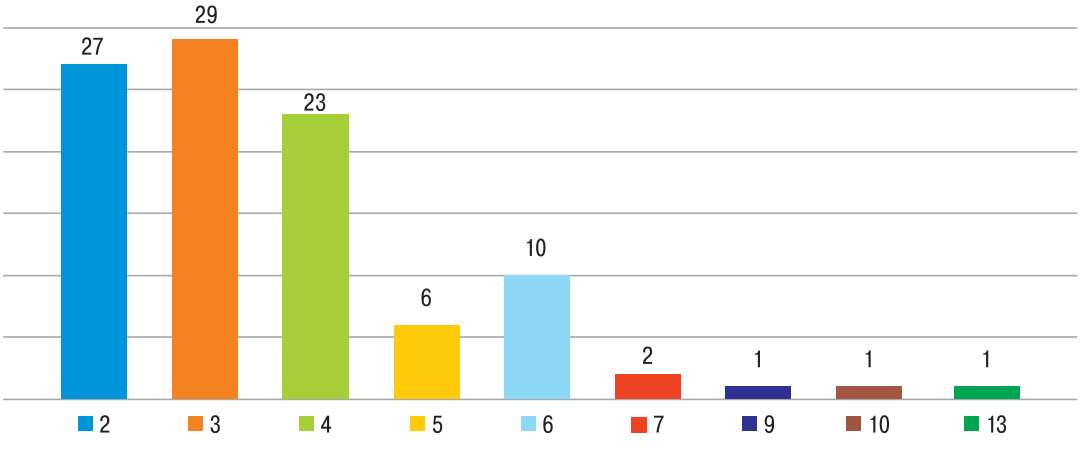


Рис. 1.
Число койко-дней

3 days after the operation 1 patient had a re-operative operation, which was performed because of the presence of bile peritonitis, drainage of the holedo with T-shaped drainage according to Kerr, and sanitation of the abdominal cavity. The patient was discharged home with recovery. After 17 days, the T-tube was removed.

One patient was discharged 7 days after the operation, acute pains appeared in the right upper quadrant, icteric sclera, subfebrile temperature. The patient was re-admitted to the clinic, laboratory tests were performed: bilirubin, fractions, AlAt, AsAt, QF, leykositoz, CRP were studied - in all indices, increases were noted. The patient underwent MRI cholangiography and showed an increase in choledocha and found 1 stone 0.6 cm in size. In this patient, jaundice was not observed after the first operation, bilirubin and fractions were normal, with an ultrasound of normal size, but obstruction of the stone in the bladder duct. We explain this complication by the migration of small stones to holedoch during manipulations during surgery. For this reason, in the presence of a stone stuck in the bladder duct during surgery, care must be taken to ensure that the concrement is present in the distant bladder. This patient was performed with RPST endoscopically, the calculus was withdrawn and the patient was discharged.

Based on the records in the history of all patients studied, the number of patient days of each patient was determined.

Figure 1 shows the number of bed-days. As can be seen from the figure, the majority of patients - 79 (79%) were discharged after 4 days, 18 patients (18%) - in a week, and only 3 patients stayed in the hospital for more than 1 week.

Average: 27x2 + 29x3 + 23x4 + 6x5 + 10x6 + 2x7 + 1x9 + 1x10 + 1x13 / 100 = 3.69 ± 0.25 for about 4 days.

Of the 100 patients who underwent LHE only in 88 (88%), information was received on the questionnaire for long-term results at 12, 24 and 36 months. Patients with the presence of complaints were invited to the clinic, he underwent objective laboratory and instrumental examinations (ultrasound, PHAGS, R-graph of the digestive tract). The results are shown in Table 6.

Grade	Number of patient		P
	abc	%	
Excellent and good (there are no complaints)	73	82.98	
Satisfactory (there are certain complaints)	12	13.6	<0.001
Unsatisfactory (there is a need for a repeat operation)	3	3.4	<0.001
Total	**88**	**100.0**	

Table 6.
Long-term results after 12 months
Note: *P - the reliability of the difference in valuation compared to the previous indicator*

Table 7. Complications 12 months after surgery

Complications	Number of patient	
	abc	%
Erosive gastroduodenitis	5	6.5
DQBD and reflux esophagitis	3	3.5
Trocharnaya hernia in the poductal area	2	2.9
Chronic pancreatitis	1	2.4
Residual choledocholithiasis	1	1.2

Table 8. Long-term results after 24 months
Note: *P - the reliability of the difference in valuation compared to the previous indicator*

Evaluation	Number of patients		P
	abc	%	
Excellent and good (there are no complaints)	79	89.8	
Satisfactory (there are certain complaints)	8	9.1	<0.001
Unsatisfactory (there is a need for a repeat operation)	1	1.1	<0.01
Total	**88**	**100**	

We identified the number of patients with complaints and the need for a repeat operation. The results are shown in Table 7.

Thus, the results of patients who do not have any complaints and feel clinically healthy have been assessed by us as excellent and good in 73 patients (82.98%).

The results of patients with postoperative complaints were evaluated satisfactorily in 12 patients (13.6%). These patients and before the operation suffered from chronic pancreatitis, erosive gastroduodenitis, DQBD hernia reflux esophagitis and after surgery received conservative treatment.

The results of patients who were diagnosed with postoperative hernia and residual choledocholithiasis as «unsatisfactory» were noted in 3 patients (3.4%) with unsatisfactory results. Troakarnye hernias after LHE surgery are found only in the case of removal of the gallbladder through a sub-groove incision.

In 1 patient with postoperative hernia, repeated surgery was performed and «In Lay» alloplasty, and in the patient with residual choledocholithiasis, the endoscopic RPST was performed and stones were withdrawn.

The results of the survey after 24 months are reflected in Table 8.

Patients with complaints and the presence of the need for surgery were invited to the clinic and examined. Patients with the syndrome of digestive disorders are prescribed conservative treatment. One patient, due to the presence of a subclavic trocaric hernia, after a certain period, performed herniotomy - alloplasty. The wound was delayed by primary healing.

The results of the survey questionnaire after 36 months are reflected in Table 9.

As shown un the table, the results obtained are satisfactory after 3 years. So, in comparison with the results after 12 months, the results were excellent and well improved in 10%, satisfactory in 45%, unsatisfactory results were not noted.

Conclusion

The incidence of cholelithiasis in women compared with men is 1: 4, 20 men (20%), 80 women (80%). All patients (100%) were: ECG, ultrasound, thoracic R-scopy, 8 patients (8%) CT and MRI, 74 patients (74%) contrasting P-scopy of the digestive tract, 26 patients (26%) video fibro esophagogastroduodenoscopy, and also the definition of HP and Ph.

As a result, 42 concomitant diseases occur in 42 patients (42%).

The diagnosis was confirmed: in 62 patients (62%) chronic calculous cholecystitis, in 38 patients acute calculous cholecystitis (38%). A pathohistological examination of the gallbladder of patients with acute calculous cholecystitis was performed, and the following changes were observed in the examination: 12 patients (31.5%) catarrhal,

Table 9. Long-term results after 36 months

Evaluation	Number of patient		P
	abc	%	
Excellent and good (there are no complaints)	81	92.1	
Satisfactory (there are certain complaints)	7	7.9	<0.001
Unsatisfactory (there is a need for a repeat operation)	0	0.0	<0.01
Total	**88**	**100**	

18 patients (47.3%) phlegmonous and 8 patients (21.2%) gangrenous changes.

On average, the duration of the operation is 39.8 ± 1.2 (20-80) min. approximately within 40 minutes.

In 17 patients (17%) intraoperative complication was noted, in 2 patients (2%) there was a conversion. The average number of bed days is 3.69 ± 0.25 for about 4 days. 1 patient (1%) had a mini-incision laparotomy due to acute biliary peritonitis after surgery.

Long-term results after 12 months of LHE surgery in 73 patients (82.98%) are excellent and good, in 12 patients (13.6%) it is satisfactory and in 3 patients (3.4%) is unsatisfactory. After 24 months, respectively, 79 patients (89.8%) are excellent and good, 8 patients (9.1%) are satisfactory and 1 patient (1.1%) is unsatisfactory. After 36 months, the following results were obtained: respectively, 81 patients (92.1%) were excellent and good, 7 patients (7.9%) were satisfactory, no unsatisfactory results were found.

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TREATMENT OF ECHINOCOCCOSUS OF LUNGS

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Keywords
Echinococcosis of the lungs, videotoracoscopic echinococcectomy, transmediastinal access, albendazol.

Abstract

The results of treatment of 676 patients with lung echinococcosis are presented. The methods of phased and simultaneous bilateral echinococcectomy from the lungs, from the lungs and organs of the abdominal cavity and chemotherapy with Albendazol were used. Methods for reducing traumatic operations are suggested.

Өкпе эхинококкозының емі

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Түйін сөздер
өкпе, эхинококкоз емі, эхинококэктомия

Аңдатпа

Бұл бақылауда өкпе эхинококкозымен ауыратын 676 науқас емінің нәтижелері көрсетілген. Этапты және бір уақытты екі жақты өкпе эхинококэктомиясы, құрсақ қуысының эхинококэктомиясы және альбендазолмен химиотерапия қолданылды. Ота барысындағы жарақатты төмендету жолдары көрсетілді.

Лечение эхинококкоза легких

ОБ АВТОРАХ

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Ключевые слова
эхинококкоз легких, лечение, эхинококэктомия

Аннотация

В работе представлены результаты лечения 676 пациентов с эхинококкозом легких. Использованы способы поэтапной и одномоментной двусторонней эхинококкэктомии из легких, из легких и органов брюшной полости и химиотерапия Албендозолом. Предложены способы снижения травматичности операций.

Introduction

Echinococcosis of the lungs according to the researchers takes second place, conceding the hepatic localization of the parasite [1, 2, 3]. The spread of echinococcosis in the Republic of Kazakhstan is due to the fact that it is the leading in the development of sheep breeding [4, 5, 6].

Treatment of echinococcosis to the present day remains a problem that has not been finally solved [3, 4, 7, 8, 9]. Most researchers believe that the only radical treatment for echinococcosis of all localizations is surgical. Delay with surgery in the hope of success of conservative therapy or self-healing by the death of a parasite with calcification of dead cysts can only increase the risk of complications and reduce the effectiveness of surgical intervention. At the same time, the use of antiparasitic drugs is one of the important components of the treatment of echinococcosis. In recent years, a lot of publications have appeared on the successful conservative therapy of echinococcosis, so the choice of tactics between conservative treatment and surgical intervention remains relevant [10, 11, 12]. Unfortunately, neither the accurate implementation of the operative intervention, nor the use of effective germicides, nor compliance with the rules of abstinence in the operation and the use of perfect instruments completely exclude the possibility of recurrence of the disease. Therefore, follow-up chemotherapy or anthelminthic therapy is important to influence the small size echinococcus screenings that are not available for visual detection [13, 14, 15].

Albendazol - an anthelmintic preparation of a wide spectrum of action; benzimidazole carbamate derivative. Albendazol is active against tissue parasites, including cystic echinococcosis and alveolar echinococcosis, caused by the invasion of E.granulosus and E.multilocularis, respectively. According to various authors, Albendazol destroys cysts or significantly reduces their number and size. After treatment with albendazole, the number of nonviable cysts increases to 90% compared with 10% in patients who have not received treatment [3, 16, 17]. A number of authors indicate that the use of Albendazol complete cure is observed only in a small part of patients, and in the majority there is an improvement or stabilization of the process. Multicentre studies evaluating the effectiveness of chemotherapy for echinococcosis, conducted under the auspices of WHO, have shown that the success of therapy (complete or partial) was noted in the treatment of Albendazole in 30-39% of patients, mebendazole - in 14-17% [18, 19, 20].

Currently, Albendazol is widely used to prevent relapses and treat early stages of echinococcosis, but not all patients are equally successful in chemotherapy with Albendazole, and the reasons for this are not yet clear enough.

Material and methods

This work is based on the analysis of treatment of 676 patients with lung echinococcosis, 327 (48.4%) of whom had a complicated course of the disease. Right lung was affected in 295 (43.6%) patients, left - in 286 (42.3%), in 95 (14.5%) - bilateral defeat. The combined echinococcosis of the lungs and abdominal organs was observed in 176 (26.0%) cases, while in 136 the parasite was located in the lungs and liver, 88 of them had a lesion of the right lung and liver, 36 left lung and liver, 12 - the cysts were located in both the lungs and the liver. In 40 patients, the lung disease was combined with cysts of the omentum, spleen, abdominal cavity and stuffing box.

Echinococcosis of the lungs in the early asymptomatic stage of the disease, as a rule, was detected with preventive X-ray studies. The diagnosis of lung echinococcosis was based on data:

- epidemiological history (place of residence and work);
- clinical picture;
- instrumental diagnostic methods (radiography, computed tomography and ultrasound);
- serological diagnosis (ELISA).

Antiparasitic treatment was carried out according to the standard scheme: albendazole (15 mg / kg / day with body weight less than 60 kg or 400 mg 2 times a day with a body weight of more than 60 kg) for 28 days, up to 3 courses with a two-week break.

Results

Operations for lung echinococcosis are performed under general anesthesia with artificial ventilation (IVL) with a single-lumen or double-lumen intubation tubes with separate intubation of the main bronchi. A single-lumen tube ventilates through the main bronchus a healthy lung, and after the main stage of the operation, a transfer to endotracheal ventilation is carried out [21]. Lung resection was performed in 62 (9.2%) cases: with large festering cysts occupying the volume of almost the entire lobe (two lobes) with the presence of irreversible coarse perifocal changes and fibrosis in the surrounding pulmonary tissue, as well as with giant centrally located cysts, excessive multiplicity defeat of one or two lobes.

Organ-saving operations were performed in 614 (90.8%) patients.

In the treatment of patients with bilateral echinococcal cysts of the lungs (95 patients) depending on the general condition of the patient adhered to

the tactics of phased or one-stage surgical intervention. Two-sided thoracotomy in two stages with an interval of 3-6-8 weeks was performed by 33 patients. In 4 patients, bilateral lung involvement was combined with liver and spleen involvement, after a two-sided phased thoracotomy with lung echinococcectomy, laparotomy was performed at intervals of 1-2 months.

In 23 (3.4%) cases, a one-stage bilateral thoracotomy with echinococcectomy was performed, and surgical intervention started from the side where there were cysts that were large in size or threatening complications. However, this method is quite traumatic, it can lead to respiratory failure in the early postoperative period, and the risk of developing festering surgical wounds increases. Therefore, with bilateral echinococcosis of the lungs, in which it is possible to remove Echinococcus from the opposite lung from the transmediastinal access, simultaneous bilateral echinococcectomies were performed.

With combined echinococcosis of the lungs and abdominal organs, surgical intervention should begin with lung echinococcemia, given the possibility of a high risk of complications in the lungs. In our patients, combined echinococcosis was found in 176 (26.0%), 136 of them had a combination of lung and liver cysts, 40 had cysts of the lung and other organs (stuffing bag - 22, spleen - 8, abdominal cavity - 6, large omentum - 4). 52 patients with echinococcosis of the right lung and upper segments of the right lobe of the liver simultaneously in one stage thoracotomy with diaphragmotomy and echinococcectomy of the lung and liver were performed, 84 - lung echinococcectomy, then laparotomy and echinococcectomy from the liver, 27 of them operated in one stage, the rest in two stages with an interval of 4-8 weeks. 40 patients with combined echinococcosis of the lung and abdominal organs after thoracotomy and lung echinococcectomy performed laparotomy and echinococcectomy from the omentum bag (22), abdominal cavity (6), large omentum (4) and splenectomy (8) in the second stage in 4-8 weeks.

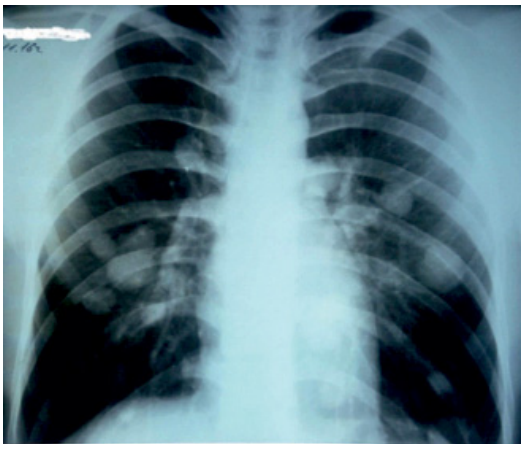

Figure 1. Patient P., 25 years old. Chest X-ray before treatment with Albendazol.

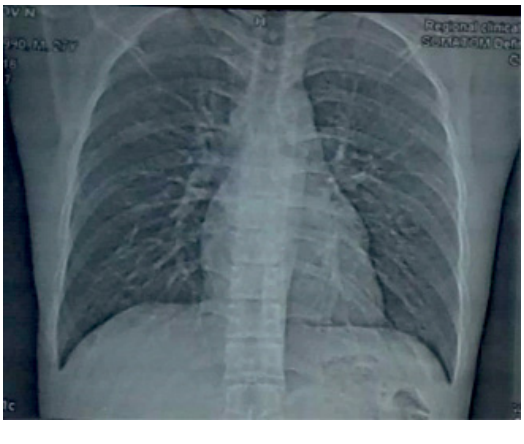

Figure 2. Patient P., 27 years old. Two years after the course of treatment with Albendazol. Screen with a computerized tomography of the chest.

In order to reduce the traumatism of the operation, to reduce the duration of the operation and the postoperative period, a two-way, one-stage sequential videotoracoscopy with echinococcectomy from both lungs was performed. Videothoracoscopy performed under general anesthesia with separate intubation of the bronchi, which allows you to turn off the ventilation of the lung on the side of the operation. The cyst is covered with napkins moistened with povidone-iodine. Through the thoracoport, a puncture tool with a tubular body is brought to the cyst and a hydatidic liquid is aspirated without removing the needle, the echinococcal cyst is treated with 70% alcohol or 10% povidone-iodine solution for 3 minutes. The fibrous capsule is opened and the chitinous membrane is removed. The cavity of the fibrous capsule is eliminated depending on the size of the application of the clips or suturing.

Carrying out videotoracoscopic echinococcectomy of the lung allowed to reduce the time of anesthetic and operational aggression, allowed to reduce the duration of the patient's stay in the hospital to 5-7 days, which is 3-5 times less than the duration of the bed-days with other procedures used for lung echinococcosis.

In the postoperative period, 30 patients underwent Albendazol courses in order to prevent relapse of echinococcosis. The average age of the patients studied was 35 years (from 18 to 67 years). The number of men and women was approximately the same - 52% and 48%.

Recurrence of lung echinococcosis in these patients during three years of observation was not noted.

In the presence of a single echinococcal cyst less than 5 cm in diameter or with bilateral multiple echinococcal cysts of the lungs, we conservatively treat Albendazol. Currently, according to the planned scheme, 5 patients with echinococcal cysts are prescribed less than 5 cm in size. Observation for more than a year in 2 patients, in oth-

ers less than one year. Drug allergies to the use of Albendazol in our patients were not noted. There was a decrease in the antibody titer in the blood of unoperated pacintes against the background of Albendazol. According to radiation diagnosis, no noticeable changes were observed.

Among the operated patients who did not take Albendazol, two had liver echinococcosis 2 years after the operation on the lungs. This, apparently, is associated with the reinfusion of echinococcosis in these patients.

In one patient P., 27 years old, with bilateral multiple echinococcosis of the lungs, conservative treatment with Albendazol gave a positive effect. Two years after the start of treatment with Albendazol without surgery, all the echinococcal cysts were killed and cough-off. On the control computer tomogram there is only a single air residual cavity in the left lung (Figures 1, 2, 3).

Conclusion

The methods of simultaneous surgical treatment of bilateral lung echinococcosis with the use of transmediastinal access and videotorakoscopic techniques allow to reduce traumatism of operations, shorten the duration of treatment, and also

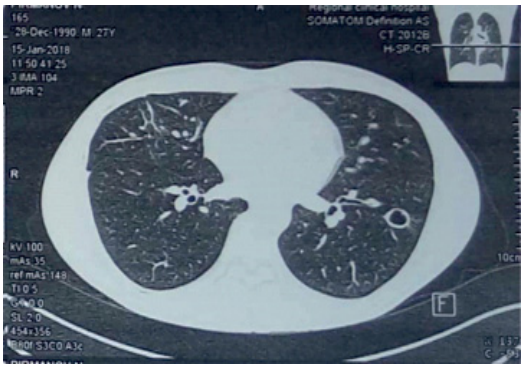

Figure 3.
Patient P., 27 years old. Two years after the course of treatment with Albendazol. In the left lung there is a residual air cavity from the dead echinococcal cyst. Screen with a computerized tomography of the chest.

relieve patients of the weary expectation of the next stage of operations and repeated anesthesia.

Preliminary data indicate the absence of allergic reactions to Albendazole when applied according to the intended scheme. The absence of relapse of echinococcosis among operated patients taking Albendazol and a decrease in antibody titer in the blood in patients taking Albendazol without surgery, indicates a positive effect of this drug.

Thus, the results of surgical treatment of echinococcosis of the lungs depend on the course of the disease (complicated or uncomplicated), on the type of access and volume of surgical intervention for combined lesions and antiparasitic treatment.

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КОНФЕРЕНЦИЯ «GASTROINTESTINAL ENDOSCOPY: NEW ERA, ALMATY 2018»

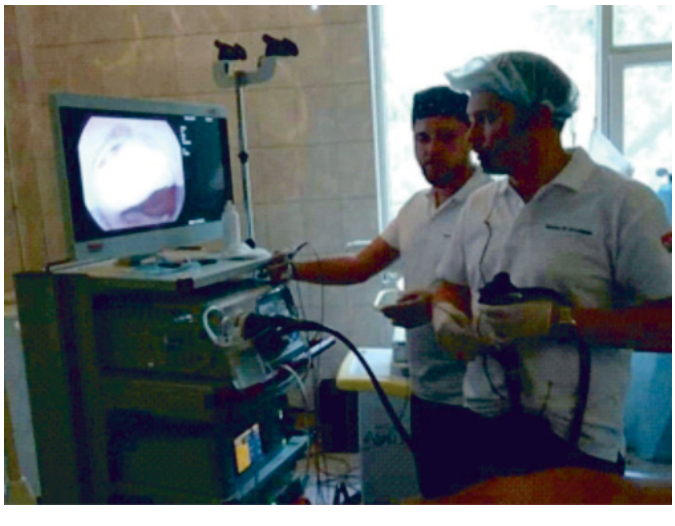
29 - 30 июня 2018 г. в АО «ННЦХ им. А.Н. Сызганова» прошла конференция по гибкой внутрипросветной эндоскопии «Gastrointestinal endoscopy: New Era, Almaty 2018».

В конференции приняли участие эксперты по оперативной эндоскопии Смирнов А.А. (г. Санкт-Петербург, Российская Федерация) и Кен Охата (г. Токио, Япония).

Внутрипросветная гибкая эндоскопия является золотым стандартом диагностики желудочно-кишечного тракта. В современном мире эндоскопия далеко вышла за рамки обычной диагностической процедуры, задавая тем самым новые стандарты в миниинвазивной хирургии. Имея в своем арсенале высокотехнологичное оборудование и инструментарии, в настоящее время возможно выполнение сложнейших операций на органах желудчно-кишечного тракта через естественные отверстия и с минимальной травмой. Стало возможным эндоскопическое лечение многих заболеваний желудочно-кишечного тракта, которые при традиционной хирургии сопровождаются высокой травматичностью и осложнениями. Все это существенно повышает качество жизни человека и минимизирует риски его инвалидизации.

Цель конференции – внедрение в практику центра внутрипросветных эндоскопических операций.

В течение двух дней выполнено 12 операций и прочитано 5 лекций. Каждый из прокторов продемонстрировал свой высокий профессионализм, уникальную технику и мастерство. Выполнялись эндоскопическая подслизистая диссекция верхнего и нижнего ЖКТ, подслизистая туннельная эндоскопическая диссекция, пероральная эндоскопическая миотомия, эндоскопическся септикотомия дивертикула Ценкера и др. Прочитаны интереснейшие лекции о технике и методах выполнения подслизистой туннельной эндоскопической резекции, туннельных диссекциях и пероральной эндоскопической миотомии.



МАСТЕР-КЛАСС НА ТЕМУ: «ТРАНСАНАЛЬНАЯ ДОППЛЕР-КОНТРОЛИРУЕМАЯ ДЕЗАРТЕРИЗАЦИЯ ГЕМОРРОИДАЛЬНЫХ УЗЛОВ С МУКОПЕКСИЕЙ С ПРИМЕНЕНИЕМ БЕСПРОВОДНОГО ДОППЛЕР-ОПЕРАЦИОННОГО КОМПЛЕКСА WI-3 HAL-RAR TRILOGY»

17 августа 2018 года в АО «Национальный научный центр хирургии им. А.Н. Сызганова» прошел мастер-класс на тему: «Трансанальная допплер-контролируемая дезартеризация геморроидальных узлов с мукопексией с применением беспроводного допплер-операционного комплекса Wi-3 HAL-RAR TRILOGY».

Для проведения мастер-класса приглашен к.м.н., хирург-проктолог высшей категории, заведующий центра амбулаторной колопроктологии ГКП на ПХВ «Городская больница №1» г. Астаны Тян Леонид Владимирович.

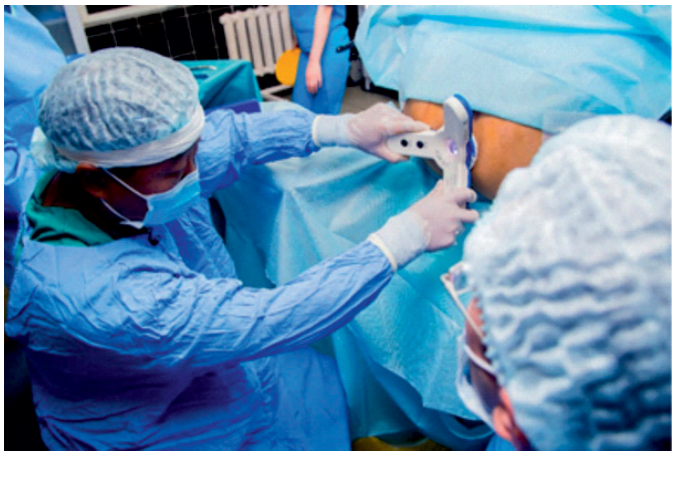
Лигирование геморроидальных артерий (HAL - hemorroidal artery ligation) и ректоанальное восстанавление (RAR - recto anal repair) - мукопексия широко распространен в странах Запада и является инновационным методом, который имеет ряд существенных преимуществ над традиционной геморроидэктомией по Миллигану-Моргану:

- операция является щадящей и малоинвазивной;
- геморроидальные узлы не удаляются, вместо это производится лигирование и лифтинг, т.е. не нарушаются слизистые ткани;
- пациент не испытывает сильных болевых ощущений;
- короткий срок реабилитации: пациенты могут вернуться к работе через 2-3 дня после операции.

HAL - Аноскоп, оборудованный доплеровским датчиком вводят в прямую кишку и на глубине 6-8 см весь комплекс вращают для поиска терминальных ветвей верхней прямокишечной артерии (геморроидальных артерий). Доплеровский сигнал из спикера указывает на местоположение, а уровень громкости на глубину и проекцию расположения геморроидальной артерии. При помощи иглодержателя, проталкивателя узлов и рассасывающего шовного материала, производят лигирование обнаруженной геморроидальной артерии.

RAR - В случае хронического геморроя 3-4-й степени с пролапсом слизистой вместе с геморроидальными узлами ниже анального кольца в последующем проводят мукопексию при помощи аноскопа путем наложения «якорного» шва с захватом мышечного слоя стенки прямой кишки на глубине 4-6 см от зубчатой линии. Далее, используя лигатуру «якорного» шва, в направлении зубчатой линии (не доходя до последней 0,5-0,8 см) с захватом слизистой накладывают непрерывный обвивной шов (от 4 до 8 стежков) на дилатированную сосудистую ткань геморроидального сплетения. Концы нити подтягивают, и собирая слизистую в складки, завязывают.

В рамках мастер-класса прооперированы 2 пациента с хроническими формами геморроя 2-3 степени с хорошим непосредственным результатом. В мастер-классе приняли участие всего 26 специалистов из регионов Казахстана (г. Алматы, Алматинская область, г. Тараз, Жамбылская область, г. Шымкент, Туркестанская область), всем выданы сертификаты участника.



МАСТЕР-КЛАСС НА ТЕМУ: «УЛЬТРАЗВУКОВАЯ ДИАГНОСТИКА ПАТОЛОГИИ СОСУДОВ НИЖНИХ КОНЕЧНОСТЕЙ»

16 июня 2018 года отделением лучевой диагностики АО «ННЦХ им. А.Н. Сызганова» согласно протокольному поручению заседания Республиканского штаба по принятию неотложных мер по снижению материнской и младенческой смертности был проведен мастер-класс на тему: «Ультразвуковая диагностика патологии сосудов нижних конечностей» с участием специалиста УЗД д.м.н., профессора Мухамеджанова Исламбека Хаджиакбаровича (МЦ УДП, г. Астана).

Программа мастер-класса состояла из двух частей - теоретической и практической.

В теоретическую часть были включены лекции по:

- УЗ анатомии и методике исследования сосудов нижних конечностей.
- эхографической картине при варикозной болезни вен и постромбофлебитическом синдроме.
- ангиосканированию заболеваний артерий нижних конечностей.
- дифференциальной диагностики отеков конечностей.
- сложным случаям при исследовании венозных сосудов.

Во время практической части слушателям демонстрировались пациенты с варикозной болезнью вен и атеросклерозом артерий нижних конечностей с оценкой-интерпретацией количественных и качественных показателей гемодинамики. Также на волонтере была показана методика исследование сосудов нижних конечностей в норме.

На мастер-классе присутствовали 30 слушателей-врачей ультразвуковой диагностики городских больниц г. Алматы, Алматинской, Кызылординской и Акмолинской областей.

По завершению мастер-класса слушатели получили сертификаты, а особо активным профессор вручил монографию «Ультразвуковое ангиосканирование вен нижних конечностей».

УЧАСТИЕ В 18TH WORLD GASTROENTEROLOGIST SUMMIT, Г. ОКЛЕНД, НОВАЯ ЗЕЛАНДИЯ

С 07 по 08 сентября 2018 года в городе Окленд (Новая Зеландия) прошел 18th World Gastroenterologist Summit, в работе которого приняла участие врач-педиатр, младший научный сотрудник отделения торакальной и детской хирургии ННЦХ им. А.Н. Сызганова Еримова Назира Жолдыбаевна. Она сделала устный доклад на тему: «Наш опыт профилактики и лечения цитомегаловирусной инфекции у детей до- и после пересадки печени».

В рамках конференции был организован workshop на тему: «Actual problems of gastroenterology and hepatology», в ходе которого обсуждались вопросы особенностей иммунной системы и иммунного ответа на различные антигены у детей после трансплантации печени.

Тематика обсуждаемых вопросов на конференции: лекарства и заболевания желудочно-кишечного тракта, эндоскопия желудочно-кишечного тракта; педиатрическая гастроневрология, рефлюксная болезнь пищевода, язва желудка, эндо УЗИ, желудочно-кишечные кровотечения, желчный панкреатит, желудочно-кишечная иммунология, гастроинтестинальная онкология, синдром раздраженной толстой кишки, цирроз печени, желудочно-кишечная хирургия, аноректальные расстройства и нейрогастроэнтерология.

В 18 th World Gastroenterologist Summit принял более 300 участников из 50 стран.

В рамках конференции осуществлялся обмен опытом и обсуждение актуальных вопросов в сфере детской гастроэнтерологии, гепатологии и трансплантологии.

Наш опыт подтверждает роль цитомегаловирусной (ЦМВ) инфекции в развитии билиарной атрезии с формированием цирроза печени и требует адекватного наблюдения после трансплантации печени.

На сегодня единственным методом лечения ЦМВ инфекции и ЦМВ заболевания являются противовирусные препараты как валганцикловир, ганцикловир, иммуноглобулин против ЦМВ. В случаях неэффективности монотерапии можно комбинировать противовирусный препарат с иммуноглобулином против ЦМВ.

При резистентной форме ЦМВ препаратом выбора является фоскарнет. При развитии угрожающей лейкопении при одновременном назначении микофенолатов, валганцикловира и ко-тримоксазола коррекцию доз или отмену препарата следует провести индивидуально с учетом соотношения рисков отторжения и развития инфекционных осложнений.

ТРЕБОВАНИЯ ДЛЯ АВТОРОВ ЖУРНАЛА «ВЕСТНИК ХИРУРГИИ КАЗАХСТАНА»

Уважаемые авторы!

С 1 апреля 2018 года все статьи на публикацию принимаются на государственном или русском языках с обязательным переводом всей статьи на английский язык. Статьи без версии на английском языке будут отклонены.

Также учитывая требования Консультативной Комиссией (CSAB) Scopus об интернационализации авторов и аудитории редколлегия журналов рекомендуют публиковать статьи в соавторстве с учеными дальнего и ближнего зарубежья.

В журнале публикуются научные статьи и заметки, экспресс-сообщения о результатах исследований в различных областях естественно-технических и общественных наук.

Решение о публикации принимается редакционной коллегией журнала после рецензирования, учитывая научную значимость и актуальность представленных материалов. Статьи, отклоненные редакционной коллегией, повторно не принимаются и не рассматриваются. Рукописи, оформленные не по правилам, возвращаются авторам без рассмотрения.

Рукопись направляется на отзыв члену редколлегии и одному из указанных рецензентов; в спорных случаях по усмотрению редколлегии привлекаются дополнительные рецензенты; на основании экспертных заключений редколлегия определяет дальнейшую судьбу рукописи: принятие к публикации в представленном виде, необходимость доработки или отклонение. В случае необходимости рукопись направляется авторам на доработку по замечаниям рецензентов и редакторов, после чего она повторно рецензируется, и редколлегия вновь решает вопрос о приемлемости рукописи для публикации. Переработанная рукопись должная быть возвращена в редакцию в течение месяца после получения авторами отзывов; в противном случае рукопись рассматривается как вновь поступившая. Рукопись, получившая недостаточно высокие оценки при рецензировании, отклоняется как не соответствующая уровню или профилю публикаций журнала.

Авторы несут ответственность за достоверность и значимость научных результатов и актуальность научного содержания работ. Не допускается **ПЛАГИАТ** – умышленно совершаемое физическим лицом незаконное использование чужого творческого труда, с доведением до других лиц ложных сведений о себе как о действительном авторе.

Редакция принимает на рассмотрение рукописи на казахском, русском и английском языках, присланные через официальный сайт журнала **www.vhk.kz.**

Материал статьи – текст, включая резюме на казахском, русском и английском языках, список литературы, рисунки, подписи к рисункам и таблицы, оформляется одним файлом; дополнительно каждый рисунок оформляется в виде отдельного файла. Если пересылаемый материал велик по объему, следует использовать программы для архивирования. Все страницы рукописи, в том числе таблицы, список литературы, рисунки и подписи к ним, следует пронумеровать.

Представленные для опубликования материалы должны удовлетворять следующим требованиям:

1. Содержать результаты оригинальных научных исследований по актуальным проблемам в области физики, математики, механики, информатики, биологии, медицины, геологии, химии, экологии, общественных и гуманитарных наук, ранее не опубликованные и не предназначенные к публикации в других изданиях. Статья сопровождается разрешением на опубликование от учреждения, в котором выполнено исследование.
2. Размер статьи 7-10 страниц (статьи обзорного характера – 15-20 стр.), включая аннотацию в начале статьи перед основным текстом, которая должна отражать цель работы, метод или методологию проведения работы, результаты работы, область применения результатов, выводы (**аннотация** не менее **20** предложений (150»300 слов) - (на английском языке) через 1 компьютерный интервал), таблицы, рисунки, список литературы (через 1 компьютерный интервал, размер шрифта – 14), напечатанных в редакторе Word, шрифтом Times New Roman, поля – верхнее и нижнее – 2 см, левое –3 см, правое –1,5 см. Количество рисунков – 5-10.

Структура должна соответствовать международной формуле IMRAD, где I – introduction (вступление), M – Methods (методы), R – Results (исследование), A – и, D – conclusion+ discussion (заключение, обсуждение результатов и выводы).

Название • Отображает суть работы • Краткое • Без аббревиатур.

Необходимо официально закрепить название организации на английском и сокращение

Резюме • Структурировано • Без аббревиатур • Передает структуру статьи – Зачем (актуальность) – Какими методами? – Что получено – Как это изменило картину знаний. Именно его читают в первую очередь, только хорошее резюме может привлечь внимание!

Вступление • Актуальность работы • Какая задача поставлена • Почему

Методы • Перечисление • Если известные - дать ссылку • Если модифицировали – указать как • Описывать так что б могли повторить • Статистика!

Результаты • Допускается не хронологическое, а логическое повествование • Основные, а не все что были сделаны •

Иллюстрируются минимально необходимыми сводными данными (исходные могут быть в дополнительных материалах)

Обсуждения • Не повторять результаты • Сопоставить полученные данные с имеющимися • Обсудить возможные причины и следствия

Функции списка литературы: • Аргументировать идею • Сопоставить с существующими аналогами • Обозначить место данного исследования • Избежать плагиата • Для журнала и ученого = признание • Часто указаны только собственные работы или очень старые (самоцитирование допускается только 10-15% от общего списка литературы) • Кочующие ошибки

Различайте • Ссылки • Список литературы • Библиография

Что могут цитировать • Книги, (монографии, главы) • Статьи научных журналов • Материалы конференций • Патенты • Диссертации • Неопубликованные данные • СМИ • Веб ресурсы (протоколы, веб странички) Источник должен быть надежным и легко доступным.

Статья начинается на английском языке. В начале, посередине страницы, идет название статьи прописными жирными буквами, название статьи должно быть коротким и емким, согласно проведенного анализа около 30-40 символов на английском языке.

Далее на следующей строчке – инициалы и фамилии авторов обычным жирным шрифтом, затем на следующей строчке – название организации(ий), в которой выполнена работа, город, страна, затем на новой строчке – адреса E-mail авторов. С красной строки идут ключевые слова **(Key words),** а на новой строчке – сама аннотация (**Abstract** – не менее **150** и более **300 слов**).

Далее, после отбивки одной строки, начинается на русском языке. В начале статьи вверху слева следует указать индекс **УДК, МРНТИ.**

Затем, посередине страницы, пишется: 1) название статьи; 2) авторы; 3) название организации; с красной строки – **Ключевые слова,** затем – **Аннотация** (оформление шрифтов, как на английском языке).

Отбиваем одну строку и начинается сама **статья.** Следом за статьей идет список **Литературы.** Ссылки на литературные источники даются цифрами в прямых скобках по мере упоминания (не менее 20).

Для каждой статьи обязателен DOI (Digital Object Identifier) - это цифровой идентификатор документа. DOI выполняет функцию гиперссылки, которая всегда помогает найти нужный документ, даже если сайт, где он находился ранее, был впоследствии изменен. Благодаря этому индексу поиск научной информации в Интернете стал проще и эффективнее. Каждое издание, журнал размещает на своих веб-страницах в интернете, как текущие, так и архивные номера, и материалы. Таким образом, в открытом доступе можно увидеть резюме, которые включают в себя название статьи, фамилию, имя, отчество автора, аннотацию и ключевые слова, место выполнения работы, а также выходные данные опубликованных статей (название журнала, год издания, том, номер, страница).

Список литературы оформляется следующим образом:

В ссылках на книги указывается ISBN (10- или 13-значный). Сокращаются названия только тех журналов, которые указаны: http://images.webofknowledge.com/WOK46/help/WOS/0-9_abrvjt.html.

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Статья в международном журнале:

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Статья в русскоязычном журнале, не имеющая англоязычной версии:

2. Ivanova TV, Samoilova NF (2009) Electrochemical Energetics [Elektrohimicheskaya energetika] 9:188-189. (In Russian)

Книги:

Timrat TA (2008) Soil pollution: origins, monitoring and remediation, second edition. Springer, Germany. ISBN: 978-3-540-70777-6

Материалы конференции:

Monin S.A. (2012) Treatment techniques of oil-contaminated soil and water aquifers. Proceedings of International Conference on Water Resources and Arid Environment, Riyadh, Saudi Arabia. P.123.

Патенты:

Barin AB, Mukamedzhan NT (2000) A method for determination of 1,1-dimethylhydrazine and nitrosodimethylamine [Metodopredeleniya 1,1-dimetilgidrazina initrosodimetilamina]. Preliminary Patent of the Republic of Kazakhstan [Predvaritelnyi patent Respubliki Kazakhstan]. (In Russian)

Стандарты, ГОСТы:

RMG 61-2003. Indexes of accuracy, precision, validity of the methods of quantitative chemical analysis, methods of evaluation [GSI.Pokazatelitochnosti, pravilnosti, retsizionnosti metodik kolichestvennogo himicheskogo analiza. Metodyiotsenki]. Moscow, Russia, 2003. (In Russian)

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