

GEORGIAN MEDICAL NEWS

ISSN 1512-0112

NO 7-8 (352-353) Июль-Август 2024

ТБИЛИСИ - NEW YORK



ЕЖЕМЕСЯЧНЫЙ НАУЧНЫЙ ЖУРНАЛ

Медицинские новости Грузии
საქართველოს სამედიცინო სიახლენი

GEORGIAN MEDICAL NEWS

Monthly Georgia-US joint scientific journal published both in electronic and paper formats of the Agency of Medical Information of the Georgian Association of Business Press.
Published since 1994. Distributed in NIS, EU and USA.

GMN: Georgian Medical News is peer-reviewed, published monthly journal committed to promoting the science and art of medicine and the betterment of public health, published by the GMN Editorial Board since 1994. GMN carries original scientific articles on medicine, biology and pharmacy, which are of experimental, theoretical and practical character; publishes original research, reviews, commentaries, editorials, essays, medical news, and correspondence in English and Russian.

GMN is indexed in MEDLINE, SCOPUS, PubMed and VINITI Russian Academy of Sciences. The full text content is available through EBSCO databases.

GMN: Медицинские новости Грузии - ежемесячный рецензируемый научный журнал, издаётся Редакционной коллегией с 1994 года на русском и английском языках в целях поддержки медицинской науки и улучшения здравоохранения. В журнале публикуются оригинальные научные статьи в области медицины, биологии и фармации, статьи обзорного характера, научные сообщения, новости медицины и здравоохранения. Журнал индексируется в MEDLINE, отражён в базе данных SCOPUS, PubMed и ВИНТИ РАН. Полнотекстовые статьи журнала доступны через БД EBSCO.

GMN: Georgian Medical News – საქართველოს სამედიცინო სიახლენი – არის ყოველთვიური სამეცნიერო სამედიცინო რეცენზირებადი ჟურნალი, გამოიცემა 1994 წლიდან, წარმოადგენს სარედაქციო კოლეგიისა და აშშ-ის მეცნიერების, განათლების, ინდუსტრიის, ხელოვნებისა და ბუნებისმეტყველების საერთაშორისო აკადემიის ერთობლივ გამოცემას. GMN-ში რუსულ და ინგლისურ ენებზე ქვეყნდება ექსპერიმენტული, თეორიული და პრაქტიკული ხასიათის ორიგინალური სამეცნიერო სტატიები მედიცინის, ბიოლოგიისა და ფარმაციის სფეროში, მიმოხილვითი ხასიათის სტატიები.

ჟურნალი ინდექსირებულია MEDLINE-ის საერთაშორისო სისტემაში, ასახულია SCOPUS-ის, PubMed-ის და ВИНТИ РАН-ის მონაცემთა ბაზებში. სტატიების სრული ტექსტი ხელმისაწვდომია EBSCO-ს მონაცემთა ბაზებიდან.

WEBSITE

www.geomednews.com

К СВЕДЕНИЮ АВТОРОВ!

При направлении статьи в редакцию необходимо соблюдать следующие правила:

1. Статья должна быть представлена в двух экземплярах, на русском или английском языках, напечатанная через **полтора интервала на одной стороне стандартного листа с шириной левого поля в три сантиметра**. Используемый компьютерный шрифт для текста на русском и английском языках - **Times New Roman (Кириллица)**, для текста на грузинском языке следует использовать **AcadNusx**. Размер шрифта - **12**. К рукописи, напечатанной на компьютере, должен быть приложен CD со статьей.

2. Размер статьи должен быть не менее десяти и не более двадцати страниц машинописи, включая указатель литературы и резюме на английском, русском и грузинском языках.

3. В статье должны быть освещены актуальность данного материала, методы и результаты исследования и их обсуждение.

При представлении в печать научных экспериментальных работ авторы должны указывать вид и количество экспериментальных животных, применявшиеся методы обезболивания и усыпления (в ходе острых опытов).

4. К статье должны быть приложены краткое (на полстраницы) резюме на английском, русском и грузинском языках (включающее следующие разделы: цель исследования, материал и методы, результаты и заключение) и список ключевых слов (key words).

5. Таблицы необходимо представлять в печатной форме. Фотокопии не принимаются. **Все цифровые, итоговые и процентные данные в таблицах должны соответствовать таковым в тексте статьи**. Таблицы и графики должны быть озаглавлены.

6. Фотографии должны быть контрастными, фотокопии с рентгенограмм - в позитивном изображении. Рисунки, чертежи и диаграммы следует озаглавить, пронумеровать и вставить в соответствующее место текста **в tiff формате**.

В подписях к микрофотографиям следует указывать степень увеличения через окуляр или объектив и метод окраски или импрегнации срезов.

7. Фамилии отечественных авторов приводятся в оригинальной транскрипции.

8. При оформлении и направлении статей в журнал МНГ просим авторов соблюдать правила, изложенные в «Единых требованиях к рукописям, представляемым в биомедицинские журналы», принятых Международным комитетом редакторов медицинских журналов - <http://www.spinesurgery.ru/files/publish.pdf> и http://www.nlm.nih.gov/bsd/uniform_requirements.html В конце каждой оригинальной статьи приводится библиографический список. В список литературы включаются все материалы, на которые имеются ссылки в тексте. Список составляется в алфавитном порядке и нумеруется. Литературный источник приводится на языке оригинала. В списке литературы сначала приводятся работы, написанные знаками грузинского алфавита, затем кириллицей и латиницей. Ссылки на цитируемые работы в тексте статьи даются в квадратных скобках в виде номера, соответствующего номеру данной работы в списке литературы. Большинство цитированных источников должны быть за последние 5-7 лет.

9. Для получения права на публикацию статья должна иметь от руководителя работы или учреждения визу и сопроводительное отношение, написанные или напечатанные на бланке и заверенные подписью и печатью.

10. В конце статьи должны быть подписи всех авторов, полностью приведены их фамилии, имена и отчества, указаны служебный и домашний номера телефонов и адреса или иные координаты. Количество авторов (соавторов) не должно превышать пяти человек.

11. Редакция оставляет за собой право сокращать и исправлять статьи. Корректур авторам не высылаются, вся работа и сверка проводится по авторскому оригиналу.

12. Недопустимо направление в редакцию работ, представленных к печати в иных издательствах или опубликованных в других изданиях.

При нарушении указанных правил статьи не рассматриваются.

REQUIREMENTS

Please note, materials submitted to the Editorial Office Staff are supposed to meet the following requirements:

1. Articles must be provided with a double copy, in English or Russian languages and typed or computer-printed on a single side of standard typing paper, with the left margin of 3 centimeters width, and 1.5 spacing between the lines, typeface - **Times New Roman (Cyrillic)**, print size - 12 (referring to Georgian and Russian materials). With computer-printed texts please enclose a CD carrying the same file titled with Latin symbols.

2. Size of the article, including index and resume in English, Russian and Georgian languages must be at least 10 pages and not exceed the limit of 20 pages of typed or computer-printed text.

3. Submitted material must include a coverage of a topical subject, research methods, results, and review.

Authors of the scientific-research works must indicate the number of experimental biological species drawn in, list the employed methods of anesthetization and soporific means used during acute tests.

4. Articles must have a short (half page) abstract in English, Russian and Georgian (including the following sections: aim of study, material and methods, results and conclusions) and a list of key words.

5. Tables must be presented in an original typed or computer-printed form, instead of a photocopied version. **Numbers, totals, percentile data on the tables must coincide with those in the texts of the articles.** Tables and graphs must be headed.

6. Photographs are required to be contrasted and must be submitted with doubles. Please number each photograph with a pencil on its back, indicate author's name, title of the article (short version), and mark out its top and bottom parts. Drawings must be accurate, drafts and diagrams drawn in Indian ink (or black ink). Photocopies of the X-ray photographs must be presented in a positive image in **tiff format**.

Accurately numbered subtitles for each illustration must be listed on a separate sheet of paper. In the subtitles for the microphotographs please indicate the ocular and objective lens magnification power, method of coloring or impregnation of the microscopic sections (preparations).

7. Please indicate last names, first and middle initials of the native authors, present names and initials of the foreign authors in the transcription of the original language, enclose in parenthesis corresponding number under which the author is listed in the reference materials.

8. Please follow guidance offered to authors by The International Committee of Medical Journal Editors guidance in its Uniform Requirements for Manuscripts Submitted to Biomedical Journals publication available online at: http://www.nlm.nih.gov/bsd/uniform_requirements.html
http://www.icmje.org/urm_full.pdf

In GMN style for each work cited in the text, a bibliographic reference is given, and this is located at the end of the article under the title "References". All references cited in the text must be listed. The list of references should be arranged alphabetically and then numbered. References are numbered in the text [numbers in square brackets] and in the reference list and numbers are repeated throughout the text as needed. The bibliographic description is given in the language of publication (citations in Georgian script are followed by Cyrillic and Latin).

9. To obtain the rights of publication articles must be accompanied by a visa from the project instructor or the establishment, where the work has been performed, and a reference letter, both written or typed on a special signed form, certified by a stamp or a seal.

10. Articles must be signed by all of the authors at the end, and they must be provided with a list of full names, office and home phone numbers and addresses or other non-office locations where the authors could be reached. The number of the authors (co-authors) must not exceed the limit of 5 people.

11. Editorial Staff reserves the rights to cut down in size and correct the articles. Proof-sheets are not sent out to the authors. The entire editorial and collation work is performed according to the author's original text.

12. Sending in the works that have already been assigned to the press by other Editorial Staffs or have been printed by other publishers is not permissible.

**Articles that Fail to Meet the Aforementioned
Requirements are not Assigned to be Reviewed.**

ავტორთა საქურაღებოლ!

რედაქციაში სტატიის წარმოდგენისას საჭიროა დაიცვათ შემდეგი წესები:

1. სტატია უნდა წარმოადგინოთ 2 ცალად, რუსულ ან ინგლისურ ენებზე დაბეჭდილი სტანდარტული ფურცლის 1 გვერდზე, 3 სმ სიგანის მარცხენა ველისა და სტრიქონებს შორის 1,5 ინტერვალის დაცვით. გამოყენებული კომპიუტერული შრიფტი რუსულ და ინგლისურენოვან ტექსტებში - **Times New Roman (Кириллица)**, ხოლო ქართულენოვან ტექსტში საჭიროა გამოვიყენოთ **AcadNusx**. შრიფტის ზომა – 12. სტატიას თან უნდა ახლდეს CD სტატიით.

2. სტატიის მოცულობა არ უნდა შეადგენდეს 10 გვერდზე ნაკლებს და 20 გვერდზე მეტს ლიტერატურის სიის და რეზიუმეების (ინგლისურ, რუსულ და ქართულ ენებზე) ჩათვლით.

3. სტატიაში საჭიროა გაშუქდეს: საკითხის აქტუალობა; კვლევის მიზანი; საკვლევი მასალა და გამოყენებული მეთოდები; მიღებული შედეგები და მათი განსჯა. ექსპერიმენტული ხასიათის სტატიების წარმოდგენისას ავტორებმა უნდა მიუთითონ საექსპერიმენტო ცხოველების სახეობა და რაოდენობა; გაუტკივარებისა და დაძინების მეთოდები (მწვავე ცდების პირობებში).

4. სტატიას თან უნდა ახლდეს რეზიუმე ინგლისურ, რუსულ და ქართულ ენებზე არანაკლებ ნახევარი გვერდის მოცულობისა (სათაურის, ავტორების, დაწესებულების მითითებით და უნდა შეიცავდეს შემდეგ განყოფილებებს: მიზანი, მასალა და მეთოდები, შედეგები და დასკვნები; ტექსტუალური ნაწილი არ უნდა იყოს 15 სტრიქონზე ნაკლები) და საკვანძო სიტყვების ჩამონათვალი (key words).

5. ცხრილები საჭიროა წარმოადგინოთ ნაბეჭდი სახით. ყველა ციფრული, შემაჯამებელი და პროცენტული მონაცემები უნდა შეესაბამებოდეს ტექსტში მოყვანილს.

6. ფოტოსურათები უნდა იყოს კონტრასტული; სურათები, ნახაზები, დიაგრამები - დასათაურებული, დანომრილი და სათანადო ადგილას ჩასმული. რენტგენოგრაფიების ფოტოასლები წარმოადგინეთ პოზიტიური გამოსახულებით **tiff** ფორმატში. მიკროფოტოსურათების წარწერებში საჭიროა მიუთითოთ ოკულარის ან ობიექტივის საშუალებით გადიდების ხარისხი, ანათალების შედეგების ან იმპრეგნაციის მეთოდი და აღნიშნოთ სურათის ზედა და ქვედა ნაწილები.

7. სამამულო ავტორების გვარები სტატიაში აღინიშნება ინიციალების თანდართვით, უცხოურისა – უცხოური ტრანსკრიპციით.

8. სტატიას თან უნდა ახლდეს ავტორის მიერ გამოყენებული სამამულო და უცხოური შრომების ბიბლიოგრაფიული სია (ბოლო 5-8 წლის სიღრმით). ანბანური წყობით წარმოდგენილ ბიბლიოგრაფიულ სიაში მიუთითეთ ჯერ სამამულო, შემდეგ უცხოელი ავტორები (გვარი, ინიციალები, სტატიის სათაური, ჟურნალის დასახელება, გამოცემის ადგილი, წელი, ჟურნალის №, პირველი და ბოლო გვერდები). მონოგრაფიის შემთხვევაში მიუთითეთ გამოცემის წელი, ადგილი და გვერდების საერთო რაოდენობა. ტექსტში კვადრატულ ფხიხლებში უნდა მიუთითოთ ავტორის შესაბამისი N ლიტერატურის სიის მიხედვით. მიზანშეწონილია, რომ ციტირებული წყაროების უმეტესი ნაწილი იყოს 5-6 წლის სიღრმის.

9. სტატიას თან უნდა ახლდეს: ა) დაწესებულების ან სამეცნიერო ხელმძღვანელის წარდგინება, დამოწმებული ხელმოწერითა და ბეჭდით; ბ) დარგის სპეციალისტის დამოწმებული რეცენზია, რომელშიც მითითებული იქნება საკითხის აქტუალობა, მასალის საკმაობა, მეთოდის სანდოობა, შედეგების სამეცნიერო-პრაქტიკული მნიშვნელობა.

10. სტატიის ბოლოს საჭიროა ყველა ავტორის ხელმოწერა, რომელთა რაოდენობა არ უნდა აღემატებოდეს 5-ს.

11. რედაქცია იტოვებს უფლებას შეასწოროს სტატია. ტექსტზე მუშაობა და შეჯერება ხდება საავტორო ორიგინალის მიხედვით.

12. დაუშვებელია რედაქციაში ისეთი სტატიის წარდგენა, რომელიც დასაბეჭდად წარდგენილი იყო სხვა რედაქციაში ან გამოქვეყნებული იყო სხვა გამოცემებში.

აღნიშნული წესების დარღვევის შემთხვევაში სტატიები არ განიხილება.

Yevchuk YuI, Rozhko MM, Pantus AV, Yarmoshuk IR, Pantus PV. ANALYSIS OF THE CLINICAL EFFECTIVENESS OF USING THE CREATED COMBINED FIBRIN-BONE SCAFFOLD FOR THE RECONSTRUCTION OF BONE TISSUE DEFECTS OF THE JAWS.....	6-13
Anton Yu. Postnov, Tatiana V. Kirichenko, Yuliya V. Markina, Petr V. Chumachenko, Andrey V. Suslov, Alexandra G. Ivanova, Eduard R. Charchyan, Alexander M. Markin. INFLAMMATORY FACTORS IN DISSECTION OF THORACIC AORTIC ANEURYSM.....	14-17
Gohar Arajyan, Qristine Navoyan, Nvard Pahutyanyan, Hovhannes Hunanyan, Anahit Pogosyan, Hrachik Gasparyan. COMPREHENSIVE STUDY OF ANTIOXIDANT ACTIVITY OF OXALIC ACID DIAMIDE DERIVATIVES AND THEIR EFFECT ON THE CONCENTRATION OF MALONIC DIALDEHYDE IN THE BRAIN AND LIVER TISSUES OF WHITE RATS.....	18-23
Nino Abesadze, Jenaro Kristesashvili, Arsen Gvenetadze. LOW 25OHD IN ENDOMETRIOSIS- RISK FACTOR OR CONSEQUENCE?!.....	24-31
Stepanyan L, Lalayan G. STRESS RESILIENCE AND DECISION-MAKING UNDER PRESSURE: ENHANCING ATHLETIC PERFORMANCE IN COMPETITIVE SPORTS.....	32-37
Hasan M. Abed, Abdulameer M. Hussein, Sabah N. Jaber. ENDOVASCULAR INTERVENTIONS: A NEW INSIGHTS AND CLINICAL PRACTICE.....	38-46
Changsheng He, Jian Liu, Linhai Xu, Fanhua Sun, Yan Wang, Jia Lou. THE RELATIONSHIP BETWEEN SERUM INFLAMMATORY CYTOKINES AND HYPERLIPIDEMIC ACUTE PANCREATITIS.....	47-49
Artemov O.V, Lytvynenko M.V, Chumachenko I.V, Bondarenko A.V, Dotsenko N.V, Ostapchuk K.V, Koshelnyk O.L, Gargin V.V. THE INFLUENCE OF THE DEMODEX MITE ON THE MORPHOLOGICAL PICTURE OF EYELID PAPILOMA.....	50-54
Othman K.M. Al-Sawaf, Mahmoud AM Fakhri. CHARACTERIZATION OF SERUM SERINE PROTEASE BIOCHEMICAL PROFILE IN PATIENTS WITH RENAL FAILURE.....	55-58
Sergey Lee, Marat Assimov, Yuriy Ignatiev, Fatima Bagiyarova, Gulbanu Absatarova, Aizhan Kudaibergenova, Sholpan Mardanova, Tatyana Tsapenko, Baimakhan Tanabayev, Assel Ibrayeva, Anel Ibrayeva, Ildar Fakhradiyev. PREVALENCE AND FACTORS OF PROFESSIONAL BURNOUT AMONG PRIMARY HEALTHCARE WORKERS IN THE REPUBLIC OF KAZAKHSTAN: RESULTS OF A NATIONAL STUDY.....	59-68
I.A. Yusubov. RESULTS OF PERCUTANEOUS TREATMENT OF LIMITED FLUID FORMATIONS AFTER ABDOMINAL SURGERY.....	69-74
Nawar M. Abd-alaziz, Ammar L. Hussein, Mohammed M Abdul-Aziz. STUDY THE RELATIONSHIP BETWEEN OSTEOPROTEGERIN AND KIDNEY INJURY MOLECULE-1 AND SOME BIOCHEMICAL VARIABLES IN PATIENTS WITH KIDNEY STONES.....	75-78
Tsisana Giorgadze, Tinatin Gognadze. SUBSTRATE SPECIFICITY OF β -GLUCOSIDASE FROM <i>YUCCA GLORIOSA</i> LEAVES.....	79-82
Sheishenov Zhalil, Kemelbekov Kanatzhan, Joshibaev Seitkhan, Turtabaev Baglan, Zhunissov Bakhytzhani. COMPARATIVE ANALYSIS OF THE CLINICAL RESULTS OF PATIENTS WITH ASD OPERATED VIA RIGHT ANTERIOR MINITHORACOTOMY AND MEDIAN STERNOTOMY.....	83-88
Sosonna L, Ohurtsov O, Piriatska N, Vdovitchenko V, Seleznova R, Kolba O, Gryzodub D, Rozhkova O, Shevtsov O. INDIVIDUAL ANATOMICAL VARIABILITY OF THE SKULL'S FACIAL SECTION CONSIDERING GENDER AND CRANIOTYPE BASED ON COMPUTED TOMOGRAPHY DATA.....	89-95
Osminina M.K, Aslamazova A.E, Podchernyaeva N.S, Khachatryan L.G, Velikoretskaya M.D, Chebysheva S.N, Polyanskaya A.V. SYSTEMIC OR LIMITED IS HEMISCLERODERMA OF FACE IN A PERSON WITH UVEITIS? EXPERIENCE OF 10 CASES OF UVEITIS IN HEMISCLERODERMA OF FACE FROM ONE RHEUMATOLOGY CENTER.....	96-100
F.T. Khalilova, A.A. Kerimov. CLINICAL AND LABORATORY CHARACTERISTICS OF THE LATENT FORM OF POLYCYTHEMIA VERA.....	101-105
Ahlan S. Ibrahim, Sukayna H. Rashed. ISOLATION AND PURIFICATION OF TRANSGLUTAMINASE 1 USING BIOCHEMICAL TECHNIQUES.....	106-111
Tingting Li, Xu Zhang, Baohong Xue, Lianping He, Qiaoqiao Chen, Dexun Zhao. THE RELATIONSHIP BETWEEN MENTAL HEALTH AND PHYSICAL ACTIVITY AMONG STUDENTS FROM A PRIVATE UNIVERSITY: A CROSS-SECTION STUDY.....	112-117
Narkhojayev Nurgali, Turmetov Ibadulla, Kemelbekov Kanatzhan, Bektayev Erkebai, Akhmetov Almasbek, Zhunissov Bakhytzhani. RESULTS OF SURGICAL TREATMENT OF PECTUS EXCAVATUM IN CHILDREN AND ADOLESCENTS.....	118-122

Krushelnyska HL, Batryn OV, Ryzhenko LM, Lytvyn NA, Dobrianska NV, Lyga AI. INFORMATION FACTORS OF MEDIA INFLUENCE ON THE FORMATION OF STATE POLICY IN THE FIELD OF LEGAL REGULATION OF BIOMEDICAL TECHNOLOGIES.....	123-129
Vahe Ashot Ter-Minasyan. EVALUATION OF KNOWLEDGE AND ATTITUDE REGARDING CERVICAL CANCER SCREENING PRACTICE: A MULTICENTER REGIONAL STUDY.....	130-136
Muhsin S.G. Almozic'1, Abbas A. Khudhair, Falah Hassan Shari. REMEDIAL INTERVENTION OF FERTILITY AGENT AND GENE 35 ON INDUCED CYSTIC OVARY IN RATS.....	137-141
Rongzheng Yuan, Hui Wang, Jing Chen. THE EFFECT OF LOW MOLECULAR WEIGHT HEPARIN SODIUM IN THE TREATMENT OF ACUTE EXACERBATION OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE COMORBID WITH PULMONARY HEART DISEASE ON PROMOTING THE BALANCE OF BLOOD VESSELS.....	142-146
Arailym Maikenova, Alexander Nersesov, Elmira Kuantay, Mukhtar Kulimbet, Massimo Giuseppe Colombo, Chavdar Pavlov, Yerkezhan Yerlanova. EVALUATION OF PREDICTORS OF INEFFECTIVENESS OF ANTIVIRAL THERAPY FOR CHRONIC HEPATITIS C IN THE REPUBLIC OF KAZAKHSTAN: A MATCHED CASE-CONTROL STUDY.....	147-154
Ahmed N. Ali, Muna A. Kashmoola. EVALUATION OF PROTEIN C AND S IN β -THALASSEMIA MAJOR.....	155-160
Sh.Tsiklauri, N.Nakudashvili, M.Lomaia. EFFECT OF INTRANASAL ELECTROPHORESIS WITH 5% POTASSIUM IODATE SOLUTION ON CLINICAL OUTCOME OF PATIENTS WITH HYPERTROPHIC RHINITIS.....	161-164
Fang Xu, Zhijuan Xu, Ming Li. INTRAVITREAL INJECTION CONBERCEPT IMPROVES THE BEST-CORRECTED VISUAL ACUITY IN PATIENTS WITH WET AGE- RELATED MACULAR EDEMA.....	165-167
Lilit Darbinyan, Margarita Danielyan, Vergine Chavushyan, Karen Simonyan, Michael Babakhanyan, Lilia Hambardzumyan, Larisa Manukyan, Kristine Karapetyan, Lusya Hovhannisyan. THE PROTECTIVE EFFECTS OF SELENIUM-ENRICHED HYDROPONIC RADISH ON PARACETAMOL-INDUCED LIVER DAMAGE IN RATS.....	168-172
Grygorova A.O, Grygorov S.M, Yaroslavska Yu.Yu, Mykhailenko N.M, Demyanyk D.S, Steblianko A.O, Rak O.V, Voloshan O.O, Nazaryan R.S. SIGNS OF ORAL CAVITY MICROCIRCULATORY DISORDERS IN ADOLESCENTS WHO SMOKE.....	173-177
Ali H. Kadhim, Nihad N. Hilal, Taghreed AH. Nassir. A COMPARATIVE STUDY ON THE VARIABLE EFFECTS OF ALCOHOL AND NON-ALCOHOL-RELATED FATTY LIVER DISEASE ON METABOLIC AND INFLAMMATORY BIOMARKERS.....	178-182
Papoyan Varduhi, Galstyan Alina, Sargsyan Diana. FACTOR ANALYSIS OF THE COMPETENCIES OF PERSONAL RESOURCES OF SPECIALIST.....	183-189
Chulpanov Utkir, Turdaliyeva Botagoz, Buleshov Myrzatai, Zhanabaev Nurlan, Kanatzhan Kemelbekov. COMPARATIVE EVALUATION OF THE EFFECTIVENESS OF INNOVATIVE HIGH-TECH CARDIAC SURGERY IN PATIENTS WHO HAVE SUFFERED AN ACUTE MYOCARDIAL INFARCTION.....	190-195
Tea Charkviani, Jenara Kristasashvili, Tamar Barbakadze, Mariam Gabadze, Tamar Kbilashvili, Mariam Makharadze. THE RELATIONSHIP BETWEEN FOLLICLE SIZE, OOCYTE MATURATION, BLASTOCYST FORMATION, BLASTOCYST PLOIDY, AND PREGNANCY OUTCOMES IN YOUNG WOMEN UNDERGOING IVF.....	196-203
Yunfei Wu, Koulong Wu, Tianhua Du. STUDY ON THE EFFECTS OF ART PAINTING COMBINED WITH SPORTS ON MYOPIA PREVENTION AND VISION IMPROVEMENT.....	204-207
Lulëjeta Ferizi-Shabani, Shefqet Mrasori, Valbona Ferizi, Gonxhe Barku, Milazim Gjocaj, Blerim Krasniqi, Basri Lenjani. EVALUATION OF DENTAL AND PERIODONTAL STATUS IN CHILDREN WITH TYPE 1 DIABETES MELLITUS.....	208-212
Rana Dawood Salman Al-kamil, Mustafa Ragheb Abed, Sanaryh Mohammed Al-awad, H. N. K. AL-Salman, Hussein H. Hussein, Dawood Chaloob Hilyail, Falah Hassan Shari. ISOLATION, CHARACTERIZATION, AND ANTIHYPERTENSIVE ACTIVITY ALKALOIDS EXTRACTED FROM THE LEAVES OF THE ALSTONIA SCHOLARIS PLANT.....	213-217
Tchernev G, Broshtilova V, Kordeva S. SHARK PEDICLE ISLAND FLAP FOR BASAL CELL CARCINOMA OF THE PERIALAR ZONE OF THE NOSE: PHOTOTOXICITY AND PHOTOCARCINOGENICITY MEDIATED BY POTENTIALLY NITROSAMINE CONTAMINATED DRUG INTAKE -A NEW EXPLANATION FOR THE SKIN CANCERS PATHOGENESIS?	218-222

Meruert T. Orazgalieva, Meyrbek J. Aimagambetov, Zhanna D. Bryzhakhina, Serik D. Zhanybekov, Ainash S. Orazalina. RISK FACTORS FOR THE DEVELOPMENT OF COAGULOPATHY DURING SURGERY IN MECHANICAL JAUNDICE.....	223-228
Noor N. Noori, Nawal A. Murtafha. UNCONTROLLED TYPE 2 DIABETES MELLITUS MODULATED PLASMA LEVELS OF LIPID CATABOLIC PROTEINS.....	229-233
Ling-Ling Zhou, Zhou-Zhou Lin, Lian-Ping He. PREVALENCE OF DEPRESSION AMONG UNIVERSITY STUDENTS IN CHINA: A PROTOCOL FOR A SYSTEMATIC REVIEW AND META-ANALYSIS.....	234-236
Nadine Khayyat, Sima Kalalfeh, Suha Khalifa. OPTIMISING THE CLINICAL ASSESSMENT OF CHILDHOOD AND ADOLESCENT OBESITY IN JORDAN.....	237-241
Shuasheva Y.A, Buleshov M.A, Kemelbekov K.S. CLINICAL, IMMUNOLOGICAL AND THESIOGRAPHIC CHARACTERISTICS RHEUMA-TOID ARTHRITIS AND CHRONIC RHEUMATICHEARTDISEASE.....	242-248
Sana A. Abdulmawjood, Eman S. Mahmoud, Rana T Altaee. ASSESSMENT OF CIPROFLOXACIN EFFECTS ON SOME CHICKS' ORGANS: A COMPREHENSIVE BIOCHEMICAL AND HISTOLOGICALSTUDY.....	249-254
Knarik V. Kazaryan, Naira G. Hunanyan, Margarita H. Danielyan, Rosa G. Chibukchyan, Yulia Y. Trofimova, Arus V. Mkrtychyan, Kristine V. Karapetyan, Karwan H. Syan, Tatevik A. Piliposyan. REGULATION OF SPONTANEOUS ELECTRICAL ACTIVITY IN THE ORGANS OF RE-PRODUCTIVE SYSTEM BY OXYTOCIN.....	255-259
Lantukh I.V, Kucheriavchenko V.V, Yurko K.V, Bondarenko A.V, Merkulova N.F, Mohylenets O.I, Gradil G.I, Bondar O.Ye, Bodnia I.P, Burma Ya.I, Tsyko O.V, Tkachenko V.G. PSYCHOLOGICAL FEATURES OF REHABILITATION OF HIV-INFECTED PATIENTS.....	260-264
Serikbayeva Saltanat, Shaimerdenova Gulbanu, Ormanov Namazbai, Ormanov Talgat, Abuova Gulzhan, Kaishibayeva Gulnaz, Kemelbekov Kanatzhan. PEROXIDATION OF SALIVA LIPIDS IN PATIENTS WITH POSTCOVID SYNDROME DURING HIRUDOTHERAPY.....	265-269
M.V. Poghosyan, H.Y. Stepanyan, Avetisyan Z.A, J.S. Sarkissian. THE EFFECTS OF HYDROCORTISONE ON SYNAPTIC PROCESSES IN PARKINSON'S DISEASE UNDERLYING THE POTENTIAL THERAPEUTICSTRATEGIES.....	270-277
Changsheng He, Jian Liu, Linhai Xu, Fanhua Sun. THE EFFECT OF PERCUTANEOUS CATHETER DRAINAGE COMBINED WITH SOMATOSTATIN ON INFLAMMATION AND PLASMA THROMBOXANE 2, PROSTACYCLIN I2 LEVELS IN PATIENTS WITH SEVERE PANCREATITIS.....	278-283
Tea Chitadze, Nino Sharashidze, Tamar Rukhadze, Nino Lomia, Giorgi Saatashvili. EVALUATION OF LEFT VENTRICULAR SYSTOLIC FUNCTION IN POSTMENOPAUSAL WOMEN WITH BREAST CANCER RECEIVING ADJUVANT ANTHRACYCLINE AND TRASTUZUMAB THERAPY: A 2-YEAR FOLLOW-UP STUDY.....	284-293

RESULTS OF SURGICAL TREATMENT OF PECTUS EXCAVATUM IN CHILDREN AND ADOLESCENTS

Narkhojyev Nurgali^{1,2}, Turmetov Ibadulla², Kemelbekov Kanatzhan¹, Bektayev Erkebai¹, Akhmetov Almasbek², Zhunissof Bakhytzhan².

¹South Kazakhstan Medical Academy, Shymkent, Kazakhstan.

²Akhmet Yassawi International Kazakh-Turkish University, Turkestan, Kazakhstan.

Abstract.

Introduction: Congenital pectus excavatum (PE) takes the first place among the deformation of the chest, accompanied by violations of the cardiorespiratory system and various cosmetic defects. A radical way to eliminate the deformation of the chest is surgical correction-thoracoplasty.

Material and methods: This study was performed on the results of surgical treatment of 183 patients with various forms of PE at the age of 3 to 18 years. All operated children were divided into three groups. The first group consisted of 76 (41.5%) patients who underwent thoracoplasty with fixation of the mobilized sternal-rib complex on an external traction splint. The second group included 77 (42,1%) patients operated by the developed method of thoracoplasty. The third group of 30 (16.4%) patients operated on the classical Nuss-method. Short- and long-term results were compared between the groups.

Results: The operation time was significantly shorter in third group (55 min) and the volume of blood loss was higher in the first group (46,4±12,5 ml). Pleural effusion and atelectasis were observed 4 and 3 patients and atelectasis, or pneumonitis was observed 3 and 2 patients in first and third groups respectively. The duration of postoperative pain syndrome was significantly shorter in second group with intercostal blockade. Pneumothorax was established 4 and 3 patients in first and third groups. Partial relapse and complete relapse were observed 3 (4.1%) and 2 (2.7%) patients in the first group.

Conclusion: Short and long-term results were excellent for modified thoracoplasty and Nuss procedures with low complication rates.

Key words. Pectus excavatum, sternum, surgical treatment, long-term results.

Introduction.

Congenital pectus excavatum (PE) takes the first place among the deformation of the chest, accompanied by violations of the cardiorespiratory system and various cosmetic defects [1-4].

A radical way to eliminate the deformation of the chest is surgical correction-thoracoplasty. Of the many methods of thoracoplasty of funnel-shaped deformation of the chest, currently the most widespread are minimally invasive methods based on the plastic properties of the sterno costal complex using special plates for stabilization [5-7]. One of the terrible complications is damage to the intercostal vessels and pericardium with the development of bleeding. In adolescents older than 15 years, there are fractures of the sternum and plate migration [7]. To prevent secondary changes in the spine and the development of psycho-emotional disorders in adolescents, surgical treatment of all types of chest deformities is recommended to begin as

early as possible [8-12]. With this study, we wanted to share the short- and long-term results of patients who were operated with 3 different methods due to PE deformity in different time periods.

The aim of this study is to review the surgical experiences with pectus excavatum (PE) deformities.

Materials and Methods.

This study was based on the results of surgical treatments for 183 patients with various PE deformities aged 3 to 18 years old. They were operated in the Department of Orthopedics and Traumatology of the Regional Children's Clinical Hospital of the Health Department of Turkestan region from 1997 to 2018 and in the Department of Traumatology of Shymkent City Children's Hospital №1 from 2016 to 2018. All operated children were divided into three groups. The first group consisted of 76 (41.5%) patients who underwent Ravitch thoracoplasty with fixation of the mobilized sternal-rib complex on an external traction tire from 1997 to 2008.

The second group included 77(42.1%) patients operated from 2008 to 2018 by the modified method of thoracoplasty (Eurasian patent No. 028328 of 30.11.2017). The third group consisted of 30 (16.4%) patients operated on the classical Nuss method from 2016 to 2018 inclusive.

Clinical examination of children was carried out according to the generally accepted scheme. The degree of deformation in Pectus excavatum was determined by the sternal depression on the lateral projection of the chest x-ray, in severe forms of deformation, the Haller index was used based on the results of computed tomography. Indications for surgical correction of pectus excavatum were, Haller index of 3.25 or more, as well as gross violations of the function of the cardiorespiratory system [13,14].

In the first group, a traditional Ravitch operation was performed with the fixation of the sternocostal complex on the external traction tire of the Marshev. Before applying a traction tire to the chest, a pre-made plaster frame is applied in the shape of the chest, with a window formed according to the boundaries of the deformation. The traction tire was placed on a plaster frame in order to evenly distribute the transmitted load on the chest outside the zone of resected rib cartilage and sternum. Marshev's traction tire was removed after 30-45 days, depending on the age.

In the second group used a modified thoracoplasty consisting in resection of the rib cartilage from the outer edge of the deformation from the parasternal chondrotomy, the sternum was correction "T" shaped on level III intercostal interval by the front transverse wedge-shaped sternotomy with break rear cortical plate of the sternum is mobilized Sterno-costal complex

is stabilized by osteosynthesis of the body of the sternum in the bony part of the rib with a resorption suture material, beyond the mobilized sternocostal complex. Depending on the age and degree of deformation, one or two needles were used in parallel to each other. The needles were removed after 12-18 months.

In the third group, the correction of PE deformity was performed using the classic Nuss technique using thoracoscopy and consisted of a C-shaped bar with support on the transverse plates on both sides along the anterior axillary line. Postoperative thoracic catheter not used. The bar was removed after 24 months.

Surgical intervention in all groups was performed under intubation anesthesia with minimal trauma and hemostasis. The children stayed in the intensive care unit first day, they received a full volume of infusion and antibacterial therapy, as well as narcotic analgesics. On the second day, the children were transferred to the Department of traumatology and orthopedics, they treated for pain relief and prevention of pulmonary complications. They were allowed to sit for 2-3 days and move independently for 5-6 days. The most important point in the postoperative period is the improvement of pulmonary ventilation, and the relief of pain. For this purpose, the developed modified thoracoplasty performed intercostal Novocain blockade of resected costal cartilage along the middle axillary line on both sides. This made it possible to reduce the use of narcotic and non-narcotic analgesics in comparison with patients who were not blockaded. Thus, children who were blockaded received analgesics only in the intensive care unit, and those children who were not blockaded continued to receive analgesics for 3 days after thoracoplasty. An epidural catheter for pain relief was not used, only an intravenous analgesic in the intensive care unit.

Short time results (up to 10 days) were evaluated according to the following criteria: duration of the operation, volume of blood loss, duration of pain, wound seroma, pleural effusion, atelectasis or pneumonitis, pneumothorax requiring pleural puncture.

Long-term results (up to 2 years) were evaluated according to the following criteria: migration of metal structures with pain requiring removal, keloid scar with ligature fistulas, partial relapse, complete relapse, and lethal outcome. The outcomes were classified as excellent (complete resolution of the deformity), good (close to complete correction), fair (partial correction of the deformity), poor (any recurrence or residual deformity), or slight overcorrection [15]. Prior to surgery, all parents signed an informed consent form for the operation.

Statistical Analyses.

Statistical analyses were performed using SPSS software (version 24; SPSS; Chicago, Illinois, United States). Student's t-test was used to assess the validity of the differences. At $p < 0.05$, the differences were considered statistically significant. Ethics statement. Written informed consents were obtained from the patients for publication of this article.

Results.

The study was consisting of 124 (67.8%) male and 59 (32.2%) girls. Patients were between 3-5 years old 51 (27.9%), 6-8 years old 56 (30.6%), 9-11 years old 44 (24%) and 12 years old 32 (17.5%). Asymmetric form 92 (50.3%), symmetrical form 76 (41.5%) and flat-funnel form 15 (8.2%) were detected in the patients with PE. There was no difference between groups in terms of age and gender distribution.

Short time postoperative results were observed in all patients in the study groups. The operation time is significantly shorter when using the classic Nuss technique (55 min), and the volume of blood loss is greater when using Ravitch thoracoplasty ($46,4 \pm 12,5$ ml) due to procedure of the method. Pleural effusion and atelectasis were observed 4 and 3 patients and atelectasis, or pneumonitis was observed 3 and 2 patients in first and third groups respectively but $p > 0.05$ Table 1.

The duration of postoperative pain syndrome is only less when using modified thoracoplasty, which is associated with intercostal blockade of resected costal cartilages ($p < 0.05$). Pneumothorax (requiring pleural puncture) developed in 4 (5.2%) patients after Ravitch thoracoplasty ($p < 0.05$).

Table 1. Short and long-term results of treatment groups in the study.

	Ravitch thoracoplasty	Modified thoracoplasty	Nuss procedure	p
Number of patients	76	77	30	-
Average age of patients (years)	7,3± 1,4	8,5±2,3	9,8±2,5	>0,05
The duration of hospital stay (days)	8±2,2	7±1,1	7±1,4	>0,05
Duration of surgery (min)	96±8,6	75±8,9	55±5,8	<0,05
Volume of blood loss, ml	46,4±12,5	30,43±9,6	21,2±5,3	>0,05
Duration of pain syndrome (day)	5,2±1,3	2,1±0,7	5,32±1,5	<0,05
Wound seroma	2(2,6%)	-	-	>0,05
Pleural effusion	4	-	3	<0,05
Atelectasis or pneumonitis	3	-	2	>0,05
Pneumothorax	4(5,2%)	-	3(10%)	<0,05
Keloid scar of an operating wound with suture fistulas	7(9,2%)	3(3,9%)	-	<0,05
Cosmetic results - excellent	56(73.5%)	73(94.8%)	28(93.3%)	<0.05
-Good	16(21.0%)	3(3.9%)	2 (6.7%)	
-poor	5(6.5%),	1(1.3%)		
Migration of metal structures	-	-	1(3,3%)	
Relapse (%) - partial	3(4,1%)	1(1,3%)	1(3,3%)	<0,05
- complete	2(2,7%)	-	-	

Keloid scar with suture fistulas was found in 7(9.2%) cases in the first group, and 3 (3.9%) cases in the second group. The formation of ligature fistulas is not related to the surgical technique that can be avoided by using a resorption suture material (vicryl). Migration of the metal structure requiring its removal was observed in 1 (3,3%) patient in the third group.

Partial relapse was characterized by the transition of the third degree of deformation and complete relapse were observed 3(4.1%) and 2 (2.7%) patients in the first group ($p<0.05$). Partial relapse was observed in one patient in the second and third groups, whereas complete relapse did not develop in this groups. The main cause of relapses is a gross violation of the mode in the deformation of the needles in the second group, the third group this was in strong pain behind the sternum, which served to remove the last 8 months. The best cosmetic result was observed in the second group (modified thoracoplasty) and third group (Nuss method), respectively ($p<0.05$).

Discussion.

Ravitch technique, which has been applied since the 1950s, has revolutionized PE deformity with its minimal morbidity and good cosmetic results [16]. The Nuss method, which has been applied since 1998, has been an alternative to open standard treatment with less morbidity and scar results [17]. The modified thoracoplasty method in this study is an alternative method for PE. Proposed to our method of thoracoplasty, which consists in osteosynthesis "T"-shaped osteotomies sternum Ilizarov needle technical simple to implement, requires no special metal for stabilization of the sternum-costal complex, complications like bleeding, hemopneumothorax, migration of metal is not observed in 94.8% of cases, there is a good result that can be recommended for surgical treatment of congenital PE deformation. While patients in the Ravitch and Nuss group needed more narcotic analgesic for pain, less pain medication was needed in the modified thoracoplasty group.

In the study of Molik et al. compared the Ravitch method ($n = 68$) and Nuss ($n = 35$) method. The epidural catheter was inserted for pain control 25 patients in the Nuss group, but the catheter was used only 3 patients in the open method. In addition, for postoperative pain management, patient controlled intravenous analgesic (PCA) device was used in the open surgery group in half of the patients and almost all (except 4 cases) in Nuss group [18]. In this study, postoperative pain management was best done in the second group. Novocain blockade of resected rib cartilage along the middle axillary line on both sides reduces the duration of the pain syndrome and reduces the use of narcotic and non-narcotic analgesics in the postoperative period in comparison with patients who did not undergo blockages.

There is similarly length of stay times in this work, when other studies have lessing time in the Nuss group. Even this stay time is twice the literature [19]. The reason for more hospitalization of patients is hospital stay is economically inexpensive in our country and the distance of the patients from the hospital. Overall, the postoperative complications were higher in the first group. Postoperative atelectasis and pneumonia were not detected in second group. It may also be considered to better the pain control.

Cosmetic is the most important reason for surgery and postoperative long-term success indicator. An excellent cosmetic results in the literature is between 75 %- to 95% 15,19,20. Given the excellent results in this study, the most successful groups were the second (94.8%) and third groups (87.5%), respectively. In Gibreel et al. 75% excellent results and 12% good results were obtained in Nuss series including 313 patients, while the same results were found above 95% and 3% in another series of 406 cases from Shu et al. Study [15,20,21]. More than 97% good and excellent results were obtained in 375 patients for open surgery [21]. Relapse and poor results were dominantly seen in the Ravitch group. Although the reoperation rate of the series was between 0.75% and 11.6%, this rate decreases over the years [19,22,23]. Reoperation rate was found 1.1% in this study.

Conclusion.

Proposed to us the method of thoracoplasty, which consists in osteosynthesis "T"-shaped osteotomies sternum Ilizarov needle technical simple to implement, requires no special metal for stabilization of the sternum-costal complex, complications like bleeding, hemopneumothorax, migration of metal is not observed in 94.8% of cases, there is a good result that can be recommended for surgical treatment of PE deformation. Short and long-term results were excellent for modified thoracoplasty and Nuss procedures with low complication rates. Novocain blockade of resected rib cartilage reduces the duration of the pain syndrome and reduces the use of narcotic and non-narcotic analgesics.

REFERENCES

1. Lollert A, Emrich T, Eichstädt J, et al. Differences in myocardial strain between pectus excavatum patients and healthy subjects assessed by cardiac MRI: a pilot study. *Eur Radiol.* 2018;28:1276-1284.
2. Silbiger J, Parikh A. Pectus excavatum: echocardiographic, pathophysiologic, and surgical insights. *Echocardiography.* 2016;33:1239-1244.
3. Abid I, Ewais MM, Marranca J, et al. Pectus Excavatum: A Review of Diagnosis and Current Treatment Options. *J Am Osteopath Assoc.* 2017;117:106-113.
4. Tomaszewski R, Wiktor Ł, Machała L. Evaluation of thoracic vertebrae rotation in patients with pectus excavatum. *Acta Orthop Traumatol Turc.* 2017;51:284-289.
5. Mao Y, Tang S, Li S. Comparison of the Nuss versus Ravitch procedure for pectus excavatum repair: an updated meta-analysis. *J Pediatr Surg.* 2017;52:1545-152.
6. Beltsios ET, Mitsos SL, Panagiotopoulos NT. Pectus excavatum and scoliosis: a review about the patients surgical management. *Gen Thorac Cardiovasc Surg.* 2020;68:1225-1233.
7. Stalmakhovich V, Dudenkov V, Dyukov A. Treatment of funnel chest in children. *Pediatric traumatology, orthopaedics and reconstructive surgery.* 2017;5:17-25.
8. Luo L, Xu B, Wang X, et al. Intervention of the Nuss Procedure on the Mental Health of Pectus Excavatum Patients. *Ann Thorac Cardiovasc Surg.* 2017;23:175-180.

9. Fibla J, Molins L. Minimally invasive treatment of pectus excavatum. *Minerva Chir.* 2016;71:38-45.
10. Obermeyer R, Cohen N, Jaroszewski D. The physiologic impact of pectus excavatum repair. *Semin Pediatr Surg.* 2018;27:127-132.
11. Bahadır AT, Bektaşoğlu PK, Eser AÇ, et al. Psychosocial functioning in pediatric patients with pectus excavatum and pectus carinatum. *Turk J Med Sci.* 2017;47:771-717.
12. Narkhodzhaev N, Turmetov I, Karabekov A. Surgical treatment of pectus carinatum in children. *Khirurgiia (Mosk).* 2018;5:81-86.
13. Haller J, Kramer S, Lietman A. Use of CT scans in selection of patients for pectus excavatum surgery: a preliminary report. *Journal Pediatric Surgery.* 1987;22:904-6.
14. Gürkan U, Aydemir B, Aksoy S, et al. Echocardiographic assessment of right ventricular function before and after surgery in patients with pectus excavatum and right ventricular compression. *Thorac Cardiovasc Surg.* 2014;62:231-5.
15. Gibreel W, Zendejas B, Joyce D, et al. Minimally Invasive Repairs of Pectus Excavatum: Surgical Outcomes, Quality of Life, and Predictors of Reoperation. *J Am Coll Surg.* 2016;222:245-252.
16. Ravitch M. The operative treatment of pectus excavatum. *Ann Surg.* 1949;129:429-444.
17. Nuss D, Kelly R. Jr, Croitoru D, et al. A 10-year review of a minimally invasive technique for the correction of pectus excavatum. *J Pediatr Surg.* 1998;33:545-352.
18. Molik K, Engum S, Rescorla F, et al. Pectus excavatum repair: experience with standard and minimal invasive techniques. *J Pediatr Surg.* 2001;36:324-328.
19. Kauffman J, Benzie A, Snyder C, et al. Short-term Outcomes After Pectus Excavatum Repair in Adults and Children. *J Surg Res.* 2019;244:231-240.
20. Kabbaj R, Burnier M, Kohler R, et al. Minimally invasive repair of pectus excavatum using the Nuss technique in children and adolescents: indications, outcomes, and limitations. *Orthop Traumatol Surg Res.* 2014;100:625-630.
21. Shu Q, Shi Z, Xu W, et al. Experience in minimally invasive Nuss operation for 406 children with pectus excavatum. *World J Pediatr.* 2011;7:257-261.
22. Fonkalsrud E, Dunn J, Atkinson J. Repair of pectus excavatum deformities: 30 years of experience with 375 patients. *Ann Surg.* 2000;231:443-448.
23. Hu T, Li Y, Liu W, et al. Surgical treatment of pectus excavatum: 30 years 398 patients of experiences. *J Pediatr Surg.* 2008;43:1270-1274.

РЕЗЮМЕ

РЕЗУЛЬТАТЫ ХИРУРГИЧЕСКОГО ЛЕЧЕНИЯ ДЕФОРМАЦИИ ГРУДНОЙ КЛЕТКИ У ДЕТЕЙ И ПОДРОСТКОВ

Нарходжаев Нургали^{1,2}, Турметов Ибадулла², Кемельбеков Канатжан^{1*}, Бектаев Еркебай¹, Ахметов Алмасбек², Zhunissov Bakhytzhан²

¹Южно-казахстанская медицинская академия, Казахстан, Шымкент.

²Международный казахско-турецкий университет имени Ахмет Ясави, Казахстан, Туркестан

Врожденная деформация грудная клетка (ВДГК) занимает первое место среди деформаций грудной клетки, сопровождающихся нарушениями работы кардиореспираторной системы и различными косметическими дефектами. Радикальным способом устранения деформации грудной клетки является хирургическая коррекция -торакопластика.

Материалы и методы: Данное исследование было проведено по результатам хирургического лечения 183 пациентов с различными формами ТЭЛА в возрасте от 3 до 18 лет. Все прооперированные дети были разделены на три группы. Первую группу составили 76 (41,5%) пациентов, которым была выполнена торакопластика с фиксацией мобилизованного грудинно-реберного комплекса наружной тракционной шиной. Во вторую группу вошли 77 (42,1%) пациентов, оперированных по разработанному методу торакопластики. В третью группу вошли 30 (16,4%) пациентов, оперированных по классическому методу Nuss. Было проведено сравнение краткосрочных и отдаленных результатов между группами.

Результаты: Время операции было значительно короче в третьей группе (55 мин), а объем кровопотери был выше в первой группе (46,4±12,5 мл). Плевральный выпот и ателектаз наблюдались у 4 и 3 пациентов, ателектаз или пневмонит - у 3 и 2 пациентов в первой и третьей группах соответственно. Продолжительность послеоперационного болевого синдрома была значительно короче во второй группе с межреберной блокадой. Пневмоторакс был установлен у 4 и 3 пациентов в первой и третьей группах. Частичный рецидив и полный рецидив наблюдались у 3 (4,1%) и 2 (2,7%) пациентов в первой группе.

Вывод: Краткосрочные и долгосрочные результаты были превосходными при проведении модифицированной торакопластики и процедур Nuss с низким уровнем осложнений.

Ключевые слова: врожденная деформация, грудина, хирургическое лечение, отдаленные результаты.

რეზიუმე

მკერდის გათხრები -ის ქირურგიული მკურნალობის შედეგები ზავშვებსა და მოზარდებში

Narkhojavev Nurgali^{1,2}, Turmetov Ibadulla², Kemelbekov Kanatzhan¹, Bektayev Erkebai¹, Akhmetov Almasbek², Zhunissov Bakhytzhan².

¹სამხრეთ ყაზახეთის სამედიცინო აკადემია, შიმკენტი, ყაზახეთი.

²ახმეტ იასავის საერთაშორისო ყაზახურ-თურქული უნივერსიტეტი, თურქეთი, ყაზახეთი.

გულმკერდის დეფორმაციას შორის პირველ ადგილს იკავებს თანდაყოლილი pectus excavatum (PE), რომელსაც თან ახლავს კარდიორესპირაციული სისტემის დარღვევები და სხვადასხვა კოსმეტიკური დეფექტები. გულმკერდის დეფორმაციის აღმოსაფხვრელად რადიკალური გზაა ქირურგიული კორექცია-თორაკოპლასტიკა.

მასალა და მეთოდები: ეს კვლევა ჩატარდა 183 პაციენტის ქირურგიული მკურნალობის შედეგებზე

PE-ს სხვადასხვა ფორმით 3-დან 18 წლამდე ასაკში. ყველა ბავშვი სამ ჯგუფად იყოფა. პირველი ჯგუფი შედგებოდა 76 (41.5%) პაციენტისგან, რომლებსაც ჩატარდათ თორაკოპლასტიკა მობილიზებული სტერნალ-ნეკნის კომპლექსის ფიქსაციით გარე წვევის ნამსხვრევზე. მეორე ჯგუფში შედიოდა თორაკოპლასტიკის შემუშავებული მეთოდით ოპერირებული 77 (42,1%) პაციენტი. 30 (16.4%) პაციენტის მესამე ჯგუფი ოპერირებდა კლასიკური Nuss მეთოდით. ჯგუფებს შორის შედარებული იყო მოკლევადიანი და გრძელვადიანი შედეგები.

შედეგები: ოპერაციის დრო მნიშვნელოვნად მოკლე იყო მესამე ჯგუფში (55 წთ) და სისხლის დაკარგვის მოცულობა უფრო მაღალი იყო პირველ ჯგუფში (46,4±12,5 მლ). პლევრის გამონაჟონი და ატელექტაზი დაფიქსირდა 4 და 3 პაციენტი და ატელექტაზი ან

პნევმონიტი დაფიქსირდა 3 და 2 პაციენტი შესაბამისად პირველ და მესამე ჯგუფებში. პოსტოპერაციული ტკივილის სინდრომის ხანგრძლივობა მნიშვნელოვნად მოკლე იყო მეორე ჯგუფში ნეკნთაშუა ბლოკადით. პნევმოთორაქსი შეიქმნა 4 და 3 patients პირველ და მესამე ჯგუფებში. ნაწილობრივი რეციდივი და სრული რეციდივი დაფიქსირდა 3 (4.1%) და 2 (2.7%) პაციენტი პირველ ჯგუფში.

დასკვნა: მოკლე და გრძელვადიანი შედეგები შესანიშნავი იყო მოდიფიცირებული თორაკოპლასტიკისა და Nuss პროცედურებისთვის დაბალი გართულების მაჩვენებლებით.

საკვანძო სიტყვები: გულმკერდის დეფორმაცია, მკერდის ძვალი, ქირურგიული მკურნალობა, გრძელვადიანი შედეგები.