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ЕЖЕМЕСЯЧНЫЙ НАУЧНЫЙ ЖУРНАЛ

Медицинские новости Грузии

საქართველოს სამედიცინო სიახლენი

GEORGIAN MEDICAL NEWS

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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 ВИНИТИ 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 ВИНИТИ 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. Корректура авторам не высылается, 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 compu-ter-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 საყურადღებოდ!

რედაქციაში სტატიის წარმოდგენისას საჭიროა დავიცვათ 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. რენტგენოგრამების ფოტოასლები წარმოადგინეთ პოზიტიური გამოსახულებით **tiff** ფორმატში. მიკროფოტოსურათების წარწერებში საჭიროა მიუთითოთ ოკულარის ან ობიექტივის საშუალებით გადიდების ხარისხი, ანათალების შეღებვის 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 ფჩხილებში 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.

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COMPARISON QUALITY OF LIFE BETWEEN THORACOSCOPIC SURGERY AND TRADITIONAL SURGERY IN THE TREATMENT OF CONGENITAL DIPHRAGMAL HERNIA IN NEWBORNS

Huseynov Fuad Rafig[1]*, Gasimov Azer Shimid[2]

[1]Department of general and plastic surgery, Azerbaijan state advanced training institute for doctors named after A. Aliyev, Baku.

[2]Department of Surgical Diseases – III, Azerbaijan Medical University, Baku.

Abstract.

The aim of the study was to study the effectiveness of surgical treatment using a new minimally invasive thoracoscopic surgical technique in newborns with diaphragmatic hernia based on questionnaire demand. The study included 70 newborns with pathology. Depending on the method of surgical intervention, the children were divided into 2 groups. The 1st group consisted of 44 newborns with congenital diaphragmatic hernia, operated on using the traditional open method. The 2nd main group consisted of 26 newborns with similar pathology, operated using a minimally invasive new type of surgical technique - endosurgery. Before and after the operation, both the parent and the doctor filled out a questionnaire based on the QUALIN questionnaire. According to the results of the questionnaire, an improvement in all indicators in the postoperative period was noted in the main and control groups. Also, in the main group, all parameters were high according to both parents and doctors. However, statistical reliability was achieved for the parameters "Ability to live independently" and "Neurological and mental development". This also shows that the surgical treatment of diaphragmatic hernia in newborns that we proposed leads to a rapid improvement in the general condition of children and an intensification of the healing process, thereby bringing further development closer to normal indicators.

Key words. Newborns, diaphragmatic hernia, thoracoscopic surgery, quality of life, QUALIN.

Introduction.

A diaphragmatic hernia is defined as a defect in the diaphragm in which abdominal organs protrude into the chest cavity. In most cases, it is a congenital diaphragmatic hernia (CDH), which interferes with the normal development of the lungs, while acquired diaphragmatic hernias are most often of traumatic origin [1-3]. According to the European Epidemiological Investigations into Congenital Anomalies, the reported incidence of CDH in 2019 among all pregnancy outcomes starting at 20 weeks was 3.11 per 10,000 and 2.15 per 10,000 live births. Research focuses on neonatal CDH cases as it is one of the most challenging conditions to treat surgically [4,5]. The growth of the fetal lungs depends on the degree of herniation of the abdominal organs, which, against the background of pulmonary hypoplasia and abnormal branching of the pulmonary vessels, can lead to hypoxia and the development of persistent pulmonary hypotension in sick newborns. In approximately 70% of neonates with congenital diaphragmatic hernias, the diagnosis is made using antenatal morphological ultrasound screening [6-8].

Newborns with CDH require surgical correction of the defect to ensure optimal expansion and development of the lungs and which requires significant intensive care and long-term hospitalization [9-11]. In modern medicine, the study of the quality of life of children has become one of the priority areas. The relevance of this problem in pediatrics is beyond doubt, since the health of a child is one of the fundamental factors of public health in general and is a reliable indicator that responds to processes occurring in the social, socio-economic and political life of the country. Information about the parameters of the child's quality of life can be valuable not only for pediatricians, psychologists and other specialists, but also for parents [12-14].

The relevance of studying the quality of life in pediatrics is beyond doubt, since the health of a child is one of the fundamental factors in the quality of life of the population [15,16]. Quality of life has been conceptualized and studied in children for several decades, but with disparate approaches that have rarely been discussed in conjunction with their application to children in general. Here, we describe and critically review three main approaches to pediatric quality of life [17,18]. There is growing interest in validating pediatric preferences based on HRQOL measurement instruments. It is critical that children with varying degrees of HRQOL impact be included in validation studies [19-22].

It is especially relevant to study the consequences of serious diseases that have a negative impact on the child's physical condition, emotional sphere, social activity, cognitive functioning, which manifests itself in various types of disorders over a long period of time.

The aim of the study.

Comparative study in the effectiveness of thoracoscopic and open approaches in newborns with diaphragmatic hernias based on the assessment of the quality of life.

Materials and Methods.

The study included 70 newborns with diaphragmatic hernias. Depending on the method of surgical intervention, the children were divided into 2 groups. The 1st group consisted of 44 newborns with congenital diaphragmatic hernia, operated on using the traditional method. The 2nd main group consisted of 26 newborns with similar pathology, operated on using a minimally invasive surgical technique - thoracoscopic repair. Concomitant malformations, weight and height of newborns, assessment of the condition according to the Apgar scale at the 1st and 5th minutes were analyzed. In the first control group of patients, preference was given to laparotomy.

Inclusion Criteria:

- All neonates and infants with a confirmed diagnosis of CDH, either prenatally or postnatally.
- All neonates who underwent surgical repair for CDH (either open or thoracoscopic approach) during the study period.

• Availability of complete clinical, operative, and follow-up data.

Exclusion Criteria:

• Patients diagnosed with CDH who were managed conservatively and did not undergo surgery.

• Patients with incomplete medical or surgical records that hindered comprehensive data extraction.

• Neonates with diaphragmatic eventration.

One of the main objectives of this work was to study the characteristics of the quality of life (QOL) of children before and after surgery. QOL was studied using the QUALIN scale (S. Manificat, 1997) - a questionnaire for assessing the quality of life of children aged 3 months to 3 years. Statistical processing of data was carried out using MS Excel version 2010 and the statistical package SPSS Statistics 20 (a comprehensive software product used by sociologists). Quantitative variables of cases and controls were expressed as mean ± standard deviation values. The Student's t-test, specifically the independent samples t-test, is used to compare the means of two independent groups and determine the quantitative differences between these groups.

Values is considered statistically significant at $p< 0.05$.

Results and Discussion.

The average birth weight of the children in the control group was 3832.0±307.77 g (2400.0-9000.0 g). The age at the time of surgery was 200.2±43.45 days (1.0-1020.0 days). The average birth weight of the children in the main group was 3400.0±387.18 g (2400.0-8500.0 g), and the average age was 95.0±51.49 days (1.0-1140.0 days). As in the case of the statistical intergroup analysis of data on the weight of newborns, their assessment according to the Apgar scale and the obtained indicators also did not statistically significantly differ depending on their belonging to a particular examination group ($p>0.05$). Thus, the Apgar score at the 1st minute in the main group was 5.42±0.22 points, and in the control group – 5.66±0.17 points ($p=0.3943$). Similar distinctive features in the data were observed in the groups and at the 5th minute after birth: 8.35±0.14 and 8.64±0.11 points, respectively ($p=0.1118$).

Before and after the operation, both the parent and the doctor filled out a questionnaire based on the QUALIN questionnaire. The results were analyzed and statistical calculations were made from various angles. Before and after the operation, statistically accurate results were obtained for the main parameters of the questionnaire for the control group based on the parents' assessment (Table 1).

According to the results of the survey with the child's parent, after the treatment, behavior and communication ($t=4.36$), family environment ($p=0.0038$, $t=2.97$), neuro-psychic development ($t=33.67$), general assessment ($t=16.03$) demonstrate a very significant positive effect after the operation ($p<0.05$). According to the parameter "Ability to remain alone" does not reach statistical significance ($p=0.164$, $t=1.40$, $p< 0.05$).

Thus, the parameter "Behavior and communication" increased from 4.26±.02 points to 4.49±0.05 points, which indicates a sharp improvement in the condition. It was also noted that the improvement in the parameter "PSWB" (before - 3.20±0.03 points, after - 4.54±0.03 points) increased from 3.20 to 4.54 - an impressive leap. According to the parent, significant improvements were noted, especially in the general background, behavior, family integration and neuropsychiatric state.

In addition, in the control group, the indicators of quality of life parameters were determined based on the information of the doctor before and after the operation (Table 2).

According to the doctor, there was a statistically significant improvement in the "Behavior and communication" parameter after the surgery ($p=0.0185$, $t=2.40$, $p<0.05$). According to the doctor, the Ability to be alone ($t=6.82$), family environment ($t=7.44$), developmental neuropsychological assessment ($t=15.94$) all indicators increased sharply ($p<0.0001$), indicating a noticeable improvement. The overall score also improved significantly ($t=15.79$, $p<0.0001$). Thus, according to the doctor, surgical interventions for congenital diaphragmatic hernias contributed to a significant positive change in the psycho-emotional state of patients: communication skills, emotional state, family support, and overall psychological stability improved. These results are consistent with the child's parent's data, showing a decrease in anxiety and an improvement in psychological well-being after surgical interventions.

Based on the quantitative indicator of the parameter "Ability to be alone", a slight but statistically significant improvement was noted ($p<0.0001$, $t=5.91$). Based on the parameter, the average indicator "Family environment" increased, but reliably insignificantly ($p=0.2698$, $t=1.11$) (Table 3).

The parameter "Psychological and somatic well-being" increased significantly (by~0.61 points), with very high statistical significance ($p<0.0001$, $t=9.27$).

This indicates an improvement in cognitive, emotional and psychological adaptive functions. In the control group, surgical intervention for diaphragmatic hernia of the newborn is accompanied by a significant improvement in the psych emotional state. Family support remains stable, but does not demonstrate rapid change, which indicates the need for targeted measures to care for the child after surgery. Statistically accurate results were obtained for the necessary indicators for the main group of parents before and after surgery.

As can be seen from Table 4, although there was an improvement in the Behavior and Communication indicator, there was no statistically significant difference between the indicators before (3.78±0.10 points) and after (4.26±0.07 points) treatment ($p=0.0818$, $t=1.77$).

Statistically significant improvement was recorded after treatment for all other parameters ($p<0.05$). The parameters Ability to be alone ($t=8.02$), Family environment ($t=3.70$), PSWB ($t=4.79$) increased statistically significantly.

Then a comparative analysis of the results of the questionnaires of both parents and doctors was conducted for both groups. As can be seen from Table 5, there were some significant differences between the groups after the operation according to the doctors.

There was no statistically significant difference between the groups for the parameter "Behavior and communication" ($p=0.4542$, $t=0.75$). Also, according to the doctors, the parameters "Family environment" ($p=0.1775$, $t=1.36$) and "Psychological and somatic well-being" ($p=0.9960$, $t=0.00$) did not differ statistically between the groups. However, according to the parameter "Ability to be alone", according to the doctors,

Table 1. *Indicators of quality of life parameters according to parents' data before and after surgery in the control group.*

Aspects of QoL	Before treatment	After treatment	p	t
Behavior and communication (BC),	4,26±0,02	4,49±0,05	0.0000	4.36
Ability to remain alone (ARA)	2,92±0,06	3,06±0,08	0.1645	1.40
Family environment (FE)	4,36±0,03	4,59±0,07	0.0038	2.97
Psychological and somatic well-being (PSWB)	3,20±0,03	4,54±0,03	0.0000	33.67
The total score (TS)	3,70±0,01	4,30±0,03	0.0000	16.03

Table 2. *Quantitative indicators of the questionnaire before and after treatment in the control group based on the doctor's information.*

Aspects of QoL	Before treatment	After treatment	p	t
Behavior and communication (BC),	3,97±0,03	4,18±0,08	0.0185	2.40
Ability to remain alone (ARA)	2,80±0,05	3,28±0,04	0.0000	6.82
Family environment (FE)	4,15±0,04	4,75±0,07	0.0000	7.44
Psychological and somatic well-being (PSWB)	3,42±0,05	4,56±0,05	0.0000	15.94
The total score (TS)	3,63±0,01	4,25±0,03	0.0000	15.79

Table 3. *Quantitative indicators of the questionnaire before and after treatment in the main group based on information from parents.*

Aspects of QoL	Before treatment	After treatment	p	t
Behavior and communication (BC),	4,09±0,08	4,44±0,06	0.0387	2.11
Ability to remain alone (ARA)	3,85±0,13	3,96±0,13	0.0000	5.91
Family environment (FE)	4,41±0,04	4,71±0,08	0.2698	1.11
Psychological and somatic well-being (PSWB)	3,78±0,05	4,39±0,05	0.0000	9.27
The total score (TS)	3,98±0,03	4,39±0,03	0.0000	6.67

Table 4. *Quantitative indicators of the questionnaire before and after treatment in the main group based on the doctor's information.*

Aspects of QoL	Before treatment	After treatment	p	t
Behavior and communication (BC),	3,78±0,10	4,26±0,07	0.0818	1.77
Ability to remain alone (ARA)	3,70±0,09	4,04±0,04	0.0000	8.02
Family environment (FE)	4,42±0,06	4,85±0,02	0.0004	3.70
Psychological and somatic well-being (PSWB)	3,72±0,04	4,56±0,03	0.0000	4.79
The total score (TS)	3,82±0,03	4,40±0,04	0.0000	4.90

Table 5. *Indicators of quality of life parameters according to doctors in the main and control groups after surgery.*

Aspects of QoL	Control group (n=44)	Main group (n=26)	p	t
Behavior and communication (BC),	4,26±0,07	4,18±0,08	0.4542	0.75
Ability to remain alone (ARA)	4,04±0,04	3,28±0,04	0.0000	13.27
Family environment (FE)	4,85±0,02	4,75±0,07	0.1775	1.36
Psychological and somatic well-being (PSWB)	4,56±0,03	4,56±0,05	0.9960	0.00
The total score (TS)	4,40±0,04	4,25±0,03	0.0012	3.38

Table 6. *Indicators of quality of life parameters according to parents' data in the main and control groups after surgery.*

Aspects of QoL	Control group (n=44)	Main group (n=26)	p	t
Behavior and communication (BC),	4,49±0,05	4,44±0,06	0.5495	0.60
Ability to remain alone (ARA)	3,06±0,08	3,96±0,13	0.0000	5.67
Family environment (FE)	4,59±0,07	4,71±0,08	0.2874	1.07
Psychological and somatic well-being (PSWB)	4,54±0,03	4,39±0,05	0.0191	2.40
The total score (TS)	4,30±0,03	4,39±0,03	0.0511	1.99

there was a statistically significant difference between the indicators of the main group (4.04±0.04) and the control group (3.28±0.04) ($t=13.27$, $p<0.05$).

The indicators obtained from parents in the main and control groups were also analyzed in the postoperative period and significant differences were revealed. According to the parents' indicators, statistically significant differences were not revealed in the parameters "Behavior and communication" ($p=0.5495$, $t=0.60$), "Family environment" ($t=1.07$) (Table 6).

However, according to the parents' indicators, statistically significant differences were revealed in the parameters "Ability to remain alone" ($t=5.67$) and "PSWB" ($p=0.0191$, $t=2.40$). There were no statistically significant differences between the parents' indicators and the doctor's indicators. In both cases,

statistically significant differences were found in the parameters “Ability to remain alone” and “Neurological development”.

Thus, according to the results of the QUALIN questionnaire, an improvement in all indicators in the postoperative period was noted in the main and control groups. Also, in the main group, the indicators were high for all parameters according to both parents and doctors. However, statistical reliability was achieved for the parameters "Ability to live independently" and "Neurological and mental development". This also shows that the surgical treatment of diaphragmatic hernia in newborns that we proposed leads to a rapid improvement in the general condition of children and an intensification of the healing process, thereby bringing further development closer to normal indicators.

Conclusion.

As a result of monitoring the health of children who underwent major surgeries for congenital diaphragmatic hernias, it was possible to establish positive dynamics in quality of life indicators. Significant differences in various quality of life measures (notably the ability to remain alone and psychological well-being) were noted between conventional and minimally invasive techniques. Nevertheless, significant differences were not detected across all quality of life measures, and heterogeneity was evident in the items based on parental and physician assessments. The results obtained demonstrate the need to monitor quality of life indicators as a criterion for assessing the health of children born in critical condition, and can serve as a basis for developing recommendations for improving the quality of surgical care for this category of patients.

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Резюме

СРАВНЕНИЕ КАЧЕСТВА ЖИЗНИ МЕЖДУ ТОРАКОСКОПИЧЕСКОЙ И ТРАДИЦИОННОЙ ХИРУРГИЕЙ ПРИ ЛЕЧЕНИИ ВРОЖДЕННОЙ ДИФРАГМАЛЬНОЙ ГРЫЖИ У НОВОРОЖДЕННЫХ

Гусейнов Фуад Рафик оглы, Гасымов Азер Шимид оглы.

Азербайджанский государственный институт усовершенствования врачей имени А. Алиева, Баку.

Кафедра хирургических болезней III Азербайджанского Медицинского Университета, Баку.

Целью исследования явилось изучение эффективности хирургического лечения с использованием малоинвазивного хирургической техники – эндохирургии у новорожденных с диафрагмальной грыжи на основе анкетного спроса. В исследование были включены 70 новорожденных с патологией. В зависимости от метода хирургического вмешательства дети были разделены на 2 группы. 1-ю группу составили 44 новорожденных с врожденной диафрагмальной грыжей, прооперированных традиционным открытым способом. 2-ю основную группу составили 26 новорожденных с аналогичной патологией, прооперированных с использованием малоинвазивного вида хирургической техники - эндохирургии. До и после операции как родитель, так и врач заполняли анкету на основе опросника QUALIN. По результатам анкетирования в основной и контрольной группах отмечено улучшение всех показателей в послеоперационном периоде. Также в основной группе по всем параметрам показатели были высокими по данным как родителей, так и врачей. Однако статистическая достоверность была достигнута по параметрам «Способность к самостоятельному проживанию» и «Неврологическое и психическое развитие». Это также показывает, что предложенное нами хирургическое лечение диафрагмальной грыжи у новорожденных приводит к быстрому улучшению общего состояния детей и интенсификации процесса заживления, тем самым приближая дальнейшее развитие к нормальным показателям.

Ключевые слова: новорожденные, диафрагмальная грыжа, торакоскопическая хирургия, качество жизни, QUALIN