# GEORGIAN MEDICAL MEWS

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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 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 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. მიკროფოტო-სურათების წარწერებში საჭიროა მიუთითოთ ოკულარის ან ობიექტივის საშუალებით გადიდების ხარისხი, ანათალების შეღებვის ან იმპრეგნაციის მეთოდი და აღნიშნოთ სუ-რათის 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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# LAPAROSCOPIC APPROACH TO A GIANT RUPTURED SPLENIC CYST: A CHALLENGING CASE REPORT

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## Abstract.

Splenic cysts are rare; their absence of an epithelial wall determines whether they're real cysts or pseudocysts. Spontaneous nonparasitic actual tumors are those that develop early in life at the anterior pole of the splenic and are typically epidermoid, dermoid, or endodermal. Surgical therapy is suggested for symptomatic, large (more than 5 cm) cysts or complicated. Inhaling splenic excision is a substitute for surgery, depending on the quantity, location, connection to the hilus, and dimension of the tumors. With an emphasis on less invasive treatments that preserve the spleen, laparoscopic methods have already established themselves as the accepted method for treating numerous disorders, including splenic cysts. They describe the effective decapsulation of a massive epidermoid spleen tumor under a prolonged, partially endoscopic technique. Laparoscopy, an operation commonly referred to as surgery with minimally invasive or keyhole surgery, is a technique that makes many tiny incisions in the belly to carry out different surgical procedures.

**Key words.** Endometriosis (ENDO), computed tomography (CT), Laparoscopic, Splenic cyst, Surgical, Tumours.

# Introduction.

Splenic tumors are relatively rare, encompassing infectious and nonparasitic cysts, categorized as primary true and secondary (pseudocysts) [1-3]. This study evaluates therapy effectiveness for splenic cyst patients, including monitoring tumor antigen levels. While most splenic cysts are asymptomatic, they can cause complications such as growth, infection, or rupture [4-6]. Endoscopic therapy is preferred for nonparasitic mesenteric tumors, whereas spontaneous or traumatic fractures necessitate surgery. Recent reports highlight elevated specific markers in splenic cysts [7-9]. A ruptured hepatic cyst was successfully treated with emergency surgery. Insulinomas, often causing severe hypoglycemia symptoms, are relatively uncommon and may be diagnosed late, especially when linked to neuropsychiatric disorders. The UK sees a frequency of one to two cases per billion, typically presenting as punctures, measuring less than two centimeters, and often associated with splenic cyst rupture [10-13]. The spleen in the upper left abdomen plays a role in blood filtration and the immune system. While most splenic tumors are asymptomatic, cyst enlargement can lead to complications, including rupture. Laparoscopic cystectomy offers reduced pain, minimal tissue disruption, quicker recovery, and improved aesthetics [14]. This article also discusses pediatric hepatic cyst cases and their management. Endoscopic procedures have effectively treated nonparasitic splenic cysts, reducing infection risks. Musculoskeletal issues are common among laparoscopists due to the physically demanding nature of the surgical Approach. The cyst's size typically correlates with symptom severity. Surgical windows and doors have effectively prevented recurrences. Additionally, we describe the successful treatment of a spleen tumor using a specific therapy [15].

# Case presentation.

A female patient, age 19, who suffered from discomfort in the left lower area, was sent to the hospital's trauma unit. The patient had a history of abdominal trauma but otherwise had a healthy medical history. A palpable bulge was found during a medical check in the left depression. The outputs of the typical hematological or the results of the biochemical testing were good. Chest and belly X-rays revealed an enlarged left hemi in the abdomen, and a rounded hypoechoic with intrinsic sounds and usual wall thickness was detected by abdominal Obstetric. They were encircled on the exterior by splenic tissue. On the abdomen computed tomography scan, an established, big, noenhancing, unicellular cm attenuated cystic lesion in the upper pole of the spleen was discovered, ruling out a parasitic origin. The ailment caused the lungs to move higher, the left kidneys to move lower, and the lower abdomen and left liver lobe to move towards the right.

Additionally shown were pressure consequences on the pancreatic duct and spleen vein. The weights of both of them were recorded. Short tau inversion recovery was used in abdominal MRI research, with fast delayed graded echo 3D saturation and augmented images on the axial and transverse planes. Ideas with low first and elevated second signal intensities revealed a massive, distinct cystic mass.

As gadolinium was administered intravenously, it produced no improvement in the center, but there was a narrow, weak margin increase that might have represented a tablet. An early tumor was discovered, concealing it was torn and dragged downwards. The colon's hepatic flexion was moved, and the LigaSure 5-millimeter vascular closing device was employed to separate the splenocolic ligament. The gastrosplenic ligaments, splenophrenic emails with attachments, and short stomach arteries were also severed and split, respectively. The cyst was next pierced with a syringe at the most prominent location, using the same safety procedures as when addressing a parasite cyst.

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The pus was partly displaced, and a hypertonic saline solution was used to rinse the cyst chamber. Epithelial pieces containing no signs of cancer were visible in the evacuated cyst material, and biochemical testing revealed elevated levels of cancer antigen 19-9. Except for the wall bordering the remaining pancreatic tissue, the outer layer of the cyst was essentially resectioned using the ligature vessel sealing system, with excellent blood clotting while respecting the middle pole of the liver. A tube with a drain was then inserted into the situated remnant enlargement space chamber after the cyst capsule had been extracted using an endometriosis capture. The procedure took 135 minutes to complete despite losing 120 ml of blood. The histologist's evaluation of the newly resected substance exposed that it had been a fragment of a spleen tumor. Septations and many grayish-yellow, solid trabeculations have been observed on the inner surface. Hyalinized thick fibrous cells made up the cyst's wall, and keratinized squamous epithelial cells coated the outermost layer of the cortex. The inner layer was variable based on flattening a single-layer cuboidal to completely layered keratinized squamous epithelial cells.

There is no indication of the epidermal type of malignancies in the squamous epitheliums with stratification. The histological results supported its spontaneous splenic epidermoid cyst diagnosis. Medically, the individual's recovery went well and quickly. The tissue surrounding the splenic leftover was mistakenly interpreted as having blood flow imperfections, especially in the outermost portion of the cyst-like building left in situ, on an additional abdominal computed tomography scan performed on the third afterward day, which revealed peril splenic accumulation of fluid and an air-filled space adjacent to the splenic cells the unaffected man received a complete removing the s as a result of computed tomography leads to that suggested postoperative vascular damage to rule out any possibility of hepatic ischemic. The procedure was performed straight stapling twice to prevent harm to the distant pancreatic. A catheter was inserted into the left subphrenic distance, where the fully resectioned kidney was recovered, and the remaining wounds were sealed as usual. A 45-minute process was completed without any blood loss. The removed specimen's histological analysis showed a microscopically complete splenic collectively wid its gateway arteries and a vestige of the cystic membrane. Slight compaction and edema were detected in the splenic tissue known as par, but there was no sign of ischemic or stroke. The histological properties of the earlier excised cysts were shared by the duct walls connected to the remaining spleen. The individual had a smooth surgical naturally, received a vaccination versus diseases related to their spleen transplant, and got out a week afterward with an average abdomen US At ten days following surgery, the platelet count climbed by three weeks after surgery, and it had decreased to outside the normal

Four months following the surgery, her urine levels of the level of cancer antigen 19 remained normal. Throughout the 12-month monitoring period, they had yet to have gastrointestinal problems. A US abdomen scan indicated a giant, spherical, underdeveloped cystic in nature lesion with inner echo and a regular thin wall that a periphery of splenic



Figure 1. Plain chest X-ray.

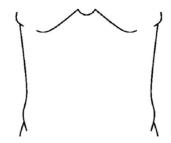


Figure 2. Port positions.

material had enclosed. The chest and abdomen gamma revealed that the left hemisphere diaphragmatic was raised (Figure 1), representing the plain chest X-ray.

The port positions of the surgical area, the surgeon's choice, and the equipment used are some considerations when deciding where to place the port. (Figure 2) shows the port position of a 10-mm umbilical port for laparoscopy.

# Results.

In certain situations, laparoscopy decapsulation may be a suitable and safe treatment choice. This paper provides a novel technique that entailed clipping and flinging the spleen hilum on an arterial tape and graphing for the first time. Table 1 displays the numerical outcomes of the relationship months and u/ml.

Intracystic bleeding occurred in 4 individuals with complicated shapes, and cystic rupture occurred in 3 cases. The table represents months and u/ml (range: 2 to 14).

Figure 3 refers to a data table or chart that contains information about the spleen. The table is used to represent how the size of the spleen changes over time, which means it tracks the growth or reduction in the spleen's size as time passes. The cyst's average size was 88.7 mm (5.3) (7-265 mm). Asymptomatic cysts were substantially smaller than functional cysts, with a mean width of 108.6 mm (7.2) and a median width of 67.9 mm (6.7). The median width of the complicated cyst was 97.6 mm (around 13.9). With increasing cyst diameter, the percentage of bothersome and complex cysts rose. While the majority of cysts less than 5 cm were asymptomatic. (Table 2) displays the numerical outcome age (years) and cyst mean size (mm).

Cyst size range (2-10) asymptomatic cysts was significantly smaller than functioning cysts, which have median and mean widths of 67.9 mm, 80.3 mm, and 7.2 mm and 6.7 mm,

respectively (p> b 0.04). Figure 4 represents the relationship between cyst mean size and Age.

Cyst mean size generates carbohydrates antibody cancer antigen 19-9 a glycoprotein. Pancreatic, biliary, or gastric tumors are linked to high levels. With a sensitivity and specificity of 77-88% and 84-90%, accordingly, cancer antigen 19-9 is employed

*Table 1. Numerical outcomes of the relationship months and u/ml.* 

Months	U/ml
2	3186
4	3428
6	3989
8	593
10	5106
12	394
14	204

**Table 2.** Numerical outcome Age (years) and cyst mean size (mm).

Age (years)	Cyst mean size (mm)
2	55
4	75
6	73
8	70
10	95

Table 3. Numerical outcome time and size.

Time (day)	Size (cm)
10	4
20	8
30	5
40	3
50	1

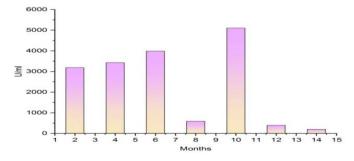


Figure 3. Relationship between Months and U/ml.

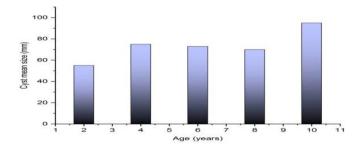


Figure 4. Relationship between Cyst mean size and Age.

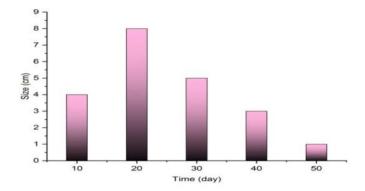


Figure 5. Relationship between size and time.

for diagnosis in these situations as a maintenance indicator in the monitoring; however, benign diseases of this condition, pulmonary cholangitis, and cirrhosis may also result in elevated cancer antigen 19-9 stages, causing misleading positive findings.

The growth rate and size of a cyst, the underlying and personal circumstances, and the therapy are just a few of the variables and time. Table 3 displays the numerical outcome size and time.

Figure 5 depicts the relationship between time and size. Autoinfection of the spleen residual probably causes the first existence, but cessation of splenic autoinfection is not one of these characteristics.

# Discussion.

Cystic tumors larger than 5 cm, which are nonparasitic, have a higher risk of bleeding, rupture, and infection, making surgery recommended for noticeable, large, or complex cysts. Liver transplantation, whether surgical or laparoscopic, is now the standard treatment for nonparasitic spleen cysts [16-18]. In recent years, spleen-preserving surgical approaches have gained popularity due to the spleen's vital role in various bodily functions, including immunity, blood circulation, and disease defense. Minimally invasive endoscopic methods have become the preferred Approach for treating many diseases, including nonparasitic spleen tumors. These techniques include marsupialization, fenestration, partial cystectomy, and partial splenectomy, with the latter involving the removal of the cyst and some surrounding splenic tissue [19-21]. It has been observed that simply removing the tumor or performing marsupialization can lead to cyst recurrence. Still, recurrence is less likely when the entire cyst wall and surrounding tissue are removed. Decapsulation, which involves extensive cyst excision while leaving some of the cyst lining intact, is a faster and easier technique than partial splenectomy. The recurrence rate depends on the extent of cyst wall removal and is generally lower than with aspiration or marsupialization. While laparoscopic therapies for splenic disorders carry higher risks and more extended hospital stays than open cystic decapsulation, the latter has been successfully performed in adult and pediatric patients. In one case, a large acute splenic cyst patient underwent laparoscopic partial decapsulation to protect the spleen. However, due to suspected splenic ischemia, a complete splenectomy was performed three days later [22,23]. Iatrogenic spleen damage is a rare complication of various abdominal and heart surgeries and can include pseudoaneurysm, hematoma, laceration, contusion, and active

hemorrhage. Contrast-enhanced computed tomography is the preferred diagnostic imaging method for identifying splenic damage, especially in cases with complex preoperative histories. Splenic infarction can result from various conditions and may present with symptoms like severe left upper quadrant pain and fever. The appearance of splenic ischemia on a CT scan depends on the timing after the trigger event and can range from single wedge-shaped infarcts to scar-like defects [24]. In one case, postoperative CT scans suggested splenic ischemia after laparoscopic decapsulation, leading to complete splenectomy. However, histological analysis revealed an intact spleen with no signs of ischemia or infarction. Similar cases were not found in the literature. This emphasizes the importance of postnatal contrast-enhanced computed tomography in identifying potential spleen bleeding and guiding treatment decisions [25].

# Conclusion.

Plenty of space inheritance splenic fibroid cysts can be treated successfully and safely alongside laparoscopy insufficient tumor decapsulation. This quick and straightforward procedure preserves the spleen, leading to minor bleeding and no significant complications after the operation. Contrast-enhanced CT is the preferred diagnostic imaging technique for identifying potential damage in individuals with challenging perioperative courses. To prevent needlessly splenectomized, the best management of a spleen injury, whether accidental or not, is crucial to consider both clinical signs and diagnostic findings.

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