# GEORGIAN MEDICAL MEWS

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# 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 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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# RADIOLOGICAL IMAGING METHODS FOR ACCURATE DIAGNOSIS OF ABDOMINAL POSTOPERATIVE COMPLICATIONS

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# Abstract.

Postoperative acute pancreatitis is a disease accompanied by severe symptoms that manifest as a systemic reaction in a certain short time. The choice of optimal methods and accurate implementation of visualization measures are of great importance in determining its severity. The aim of the study was a comparative analysis of the diagnostic efficiency of ultrasound (US) and computed tomography (CT) in detecting postoperative acute pancreatitis and complications after surgery on the gallbladder. A total of 60 patients with acute pancreatitis were included in the study. Of these, 31 (51.7%) were men and 29 (48.3%) were women. The study also included 20 patients with complications after cholecystectomy, including 11 (55.0%) men and 9 (45.0%) women. The types of operations performed were determined and postoperative symptoms were analyzed. All patients underwent CT and US. According to the obtained data, ultrasound was more effective in identifying postoperative infiltrates, and CT for timely diagnosis of abscesses, which was consistent with the results of scientific studies by foreign authors. In general, comparing the effectiveness of ultrasound and CT diagnostic methods for identifying postoperative acute pancreatitis and complications after cholecystectomy, we came to the conclusion that, when studying both postoperative complications, the effectiveness of CT in identifying the main signs was higher than that of ultrasound.

**Key words.** Postoperative pancreatitis, cholecystectomy, complications, ultrasound examination, computed tomography, parameters.

# Introduction.

Postoperative acute pancreatitis is often observed after operations on the pancreas and surrounding tissues and organs, such as central pancreatectomy and distal pancreatectomy [1]. However, posttraumatic pancreatitis can also occur after cardiac or spinal surgery [2]. Equally severe pancreatitis after ERCP can lead to local or systemic complications and even organ failure. Local acute inflammation of the pancreas can delay the healing of pancreatoenteric anastomoses and residual pancreatic necrosis, leading to the formation of pancreatic fistulas, infection, and the need for repeated interventions [3].

The mechanisms of development of acute pancreatitis after pancreatectomy are unclear. Possible factors provoking its occurrence or exacerbation include direct injury to pancreatic tissue during surgery (eg, pancreatic tissue clamping, pancreatic tissue dissection, or pancreaticenteric anastomosis reconstruction); pancreatic tissue ischemia caused by tension, clamping, or dissection of surrounding vessels; use of drugs during anesthesia; and intraoperative/postoperative hypoxia or unstable blood pressure [4].

Maintaining perioperative vital signs as stable as possible, reducing intraoperative clamping of pancreatic tissue and surrounding vessels, and reducing unnecessary pancreatic tissue suturing appear to be important for the prevention of primary postoperative Pneumocystis angiopathy.

In surgical practice, postoperative acute pancreatitis is considered one of the most dangerous and common complications of the abdominal cavity. Its mortality rate ranges from 19.5% to 80% - in a high range. In destructive forms, it even reaches 100% [5-7]. Other authors note that the lethality rate ranges from 4.5% to 15%, and in destructive forms it reaches 24-60%. These discrepancies arise from factors like variations in the severity of the target disease (mild vs. severe), the presence of complications, and the patients' age and overall health. There is no tendency for these indicators to decrease [8,9].

Analysis of the results of laparoscopic cholecystectomy shows that the main causes of complications include iatrogenic damage to the bile ducts, atypical location of the hepatoduodenal joints, the presence of inflammatory infiltrates in the subhepatic space, persistent gallbladder bleeding, and untimely open surgery [10-12].

The feasibility and safety of laparoscopic cholecystectomy for acute cholecystitis in early management have been discussed in several studies, including the short postoperative stay and low morbidity and mortality as medical and economic benefits. However, there are often cases with postoperative infectious and noninfectious complications after laparoscopic cholecystectomy for acute cholecystitis, resulting in adverse economic and medical consequences. The objective of applying these criteria and studying the severity grade of acute cholecystitis is the safe management of laparoscopic cholecystectomy. Therefore, these scoring systems may be useful for evaluating the risk of early postoperative complications after LC [13,14].

Thus, as well as treating postoperative CP and postcholecystectomy complications, which have a fairly high lifethreatening threshold, its detection and early and accurate diagnosis are urgent medical issues.

The aim of the study. Comparative analysis of the diagnostic effectiveness of US and CT examination methods in detecting postoperative acute pancreatitis and complications after gallbladder surgery.

## Material and Methods.

The study included 60 patients with acute pancreatitis. Of these, 31 (51.7%) were men and 29 (48.3%) were women. They developed after cholecystectomy, surgery for acute intestinal obstruction, gastric resection, pancreatectomy, and endoscopic retrograde cholangiopancreatography. Moreover, the evaluation of the results of postoperative visualization and their comparative

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analysis were carried out without taking into account the type of surgical intervention. All patients underwent ultrasound (US) and computed tomography (CT) upon admission to the hospital. The results obtained during the study were statistically processed, statistical reliability coefficients were calculated, and the differences between US and CT for each parameter were discussed.

20 patients with complications after cholecystectomy were included. Of these, 11 (55.0%) were men and 9 (45.0%) were women. All patients included in the study underwent US and CT.

When applying these programs, the technologies of modern computer analysis using parametric and non-parametric methods based on the principles of evidence-based medicine were used.

Statistical analysis was performed using the IBM Statistics SPSS-26 program, using criteria for comparing quantitative indicators of two or more independent groups, which ensure the statistical validity of the differences between parameter indicators. To compare the categorical variable, the contingency table was analyzed and the  $\chi 2$  criterion was determined. Quantitative variables of cases and controls were expressed as mean  $\pm$  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 are considered statistically significant at p< 0.05.

# Results and Discussion.

US and CT examinations were performed to confirm the diagnosis in 60 patients included in the study (Table 1).

Of the 60 patients with postoperative acute pancreatitis, 2 (3.3%) had normal exogenous lesions on USG and 26 (43.3%) on CT. In this case, the effectiveness of CT was statistically significantly higher than that of USG (p<0.0001). Low density (hypoexogenicity) was detected in 33.3% of patients on USG and 45.0% on CT, but the difference was not statistically significant (p=0.1905).

Heterogeneity or the presence of a cystic component was detected in 32 (53.3%) cases on USG and 3.22% on CT. In this regard, USG was more effective and statistically significant (p<0.0001). Pseudocysts were detected in 10% of cases on USG and 5% on CT. However, the difference between the parameters

was not statistically significant (p=0.1905). A false cyst diagnosis leads to additional treatment measures, an increase in the duration of treatment, and an extension of the length of hospital stay. In this regard, CT proves to be a particularly effective method.

Pancreatogenic ascites is a complication of pancreatitis and is characterized by the accumulation of free fluid in the abdominal cavity as a result of the formation of a pancreatic fistula. It can occur not only in chronic pancreatitis but also as a result of pancreatic injury, pancreatic duct stenosis, and virsungolithiasis [15,16] (Table 2).

As can be seen from the table, fluid accumulation was not detected in 30 (50%) patients on US and 28 (46.7%) on CT, and the differences in examination methods were not statistically significant (p=0.7148). Intrapancreatic fluid accumulation (the collection of fluid within the pancreas) was detected in 8 (13.3%) patients on US and 10 (16,7%) on CT, and the statistical significance between the indicators was not determined (p=0.6091).

Peripancreatic fluid collection (buildup of fluid around the gland) was detected in 16 (26.7%) patients on US and 22 (36.7%) on CT, and the statistical significance was not determined (p=0.2390).

Table 3 shows that 7 (35.0%) and 1 (5.0%) patients of the 20 patients included in the study did not have a diagnosis of post-cholecystectomy complications during US, i.e., the diagnostic deficit during US was statistically significant (p=0.0177).

Residual gallstones were detected in 8 (40.0%) and 7 (35.0%) patients during CT (p=0.7440). Also, choledocholithiasis was not detected in 2 (10%) patients by both methods (p=1.000). No choledochal cyst was detected during US. However, a cyst was detected in 1 (5.0%) patient on CT (p=0.3112).

Other authors have also reported a high frequency of complications after cholecystectomy [17-19]. US was more effective in detecting postoperative infiltrates, while CT was more effective in detecting of fluid accumulation, that is confirmed by the results of foreign authors [20-23].

### Conclusion.

The detection of these pathologies, which are very common in clinical practice, and the determination of treatment tactics still require continued research on many problems. We

<b>Table 1.</b> Quantitative indicator:	s of the degree of	pancreatic exogenousity l	by US and CT $(n=60)$ .
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Parameters	US	US		CT	CT		xi2-1-2	p
Echogenicity/density	Abs.	%	m%	Abs.	%	m%		
Normal/Hypodense	2	3,3	2,32	26	43,3	6,40	26,83	0,0000
Hypoechogenous / Heterogeneous	20	33,3	6,09	27	45,0	6,42	1,71	0,1905
Heterogeneous/cystic component	32	53,3	6,44	4	6,7	3,22	31,11	0,0000
Pseudocysts	6	10,0	3,87	3	5,0	2,81	1,08	0,2985

**Table 2.** Quantitative US and CT findings of pancreatogenic ascites in patients included in the study (n=60).

Parameters	US	US		CT			xi2-1-2	
Fluid accumulation	Abs.	%	m%	Abs.	%	m%	X1Z-1-Z	þ
Intrapancreatic	8	13,3	4,39	10	16,7	4,81	0,26	0,6091
Peripancreatic	16	26,7	5,71	22	36,7	6,22	1,39	0,2390
Not detected	30	50,0	6,45	28	46,7	6,44	0,13	0,7148

**Table 3.** Quantitative characteristics of US and CT examinations (n=20).

Parameters	US (n=20)			CT (n=20)			-:2 1 2	р
	Abs.	%	m%	Abs.	%	m%	xi2-1-2	
Undiagnosed	7	35,0	10,67	1	5,0	4,87	5,63	0,0177
Retention of the gallbladder	8	40,0	10,95	7	35,0	10,67	0,11	0,7440
Choledocholithiasis	2	10,0	6,71	2	10,0	6,71	0,00	1,0000
Choledochocyst	0	0,0	0,00	1	5,0	4,87	1,03	0,3112

have compared the effectiveness of US and CT diagnostic methods for the detection of postoperative acute pancreatitis and complications after cholecystectomy, according to many authors, it is very important for the timely detection and prevention of serious post-surgical complications. US was more effective in detecting a mass or lesion that contains both solid (heterogeneous) and fluid-filled (cystic) areas. In postoperative acute pancreatitis and complications after cholecystectomy, the effectiveness of CT in detecting the main signs was higher than that of US.

# **REFERENCES**

- 1. Ikenaga N, Ohtsuka T, Nakata K, et al. Clinical significance of postoperative acute pancreatitis after pancreateduodenectomy and distal pancreatectomy. Surgery. 2021;169:732-737.
- 2. Feng F, Tan H, Li X, et al. Incidence and Risk Factors of Acute Pancreatitis After Scoliosis Surgery: A Prospective Study. Spine (Phila Pa 1976). 2018;43:630-636.
- 3. Wu Z, Zong K, Zhou B, et al. Incidence and risk factors of postoperative acute pancreatitis after pancreaticoduodenectomy: a systematic review and meta-analysis. Front Surg. 2023;10:1150053.
- 4. Bannone E, Andrianello S, Marchegiani G, et al. Postoperative Acute Pancreatitis Following Pancreaticoduodenectomy: A Determinant of Fistula Potentially Driven by the Intraoperative Fluid Management. Ann Surg. 2018;268:815-822.
- 5. Goodchild G, Chouhan M, Johnson GJ. Practical guide to the management of acute pancreatitis. Frontline Gastroenterology. 2019;10:292-299.
- 6. Mihoc T, Latcu SC, Secasan C-C, et al. Pancreatic Morphology, Immunology, and the Pathogenesis of Acute Pancreatitis. Biomedicines. 2024;12:2627.
- 7. Rosales-Muñoz G.J, Souza-Arroyo V, Bucio-Ortiz L, et al. Acute pancreatitis experimental models, advantages and disadvantages. J Physiol Biochem. 2025.
- 8. Gapp J, Tariq A, Chandra S. Acute Pancreatitis. In: StatPearls. Treasure Island (FL): StatPearls Publishing; 2025.
- 9. Muhammad Ali K, Muhammad S, Maha S, et al. Analysis of Mortality Trends in Acute Pancreatitis in the United States, 1999-2020: An Analysis of CDC WONDER Database. The American Journal of Gastroenterology. 2024;119:S48-S49.
- 10. Abdelgawad M.S, Eid M, Abokoura S, et al. Iatrogenic bile duct injuries after laparoscopic cholecystectomy: evaluation by MRCP before management. Egypt Liver Journal. 2023;13:2.
- 11. Moghul F, Kashyap S. Bile Duct Injury. In: StatPearls. Treasure Island (FL): StatPearls Publishing; 2025.
- 12. Plahuta I, Turk Š, Lovrenčič Petreski B, et al. Surgical Repair of Bile Duct Injuries Due to Cholecystectomy—An Experience from a Referral Center in Slovenia. Life. 2025;15:874.

- 13. Di Martino M, Mora-Guzmán I, Vaello Jodra V. How to Predict Postoperative Complications After Early Laparoscopic Cholecystectomy for Acute Cholecystitis: the Chole-Risk Score, Journal of Gastrointestinal Surgery. 2021;25:2814-2822. 14. Tejeda-Herrera D, Caballero-Alvarado J, Zavaleta-Corvera C. THE AMERICAN COLLEGE OF SURGEONS-NATIONAL SURGICAL QUALITY IMPROVEMENT PROGRAM CALCULATOR AND SURGICAL APGAR AS PREDICTORS OF POST-CHOLECYSTECTOMY COMPLICATIONS. Arg Bras Cir Dig. 2025;37:e1862.
- 15. Bathobakae L, Farhan H, Mücahit D, et al. Pancreatic ascites: update on diagnosis and management. Ann Gastroenterol. 2025;38:247-254.
- 16. Hyun JJ, Irani SS, Ross AS, et al. Incidence and Significance of Biliary Stricture in Chronic Pancreatitis Patients Undergoing Extracorporeal Shock Wave Lithotripsy for Obstructing Pancreatic Duct Stones. Gut and Liver. 2021;15:128-134.
- 17. Duca S, Bãlã O, Al-Hajjar N, et al. Laparoscopic cholecystectomy: incidents and complications. A retrospective analysis of 9542 consecutive laparoscopic operations. HPB. 2003;5:152-158.
- 18. Kazi I.A, Siddiqui M.A, Thimmappa N.D, et al. Post-operative complications of cholecystectomy: what the radiologist needs to know. Abdom Radiol. 2025;50:109-130.
- 19. Zackria R, Lopez RA. Postcholecystectomy Syndrome. In: StatPearls. Treasure Island (FL): StatPearls Publishing; 2025.
- 20. Gaballah AH, Kazi IA, Zaheer A, et al. Imaging after Pancreatic Surgery: Expected Findings and Postoperative Complications. RadioGraphics. 2023;44:1.
- 21. Tenorio-Flores E, Sanchez-Rodriguez IG, Garcia-Blanco MD, et al. Comprehensive Imaging Insights into Post-Cholecystectomy Complications for Enhanced Clinical Practice. Clin Med Res. 2024;22:206-214.
- 22. Fugazzola P, Podda M, Wca Tian B, et al. Fausto Catena clinical update on acute cholecystitis and biliary pancreatitis: between certainties and grey areas. Clinical Medicine. 2024;77:102880.
- 23. Walkowska J, Zielinska N, Tubbs RS, et al. Diagnosis and Treatment of Acute Pancreatitis. Diagnostics (Basel). 2022;12:1974.

# Лучевые методы визуализации для точной диагностики абдоминальных послеоперационных осложнений

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**Резюме:** Послеоперационный острый панкреатит, заболевание, сопровождающееся выраженной

симптоматикой, которое проявляется системной реакцией в определенно короткие сроки. Выбор оптимальных методов и точное выполнение мер визуализации имеет большое значение в определении ее тяжести. Целью исследования был сравнительный анализ диагностической эффективности ультразвуковых исследований (УЗИ) и компьютерной томографии (КТ) в выявлении послеоперационного острого панкреатита и осложнений после оперативного вмешательства на желчном пузыре. Всего в исследование было включено 60 пациентов с острым панкреатитом. Из них 31 (51,7%) мужчина, 29 (48,3%) – женщины. В исследование также было включено 20 пациентов с осложнениями после холецистэктомии, из них 11 (55,0%) мужчин и 9 (45,0%) женщин. Были определены виды выполняемых операций и проанализирована послеоперационная симптоматика.

Всем пациентам проведено КТ и УЗИ. По полученным данным, УЗИ оказалось более эффективным в выявлении послеоперационных инфильтратов, а КТ для своевременной диагностики абсцессов, что согласовывалось с результатами научных исследований зарубежных авторов. В общем, сравнивая эффективность методов диагностики УЗИ и КТ для выявления послеоперационного острого панкреатита и осложнений после холецистэктомии, мы пришли к выводу, что, при изучении обеих послеоперационных осложнений, эффективность КТ в выявлении основных признаков была выше, чем у УЗИ.

**Ключевые слова:** Послеоперационный панкреатит, холецистэктомия, осложнения, ультразвуковое исследование, компьютерная томография, параметры