

# GEORGIAN MEDICAL NEWS

---

ISSN 1512-0112

№ 9 (306) Сентябрь 2020

---

ТБИЛИСИ - NEW YORK



ЕЖЕМЕСЯЧНЫЙ НАУЧНЫЙ ЖУРНАЛ

Медицинские новости Грузии  
საქართველოს სამედიცინო სიახლენი

# GEORGIAN MEDICAL NEWS

**No 9 (306) 2020**

Published in cooperation with and under the patronage  
of the Tbilisi State Medical University

Издается в сотрудничестве и под патронажем  
Тбилисского государственного медицинского университета

გამოიცემა თბილისის სახელმწიფო სამედიცინო უნივერსიტეტთან  
თანამშრომლობითა და მისი პატრონაჟით

**ЕЖЕМЕСЯЧНЫЙ НАУЧНЫЙ ЖУРНАЛ  
ТБИЛИСИ - НЬЮ-ЙОРК**

**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 and The International Academy of Sciences, Education, Industry and Arts (U.S.A.) 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 и Международной академией наук, образования, искусств и естествознания (IASEIA) США с 1994 года на русском и английском языках в целях поддержки медицинской науки и улучшения здравоохранения. В журнале публикуются оригинальные научные статьи в области медицины, биологии и фармации, статьи обзорного характера, научные сообщения, новости медицины и здравоохранения.

Журнал индексируется в MEDLINE, отражён в базе данных SCOPUS, PubMed и ВИНТИ РАН. Полнотекстовые статьи журнала доступны через БД EBSCO.

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

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

## **МЕДИЦИНСКИЕ НОВОСТИ ГРУЗИИ**

Ежемесячный совместный грузино-американский научный электронно-печатный журнал  
Агентства медицинской информации Ассоциации деловой прессы Грузии,  
Академии медицинских наук Грузии, Международной академии наук, индустрии,  
образования и искусств США.  
Издается с 1994 г., распространяется в СНГ, ЕС и США

### **ГЛАВНЫЙ РЕДАКТОР**

Николай Пирцхалаишвили

### **НАУЧНЫЙ РЕДАКТОР**

Елене Гиоргадзе

### **ЗАМЕСТИТЕЛЬ ГЛАВНОГО РЕДАКТОРА**

Нино Микаберидзе

### **НАУЧНО-РЕДАКЦИОННЫЙ СОВЕТ**

**Зураб Вадачкориа - председатель Научно-редакционного совета**

Михаил Бахмутский (США), Александр Геннинг (Германия), Амиран Гамкрелидзе (Грузия),  
Константин Кипиани (Грузия), Георгий Камкамидзе (Грузия),  
Паата Куртанидзе (Грузия), Вахтанг Масхулия (Грузия),  
Тенгиз Ризнис (США), Реваз Сепиашвили (Грузия), Дэвид Элуа (США)

### **НАУЧНО-РЕДАКЦИОННАЯ КОЛЛЕГИЯ**

**Константин Кипиани - председатель Научно-редакционной коллегии**

Архимандрит Адам - Вахтанг Ахаладзе, Амиран Антадзе, Нелли Антелава, Тенгиз Асатиани,  
Гия Берадзе, Рима Бериашвили, Лео Бокерия, Отар Герзмава, Лиана Гогиашвили, Нодар Гогешашвили,  
Николай Гонгадзе, Лия Дваладзе, Манана Жвания, Тамар Зерекидзе, Ирина Квачадзе,  
Нана Квирквелия, Зураб Кеванишвили, Гурам Кикнадзе, Димитрий Кордзаиа, Теймураз Лежава,  
Нодар Ломидзе, Джанлуиджи Мелотти, Марина Мамаладзе, Караман Пагава,  
Мамука Пирцхалаишвили, Анна Рехвиашвили, Мака Сологашвили, Рамаз Хецуриани,  
Рудольф Хохенфеллнер, Кахабер Челидзе, Тинатин Чиковани, Арчил Чхотуа,  
Рамаз Шенгелия, Кетеван Эбралидзе

Website:

[www.geomednews.org](http://www.geomednews.org)

The International Academy of Sciences, Education, Industry & Arts. P.O.Box 390177,  
Mountain View, CA, 94039-0177, USA. Tel/Fax: (650) 967-4733

**Версия:** печатная. **Цена:** свободная.

**Условия подписки:** подписка принимается на 6 и 12 месяцев.

**По вопросам подписки обращаться по тел.: 293 66 78.**

**Контактный адрес:** Грузия, 0177, Тбилиси, ул. Асатиани 7, IV этаж, комната 408  
тел.: 995(32) 254 24 91, 5(55) 75 65 99

Fax: +995(32) 253 70 58, e-mail: [ninomikaber@geomednews.com](mailto:ninomikaber@geomednews.com); [nikopir@geomednews.com](mailto:nikopir@geomednews.com)

**По вопросам размещения рекламы обращаться по тел.: 5(99) 97 95 93**

© 2001. Ассоциация деловой прессы Грузии

© 2001. The International Academy of Sciences,  
Education, Industry & Arts (USA)

## **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; Georgian Academy of Medical Sciences; International Academy of Sciences, Education, Industry and Arts (USA).

Published since 1994. Distributed in NIS, EU and USA.

### **EDITOR IN CHIEF**

Nicholas Pirtskhalaishvili

### **SCIENTIFIC EDITOR**

Elene Giorgadze

### **DEPUTY CHIEF EDITOR**

Nino Mikaberidze

### **SCIENTIFIC EDITORIAL COUNCIL**

#### **Zurab Vadachkoria - Head of Editorial council**

Michael Bakhmutsky (USA), Alexander Gënning (Germany),

Amiran Gamkrelidze (Georgia), David Elua (USA),

Konstantin Kipiani (Georgia), Giorgi Kamkamidze (Georgia), Paata Kurtanidze (Georgia),

Vakhtang Maskhulia (Georgia), Tengiz Riznis (USA), Revaz Sepiashvili (Georgia)

### **SCIENTIFIC EDITORIAL BOARD**

#### **Konstantin Kipiani - Head of Editorial board**

Archimandrite Adam - Vakhtang Akhaladze, Amiran Antadze, Nelly Antelava,

Tengiz Asatiani, Gia Beradze, Rima Beriashvili, Leo Bokeria, Kakhaber Chelidze,

Tinatin Chikovani, Archil Chkhotua, Lia Dvaladze, Ketevan Ebralidze, Otar Gerzmava,

Liana Gogiashvili, Nodar Gogebashvili, Nicholas Gongadze, Rudolf Hohenfellner,

Zurab Kevanishvili, Ramaz Khetsuriani, Guram Kiknadze, Dimitri Kordzaia, Irina Kvachadze,

Nana Kvirkevelia, Teymuraz Lezhava, Nodar Lomidze, Marina Mamaladze, Gianluigi Melotti,

Kharaman Pagava, Mamuka Pirtskhalaishvili, Anna Rekhviashvili, Maka Sologhashvili,

Ramaz Shengelia, Tamar Zerekidze, Manana Zhvania

### **CONTACT ADDRESS IN TBILISI**

GMN Editorial Board

7 Asatiani Street, 4<sup>th</sup> Floor

Tbilisi, Georgia 0177

Phone: 995 (32) 254-24-91

995 (32) 253-70-58

Fax: 995 (32) 253-70-58

### **CONTACT ADDRESS IN NEW YORK**

NINITEX INTERNATIONAL, INC.

3 PINE DRIVE SOUTH

ROSLYN, NY 11576 U.S.A.

**WEBSITE**

[www.geomednews.org](http://www.geomednews.org)

Phone: +1 (917) 327-7732

## 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](http://www.nlm.nih.gov/bsd/uniform_requirements.html) В конце каждой оригинальной статьи приводится библиографический список. В список литературы включаются все материалы, на которые имеются ссылки в тексте. Список составляется в алфавитном порядке и нумеруется. Литературный источник приводится на языке оригинала. В списке литературы сначала приводятся работы, написанные знаками грузинского алфавита, затем кириллицей и латиницей. Ссылки на цитируемые работы в тексте статьи даются в квадратных скобках в виде номера, соответствующего номеру данной работы в списке литературы. Большинство цитированных источников должны быть за последние 5-7 лет.

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

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

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

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

**При нарушении указанных правил статьи не рассматриваются.**

## REQUIREMENTS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

## ავტორთა საქურაღებოლ!

რედაქციაში სტატიის წარმოდგენისას საჭიროა დაიცვათ შემდეგი წესები:

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

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

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

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

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

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

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

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

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

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

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

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

აღნიშნული წესების დარღვევის შემთხვევაში სტატიები არ განიხილება.



Содержание:

<b>Savchuk R., Kostyev F., Dekhtiar Y.</b> URODYNAMIC PATTERNS OF ARTIFICIAL BLADDER.....	7
<b>Тяжелов А.А., Карпинская Е.Д., Карпинский М.Ю., Браницкий А.Ю.</b> ВЛИЯНИЕ КОНТРАКТУР ТАЗОБЕДРЕННОГО СУСТАВА НА СИЛУ МЫШЦ БЕДРА.....	10
<b>Тандилава И.И., Урушадзе О.П., Цецхладзе Д.Ш., Цецхладзе Г.Н., Путкарадзе М.Ш.</b> РОЛЬ И МЕСТО ВИРТУАЛЬНОЙ КТ-КОЛОНОСКОПИИ В КОМПЛЕКСНОЙ ЛУЧЕВОЙ ДИАГНОСТИКЕ ЗАБОЛЕВАНИЙ ТОЛСТОЙ КИШКИ.....	19
<b>Dosbaev A., Dilmagambetov D., Ilyasov E., Tanzharykova G., Baisalbayev B.</b> EFFECTIVENESS OF EARLY VIDEO-ASSISTED MINI-ACCESS SURGERY IN TREATMENT OF COMPLICATED FORMS OF TUBERCULOUS PLEURISY.....	23
<b>Dvali M., Tsertsvadze O., Skhirtladze Sh.</b> USE OF OPTICAL COHERENCE TOMOGRAPHY IN DETECTION OF CYSTOID MACULAR EDEMA AFTER TREATMENT WITH NONSTEROIDAL ANTI-INFLAMMATORY DRUGS .....	28
<b>Zabolotnyi D., Zabolotna D., Zinchenko D., Tsvirinko I., Kizim Y.</b> DIAGNOSIS AND TREATMENT OF PATIENTS WITH SINONASAL INVERTED PAPILLOMA.....	31
<b>Smolyar N., Lesitskiy M., Bezvushko E., Fur N., Hordon-Zhura H.</b> ENAMEL RESISTANCE IN CHILDREN WITH MALOCCLUSIONS .....	37
<b>Ivanyushko T., Polyakov K., Usatov D., Petruk P.</b> THE CONTENT OF NK CELLS AND THEIR SUBTYPES IN THE CASE OF DRUG-INDUCED JAW OSTEONECROSIS.....	41
<b>Antonenko M., Reshetnyk L., Zelinskaya N., Stolyar V., Revych V.</b> DIVERSITY OF TREATMENT OF GENERALIZED PERIODONTAL DISEASES..... IN PATIENTS WITH ANOREXIA NERVOSA	46
<b>Косырева Т.Ф., Абакелия К.Г.</b> СОВРЕМЕННЫЕ ПРЕДСТАВЛЕНИЯ О ВЛИЯНИИ ПИЩЕВЫХ ЖИДКОСТЕЙ НА СОСТОЯНИЕ ЗУБОЧЕЛЮСТНОЙ СИСТЕМЫ (ОБЗОР).....	52
<b>Sharashenidze M., Tkeshelashvili V., Nanobashvili K.</b> DENTAL FLUOROSIS PREVALENCE, SEVERITY AND ASSOCIATED RISK FACTORS IN PRE-SCHOOL AGED CHILDREN RESIDING IN FLUORIDE DEFICIENT REGIONS OF GEORGIA .....	57
<b>Горбатюк О.М., Солейко Д.С., Курило Г.В., Солейко Н.П., Новак В.В.</b> УРГЕНТНЫЕ ХИРУРГИЧЕСКИЕ ВМЕШАТЕЛЬСТВА ПРИ БОЛЕЗНИ КРОНА У ДЕТЕЙ.....	61
<b>Беш Л.В., Слюзар З.Л., Маюра О.И.</b> ОПТИМИЗАЦИЯ АЛЛЕРГЕН-СПЕЦИФИЧЕСКОЙ ИММУНОТЕРАПИИ У ДЕТЕЙ, БОЛЬНЫХ БРОНХИАЛЬНОЙ АСТМОЙ: ОСОБЕННОСТИ ОТБОРА ПАЦИЕНТОВ И МОНИТОРИНГ ЭФФЕКТИВНОСТИ .....	67
<b>Tchkonka D., Vacharadze K., Mskhaladze T.</b> THE EFFICACY OF ENDOBRONCHIAL VALVE THERAPY IN COMPLEX TREATMENT .....	73
<b>Gogichaishvili L., Lobjanidze G., Tsertsvadze T., Chkhartishvili N., Jangavadze M.</b> DIRECT-ACTING ANTIVIRALS FOR HEPATITIS C DO NOT AFFECT THE RISK OF DEVELOPMENT OR THE OUTCOME OF HEPATOCELLULAR CARCINOMA .....	76
<b>Грек И.И., Рогожин А.В., Кушнир В.Б., Колесникова Е.Н., Кочуева М.Н.</b> ВЛИЯНИЕ УРОВНЯ ПОТРЕБЛЕНИЯ АЛКОГОЛЯ НА ТЕЧЕНИЕ И ЭФФЕКТИВНОСТЬ ЛЕЧЕНИЯ ВПЕРВЫЕ ДИАГНОСТИРОВАННОГО ТУБЕРКУЛЁЗА ЛЁГКИХ.....	81
<b>Tsaryk V., Swidro O., Plakhotna D., Gumeniuk N., Udovenko N.</b> COMMON VARIABLE IMMUNODEFICIENCY AMONG KYIV RESIDENTS: HETEROGENEITY OF MANIFESTATIONS (CLINICAL CASE REVIEW).....	88
<b>Марута Н.А., Панько Т.В., Каленская Г.Ю., Семикина Е.Е., Денисенко М.М.</b> ПСИХООБРАЗОВАТЕЛЬНАЯ ПРОГРАММА В ПРОФИЛАКТИКЕ ПСИХИЧЕСКОГО ЗДОРОВЬЯ ВНУТРЕННЕ ПЕРЕМЕЩЕННЫХ ЛИЦ.....	92

<b>Babalian V., Pastukh V., Sykal O., Pavlov O., Rudenko T., Ryndenko V.</b> MANAGEMENT OF EMOTIONAL DISORDERS IN ELDERLY PATIENTS UNDERGOING SURGICAL TREATMENT OF PROXIMAL FEMORAL FRACTURES .....	99
<b>ნანეიშვილი Н.Б., Силагадзе Т.Г.</b> ОЦЕНКА НЕВЕРБАЛЬНОГО ИНТЕЛЛЕКТА И СОЦИАЛЬНОГО ФУНКЦИОНИРОВАНИЯ БОЛЬНЫХ ШИЗОФРЕНИЕЙ, МАНИФЕСТИРОВАННОЙ В ДЕТСКОМ И ПОДРОСТКОВОМ ВОЗРАСТЕ .....	107
<b>Смагулов Б.</b> СОЦИОДЕМОГРАФИЧЕСКАЯ ХАРАКТЕРИСТИКА СУИЦИДЕНТОВ ТЮРКСКИХ И СЛАВЯНСКИХ НАЦИОНАЛЬНОСТЕЙ .....	113
<b>Asatiani N., Todadze Kh.</b> NEUROLOGICAL DISORDERS AMONG THE USERS OF HOMEMADE ARTISANAL EPHEDRONE PSYCHOSTIMULANTS AND INVESTIGATION OF THIOGAMMA EFFICACY IN THEIR TREATMENT .....	117
<b>Фартушок Т.В.</b> COVID-19: АКТУАЛЬНЫЕ ВОПРОСЫ ДЕЯТЕЛЬНОСТИ КЛИНИК ВО ВРЕМЯ ПАНДЕМИИ .....	122
<b>Dondoladze Kh., Nikolaishvili M., Museliani T., Jikia G., Zurabashvili D.</b> IMPACT OF HOUSEHOLD MICROWAVE OVEN NON-IONIZING RADIATION ON BLOOD PLASMA CORTISOL LEVELS IN RATS AND THEIR BEHAVIOR.....	132
<b>Ivanov O., Haidash O., Voloshin V., Kondratov S., Smirnov A.</b> INFLUENCE OF THE ACTING SUBSTANCE “SODIUM DICLOFENAC” ON BONE MARROW CELLS.....	137
<b>Tuleubaev B., Saginova D., Saginov A., Tashmetov E., Koshanova A.</b> HEAT TREATED BONE ALLOGRAFT AS AN ANTIBIOTIC CARRIER FOR LOCAL APPLICATION .....	142
<b>Kakabadze M.Z., Paresishvili T., Kordzaia D., Karalashvili L., Chakhunashvili D., Kakabadze Z.</b> RELATIONSHIP BETWEEN ORAL SQUAMOUS CELL CARCINOMA AND IMPLANTS (REVIEW) .....	147
<b>Удод А.А., Центило В.Г., Солодкая М.М.</b> КРАНИОМЕТРИЧЕСКИЕ ПАРАМЕТРЫ И МОРФОЛОГИЧЕСКИЕ ОСОБЕННОСТИ ВЕРХНЕЙ ЧЕЛЮСТИ ЧЕЛОВЕКА .....	151
<b>Удод А.А., Помпий А.А., Кришук Н.Г., Волошин В.А.</b> ИССЛЕДОВАНИЕ НАПРЯЖЕННО-ДЕФОРМИРОВАННЫХ СОСТОЯНИЙ РАЗЛИЧНЫХ КОНСТРУКЦИЙ АДГЕЗИВНЫХ МОСТОВИДНЫХ ПРОТЕЗОВ .....	156
<b>Дорофеева Л.М., Карабин Т.А., Менджул М.В., Хохлова И.В.</b> ЭМБРИОН И ПЛОД ЧЕЛОВЕКА: ПРОБЛЕМЫ ПРАВОВОЙ ЗАЩИТЫ .....	162
<b>Корчева Т.В., Невельская-Гордеева Е.П., Войтенко Д.А.</b> ВРАЧЕБНАЯ ТАЙНА: МЕДИЦИНСКИЙ, УГОЛОВНО-ПРОЦЕССУАЛЬНЫЙ И ФИЛОСОФСКО-ПРАВОВОЙ АСПЕКТЫ ЕЁ РАЗГЛАШЕНИЯ (ОБЗОР) .....	166
<b>Бортник С.Н., Калениченко Л.И., Слинько Д.В.</b> ОТДЕЛЬНЫЕ АСПЕКТЫ ЮРИДИЧЕСКОЙ ОТВЕТСТВЕННОСТИ МЕДИЦИНСКИХ РАБОТНИКОВ НА ПРИМЕРЕ УКРАИНЫ, ГЕРМАНИИ, ФРАНЦИИ, США.....	171
<b>Fyl S., Kulyk O., Fedotova H., Lelet S., Vashchuk N.</b> MEDICAL MALPRACTICE AND LEGAL LIABILITY IN THE RENDERING OF HEALTHCARE SERVICES IN UKRAINE.....	178
<b>Pavlov S., Nikitchenko Y., Tykhonovska M.</b> THE IMPACT OF THE CHEMICAL AGENTS OF DIFFERENT PHARMACOLOGICAL GROUPS ON THE KLOTRO PROTEIN CONCENTRATION IN THE CARDIOMYOCYTE AND NEUROCYTE SUSPENSION IN 120 MINUTE HYPOXIA IN VITRO.....	184
<b>Gorgiladze N., Zoidze E., Gerzmava O.</b> IMPLEMENTATION OF QUALITY VALIDATION INDICATORS IN HEALTHCARE.....	188
<b>Mikava N., Vasadze O.</b> PROSPECTS IN MEDICAL TOURISM IN GEORGIA- CHALLENGES, AND BARRIERS IN HEALTHCARE SECTOR.....	194

## MANAGEMENT OF EMOTIONAL DISORDERS IN ELDERLY PATIENTS UNDERGOING SURGICAL TREATMENT OF PROXIMAL FEMORAL FRACTURES

Babalian V., Pastukh V., Sykal O., Pavlov O., Rudenko T., Ryndenko V.

*Kharkiv Medical Academy of Postgraduate Education, Ukraine*

Proximal femoral fractures are a common disease with high actuality. This problem is especially significant for elderly patients. Number of elderly patients with such fractures increases annually, and they are at high risk of receiving such fractures [1]. According to various authors, proximal femoral fractures make 9.00%–45.00% of all skeletal fractures in older patients [2]. High rates of prevalence, disability and mortality due to proximal femoral fractures cause significant economic costs and define the subject of these fractures as an important medical and socio-economic problem [3].

Epidemiological data indicate a progressive increase in such fractures with an increase in age characteristics, and in patients after 50 years, it almost doubles in every 10 years. In countries around the world (USA, Sweden, Norway, Italy, Spain, Great Britain, Canada, Finland, Asia and others), a constant increase in the frequency of such fractures is recorded due to the general aging of the world population and an increase in the prevalence of osteoporosis among the population [4, 5]. According to the latest data from the British National Hip Fracture Database (NHFD), 91.60% of such fractures are recorded in patients older than 70 years, most of which (72.00%) are women [6]. All over the world, the prevalence of such fractures in the female population compared with male is noted [7, 8]. The ratio of men to women is approximately 1: 3 with slight fluctuations in different countries [9].

According to prognosis, the number of proximal femoral fractures cases will progressively grow [10] and will reach 4.5 million cases annually [11] or even 6.26 million [12] by 2050. According to the National Osteoporosis Fund, by 2040 more than 500,000 acute hip fractures will be recorded annually. It is stated that government expenditures will constantly increase due to this problem as a result of increased life expectancy [13]. Currently, socio-economic costs constitute about 0.10% of all diseases worldwide and 1.40% in developed countries [14-16].

For patients themselves, hip fracture is a potentially catastrophic problem due to a significant percentage of negative consequences. According to research, approximately 30.00% of these patients will die within the first year after injury [17], and among those who survive, the vast majority will have long-term medical and social problems that significantly reduce their levels of active lifestyle [18].

In response to the magnitude and significant severity of the problem of treating proximal femoral fractures, many countries have developed national treatment algorithms based on practical results and supported by systematic literature reviews [19-21]. These recommendations point to the need for coordinated multidisciplinary efforts for the effective treatment of hip fractures. Modern models of treatment for such patients (the “Hip Fracture Program” in the UK, the “Orthogeriatric Medical Assistance Model” in Australia and others) fully recognize the necessity and importance of interdisciplinary care in the treatment of such patients [22] to optimize their care [23]. The developed recommendations confirm that effective management of hip fracture treatment must necessarily take into account a coordinated and integrated approach to the patient throughout the entire period of his treatment and rehabilitation.

In addition to the need for a multidisciplinary approach, the effectiveness of treatment depends on the presence of a concomitant pathology and its timely correction. During aging, the human body undergoes significant structural and functional changes in almost all organs and systems: significant metabolic disorders, a decrease in the protective reactions of the body systems and many functional disorders, which leads to the appearance of various concomitant diseases and the development of possible complications of the surgical treatment of hip fractures in the elderly. Polymorbidity (comorbidity) of diseases in elderly patients and their chronicity leads to the development of possible significant complications of surgical treatment [24]. Most often, patients with a hip fracture note the presence of diseases such as diabetes, movement disorders, cardiovascular and other diseases; and in 40.00%, patients report the presence of cognitive impairment [25-27]. The results of systematic reviews indicate a significant possibility of the negative impact of cognitive impairment, emotional disturbances, and dementia on the results of the treatment of hip fractures [28-33].

Most of the studies indicate the actuality of the problem of mental disorders of various origins. This subject is especially relevant for elderly, since in this age group manifestations of a neuropsychiatric nature are significantly increased, and they are at a risk for various mental disorders. This is due to physiological processes intrinsic to the elderly organism [34-36]. In the general population among individuals aged 65, the frequency of dementia is 3.00–7.70%; and for persons over 85 years old - 20.00–45.00% [37-39]. A significant part of cognitive disorders in the elderly age manifests itself with emotional disturbances of the anxiety-depressive spectrum. Often there are cases of a development of a vivid picture of “masked” emotional disturbances provoked by external factors (sudden significant psycho-emotional stressful overload). These “stress-strokes” can be a sudden loss of loved ones, an abrupt change in the familiar environment, the detection of a severe somatic disease, physical injury, the need for long-term treatment or surgery (which is typical for the treatment of a hip fracture) and etc. Such situations can cause significant psychoemotional experiences and sudden anxiety-depressive “bursts”.

In connection with the above, we set the goal of the study: to identify key aspects of the management of emotional disorders in the practice of operative treatment of proximal femoral fractures in elderly patients.

Objectives of the study are:

- to establish the levels of emerging emotional disorders of the anxiety-depressive spectrum in elderly patients undergoing operative treatment of proximal femoral fractures and mechanisms for their correction;

- to analyse the results of drug treatment of emotional disorders, that occur during operative treatment of proximal femoral fractures in elderly patients.

**Material and methods.** 24 patients who needed surgical treatment of proximal femoral fracture and were at risk for the development of psycho-emotional disorders due to the presence of emotional disorders of an anxiety-depressive nature were examined. The presence of such disorders was recorded at the time of admission, before and after surgical treatment using specialized psychodiagnostic techniques. Mini Mental State Examina-

tion (MMSE), modified Hachinski ischemic scale (Hachinski al.), Frontal assessment battery (FAB), Spielberg-Khanin Scale of Reactive and Trait Anxiety, The Zung Self-Rating Depression Scale were used.

**Results and discussion.** Elderly patients with proximal femoral fractures were screened for the presence of cognitive disorders and the degree of cognitive impairment using the MMSE scale at the time of admission. The etiology of existing cognitive disorders was studied using the modified Khachinsky Ischemic Scale, and the degree of impairment and possible lesion sites were studied using the FAB. After that, the psychodiagnosis was performed using the Spielberg-Khanin Reactive and Trait Anxiety Scale and the The Zung Self-Rating Depression Scale. In the presence of such disorders, the patient was assigned to the risk group for the drug treatment. Using the scales mentioned above, we formed a risk group of 24 patients with proximal femoral fractures and manifestations of cognitive and emotional disorders (Table 1). Male - 9 (37.50%) patients, and female - 15 (62.50%). The average age of all patients was 82.70±1.00 (among men - 81.70±2.10, among women - 83.30±1.00).

To prevent the development of psychopathological symptoms among patients at risk undergoing operative treatment of proximal femoral fracture, drug treatment of cognitive disorders and emotional disturbances of the anxiety-depressive spectrum was

performed. To determine the effectiveness of drug treatment of emotional disorders, two subgroups were formed (I - using drug treatment of cognitive and emotional disorders and II - without drug treatment) - 12 patients in each.

Due to the presence of high stressful tension in patients at risk due to the need for long-term treatment, we studied the levels of anxiety (reactive and trait) and depressive levels in patients at the time of admission to the clinic. According to the levels of reactive anxiety (occurs as a reaction to stressors, most often socio-psychological), moderate and high levels are noted (Table 2). Most patients at risk had a high level of reactive anxiety - 14 (58.33%) patients (equally in subgroups I and II - 7 (29.17%) patients in each) compared with moderate levels (10 (41.67%) patients) - equally I and II subgroups (5 (20.83%) patients in each). In the subgroups I and II with moderate and high levels of reactive anxiety, a predominance of female patients was noted: subgroup I – female patients with a moderate level - 3 (12.50%), and with a high level - 5 (20.83%); subgroup II – 3 (12.50%) and 4 (16.67%) female patients respectively.

Among all patients at risk (Table 3), the majority of patients with a high level - 14 (58.33%) patients (8 (33.33%) in subgroup I and 6 (25.00%) in II subgroup) were detected, based on the levels of trait anxiety (gives an idea of a person's tendency to be affected by certain stressors due to personality traits). Patients

Table 1. Grouping the examined patients by sex and age characteristics (abs.n.,%)

Gender		Average age	
Male	Female	Male	Female
9 (37,50%)	15 (62,50%)	81,70±2,10	83,30±1,00
In total	24 (100,00%)	82,70±1,00	

Table 2. Levels of reactive anxiety in patients at risk at time of admission (abs.n.,%)

Patient subgroups		Level of reactive anxiety							
		Low		Moderate		High		In total	
		abs.n.	%	abs.n.	%	abs.n.	%	abs.n.	%
I	Male	-	-	2	8,33	2	8,33	4	16,67
	Female	-	-	3	12,50	5	20,83	8	33,33
	In total	-	-	5	20,83	7	29,17	12	50,00
II	Male	-	-	2	8,33	3	12,50	5	20,83
	Female	-	-	3	12,50	4	16,67	7	29,17
	In total	-	-	5	20,83	7	29,17	12	50,00
In total		-	-	10	41,67	14	58,33	24	100,00

Table 3. Levels of trait anxiety in patients at risk at the time of admission (abs.n.,%)

Patient subgroups		Level of trait anxiety							
		Low		Moderate		High		In total	
		abs.n.	%	abs.n.	%	abs.n.	%	abs.n.	%
I	Male	-	-	1	4,17	3	12,50	4	16,67
	Female	-	-	3	12,50	5	20,83	8	33,33
	In total	-	-	4	16,67	8	33,33	12	50,00
II	Male	-	-	2	8,33	3	12,50	5	20,83
	Female	-	-	4	16,67	3	12,50	7	29,17
	In total	-	-	6	25,00	6	25,00	12	50,00
In total		-	-	10	41,67	14	58,33	24	100,00

with a moderate level were 10 (41.67%) patients - 4 (16.67%) and 6 (25.00%), in subgroups I and II respectively.

In two subgroups, the predominance of female patients was established: I - 3 (12.50%) and 5 (20.83%), moderate and high levels of anxiety; Subgroup II - 4 (16.67%) and 3 (12.50%) female patients respectively.

According to the results of the study of depressive levels of patients at risk, the presence of a depressive state of varying severity was observed (Table 4).

Subdepressive state - 18 (75.00%) patients and mild depression - 6 (25.00%) patients. Differences between the examined patients in subgroups I and II have not been established. The prevalence of female patients in comparison with male patients was noted: subgroup I - 2 (8.33%) and 6 (25.00%) female patients (mild depression and subdepressive state respectively); Subgroup II - 2 (8.33%) and 5 (20.83%) female patients, respectively.

The presence of limit levels between moderate and high levels of anxiety and manifestations of mild depression and a subde-

Table 4. Levels of depression in patients at risk at the time of admission (abs.n.,%)

Patient subgroups		Levels of depression							
		No depression		Mild depression		Subdepressive state		In total	
		abs.n.	%	abs.n.	%	abs.n.	%	abs.n.	%
I	Male	-	-	1	4,17	3	12,50	4	16,67
	Female	-	-	2	8,33	6	25,00	8	33,33
	In total	-	-	3	12,50	9	37,50	12	50,00
II	Male	-	-	1	4,17	4	16,67	5	20,83
	Female	-	-	2	8,33	5	20,83	7	29,17
	In total	-	-	3	12,50	9	37,50	12	50,00
In total		-	-	6	25,00	18	75,00	24	100,00

Table 5. Levels of reactive anxiety in patients at risk at the time of admission (M±m)

Patient subgroups		Levels of reactive anxiety
I	Male	43,61±0,03
	Female	42,24±0,12
	In total	42,92±0,07
II	Male	42,18±0,11*
	Female	42,05±0,07*
	In total	42,12±0,10*
In total		42,52±0,05

notes: \* - differences are reliable between subgroups I and II

Table 6. Levels of trait anxiety in patients at risk at the time of admission (M±m)

Patient subgroups		Levels of trait anxiety
I	Male	42,18±0,12
	Female	43,41±0,19
	In total	42,80±0,11
II	Male	41,14±0,08*
	Female	42,19±0,12*
	In total	41,67±0,04*
In total		42,23±0,07

notes: \* - differences are reliable between subgroups I and II

Table 7. Levels of depression in patients at risk at the time of admission (M±m)

Patient subgroups		Levels of depression
I	Male	58,16±0,14
	Female	59,14±0,07
	In total	58,65±0,12
II	Male	58,19±0,08*
	Female	58,16±0,03*
	In total	58,18±0,11*
In total		51,41±0,07

notes: \* - differences are reliable between subgroups I and II

pressive state in patients at risk is noted, according to the general levels of anxiety and depression (Tables 5-7).

The obtained results are explained by the development of psychoemotional disorders of the anxiety-depressive spectrum under the influence of awareness of the need for surgical treatment and a long postoperative period, the necessity of undergoing rehabilitation measures, a significant decrease in the quality of life, the need for outside care, etc., which are significant stressful factors.

When conducting drug treatment of emotional disorders of the anxiety-depressive spectrum in the patient subgroup I, a significant improvement in the emotional background was observed. A decrease in general vulnerability and irritability was observed amid drug correction (subgroup I) during surgical treatment; a significant decrease in the affective concentration of attention on the illness and the need for surgical treatment; absence of loss of autopsychic and allopsychic orientation; a significant increase in mood and overall emotional background; the development of an optimistic orientation; reduction (and in some patients a complete absence) of signs of anxiety, fear and agitation; the complete absence of thoughts of auto-aggressive or suicidal orientation.

A deterioration of existing anxiety-depressive disorders was noted in patients at risk in subgroup II (did not receive drug treatment of emotional disorders): increased general vulnerability and irritability, affective concentration of attention on trauma and the need for long-term surgical treatment; in some patients, there was a short-term psychotic loss of autopsychic and allopsychic orientation; general emotional background worsened; there was a significant deterioration in mood and the development of a significant pessimistic emotional background; dissatisfaction with surrounding events and individuals was noted; increased manifestations of anxiety, fear and agitation; some patients developed suicidal thoughts and auto-aggressive behavior. These characteristics were confirmed by the results of a study conducted using the Spilberger-Khanin Scale of Reactive and Trait Anxiety and The Zung Self-Rating Depression Scale - Table. 8, 9.

According to the results of the study of the levels of reactive anxiety in 3 (12.5%) patients in subgroup I, a decrease in the level of anxiety from high to moderate (1 (4.17%) male and 2 (8.33%) female patients) was detected. According to the results of the study of the levels of trait anxiety, 3 (12.5%) patients in subgroup I noted a decrease in the level of anxiety from high

Table 8. Levels of reactive and trait anxiety in patients at risk at the operative stage (abs. n %)

Patient subgroups		Levels of reactive anxiety									
		Low		Moderate		High		In total			
		abs.n.	%	abs.n.	%	abs.n.	%	abs.n.	%		
I	Male	-	-	3	12,50	1	4,17	4	16,67		
	Female	-	-	5	20,83	3	12,50	8	33,33		
	In total	-	-	8	33,33	4	16,67	12	50,00		
II	Male	-	-	2	8,33	3	12,50	5	20,83		
	Female	-	-	3	12,50	4	16,67	7	29,17		
	In total	-	-	5	20,83	7	29,17	12	50,00		
In total		-	-	13	54,17	11	45,83	24	100,00		
Patient subgroups		Levels of trait anxiety									
		I	Male	-	-	3	12,50	1	4,17	4	16,67
			Female	-	-	4	16,67	4	16,67	8	33,33
In total	-		-	7	29,17	5	20,83	12	50,00		
II	Male	-	-	2	8,33	3	12,50	5	20,83		
	Female	-	-	4	16,67	3	12,50	7	29,17		
	In total	-	-	6	25,00	6	25,00	12	50,00		
In total		-	-	13	54,17	11	45,83	24	100,00		

Table 9. Levels of depression in patients at risk at the operative stage (abs.n.,%)

Patient subgroups		Levels of depression							
		No depression		Mild depression		Subdepressive state		In total	
		abs.n.	%	abs.n.	%	abs.n.	%	abs.n.	%
I	Male	-	-	2	8,33	2	8,33	4	16,67
	Female	-	-	4	16,67	4	16,67	8	33,33
	In total	-	-	6	25,00	6	25,00	12	50,00
II	Male	-	-	1	4,17	4	16,67	5	20,83
	Female	-	-	2	8,33	5	20,83	7	29,17
	In total	-	-	3	12,50	9	37,50	12	50,00
In total		-	-	9	37,50	15	62,50	24	100,00

Table 10. Psychopathological disorders in patients at risk during operative treatment (abs.n.%)

Patient subgroups		Psychopathological disorders					
		absent		exist		In total	
		abs.n.	%	abs.n.	%	abs.n.	%
I	Male	4	16,67	-	-	4	16,67
	Female	8	33,33	-	-	8	33,33
	In total	12	50,00	-	-	12	50,00
II	Male	2	8,33	3	12,50	5	20,83
	Female	2	8,33	5	20,83	7	29,17
	In total	4	16,67	8	33,33	12	50,00
In total		16	66,67	8	33,33	24	100,00

Table 11. Psychopathological manifestations in patients at risk during operative treatment (abs.n.%)

Patient subgroups		Main psychopathological disorders										In total	
		*		**		***		****		*****			
		abs.n.	%	abs.n.	%	abs.n.	%	abs.n.	%	abs.n.	%	abs.n.	%
I	Male	-	-	-	-	-	-	-	-	-	-	4	16,67
	Female	-	-	-	-	-	-	-	-	-	-	8	33,33
	In total	-	-	-	-	-	-	-	-	-	-	12	50,00
II	Male	3	12,50	2	8,33	1	4,17	3	12,50	3	12,50	5	20,83
	Female	5	20,83	2	8,33	2	8,33	5	20,83	5	20,83	7	29,17
	In total	8	33,33	4	16,67	3	12,50	8	33,33	8	33,33	12	50,00
In total		8	33,33	4	16,67	3	12,50	8	33,33	8	33,33	24	100,0

notes: \* - affective concentration of attention; \*\* - auto-psyhic and allopsyhic disorientation; \*\*\* - suicidal thoughts; \*\*\*\* - auto-aggressive manifestations; \*\*\*\*\* - aggressive behavior

to moderate (2 (8.33%) male and 1 (4.17%) female patients). According to the levels of depression in 3 (12 50%) patients in subgroup I (1 (4.17%) male and 2 (8.33%) female patients), depressive symptoms decreased to the level of mild depression.

In the second subgroup of the risk group (did not receive drug treatment of emotional disorders), a deterioration of the emotional background was noted up to the appearance of various psychopathological manifestations (Table 10) due to significant psychoemotional overstrain as a result of the necessity of a long significant limitation of physical activity, a significant rehabilitation postoperative period, long term restriction of everyday activity, and significant limitations in the quality of life. 8 patients (33.33%) - 3 (12.50%) male and 5 (20.83%) female patients in the subgroup II noted the appearance of psychopathological symptoms during surgical treatment. In the subgroup I, during drug treatment amid surgical treatment, none of the patients showed the appearance of psychopathological symptom. (Table 10).

The study determined main psychopathological disorders present in the subgroup II, which emerged due to significant psychological overstrain as a result of the necessity of operative treatment (Table 11).

An affective concentration of attention on own problem (the necessity of a long surgical treatment and a significant postoperative rehabilitation period) was noted - 8 (33.33%) patients (3 (12.50%) male and 5 (20.83%) female patients); autopsychic and allopsyhic disorientation (4 (16.67%) patients - 2 (8.33%) male and - 2 (8.33%) female patients); suicidal thoughts (3 (12.50%) patients - 1 (4.17%) male and 2 (8.33%) female patients) and auto-aggressive manifestations with aggressive behavior - in 8 (33.33%) patients (3 (12.50%) male and 5 (20.83%) female patients).

**Conclusions.** As a result of determining the key aspects of the management of emotional disorders in the practice of operative treatment of proximal femoral fractures in elderly patients:

1. The presence of moderate (41.67%) and high (58.33%) levels of reactive and trait anxiety in elderly patients with proximal femoral fractures and emotional disorders is noted. The presence of a depressive state of varying severity was recorded: a subdepressive state (75.00%) and mild depression (25.00%). The general levels of reactive and trait anxiety and depressive disorders showed the presence of limit levels between moderate, high (reactive and trait anxiety) and mild depression and sub-depressive state (depressive disorders): reactive anxiety (42.52±0.05), trait anxiety (42.23±0.07) and depressive disorders (51.41±0.07).

2. It is proved that the treatment of emotional disturbances of the anxiety-depressive spectrum lead to a significant levelling in existing psychological changes (a decrease in the increased general vulnerability and irritability; a significant decrease in the affective concentration of attention on own disease and the necessity of surgical intervention; absence of loss of autopsychic and allopsyhic orientation; a significant increase in mood and overall emotional background; the appearance of an optimistic orientation; decrease (or complete absence) of signs of anxiety, fear and agitation; the complete absence of thoughts of auto-aggressive or suicidal orientation).

3. The deterioration of the existing emotional disorders of the anxiety-depressive spectrum among patients at risk in the absence of drug treatment has been established: increased psychological changes; increase in general vulnerability, irritability and affective focus on trauma and the necessity of long-term surgical treatment; short-term psychotic loss of autopsychic and allopsyhic orientation (in some patients); deterioration of the

emotional background and mood and the development of a significant pessimistic orientation; dissatisfaction with surrounding events and individuals; increased manifestations of anxiety, fear and agitation; the appearance of suicidal thoughts and auto-aggressive manifestations (in some patients).

## REFERENCES

1. Alan M. Rathbun, Michelle D. Shardell, Elizabeth A. Stuart, Ann L. Gruber-Baldini, Denise Orwig, Glenn V. Ostir, Gregory E. Hicks, Marc C. Hochberg, Jay Magaziner Persistence of Depressive Symptoms and Gait Speed Recovery in Older Adults after Hip Fracture. // *Int J Geriatr Psychiatry*. 2018 Jul; 33(7): 875–882. Published online 2018 Feb 26. doi: 10.1002/gps.4864
2. Alan M. Rathbun, Michelle Shardell, Denise Orwig, Ann L. Gruber-Baldini, Glenn Ostir, Gregory E. Hicks, Ram R. Miller, Marc C. Hochberg, Jay Magaziner Effects of Pre-Fracture Depressive Illness and Post-Fracture Depressive Symptoms on Physical Performance Following Hip Fracture // *J Am Geriatr Soc*. 2016 Nov; 64(11): e171–e176. doi: 10.1111/jgs.14487
3. Alexiou KI, Roushias A, Varitimidis SE, Malizos KN. Quality of life and psychological consequences in elderly patients after a hip fracture: a review. // *Clin Interv Aging*. 2018 Jan 24;13:143-150. doi: 10.2147/CIA.S150067. PMID: 29416322; PMCID: PMC5790076.
4. Analysis of the hip fracture records of a central training and research hospital by selected characteristics / D. Cankaya et al. // *Turkish J. of Medical Sciences*. 2016. Vol. 46 (1). P. 35–41. doi: 10.3906/sag-1406-150
5. Australian and New Zealand Guideline for Hip Fracture Care. Sep 2014. URL: [www.anzhhf.org/guidelines](http://www.anzhhf.org/guidelines)
6. Bernardo J. Reyes, Daniel A. Mendelson, Nadia Mujahid, Postacute Management of Older Adults Suffering an Osteoporotic Hip Fracture: A Consensus Statement From the International Geriatric Fracture Society Geriatr Orthop Surg Rehabil. 2020; 11: 2151459320935100. Published online 2020 Jul 16.
7. Clift B., Tibrewal S. B. Fractures of the Lower Limb (includes foot). Available from. URL: <https://www.researchgate.net/publication/254506497> Fractures of the Lower Limb includes foot Accessed: May 30, 2015
8. Cristancho P, Lenze EJ, Avidan MS, Rawson KS. Trajectories of depressive symptoms after hip fracture. // *Psychol Med*. 2016;46(7):1413-1425. doi:10.1017/S0033291715002974
9. Dautel A, Eckert T, Gross M, et al. Multifactorial intervention for hip and pelvic fracture patients with mild to moderate cognitive impairment: study protocol of a dual-centre randomised controlled trial (OF-CARE). // *BMC Geriatr*. 2019;19(1):125. Published 2019 Apr 30. doi:10.1186/s12877-019-1133-z
10. Epidemiological study of the effects of gender, age, mobility and time of injury on proximal femoral fractures [Czech] / L. Zelenka et al. // *Acta Chirurgiae Orthopaedicae et Traumatologiae Cechoslovaca*. 2018. Vol. 85 (1). P. 40–45.
11. Fernandez M. A., Griffin X. L., Costa M. L. Management of hip fracture // *Br. Med. Bulletin*. 2015. Vol 115. P. 165–172. doi: 10.1093/bmb/ldv036
12. Lauren A. Beaupre, Ellen F. Binder, Ian D. Cameron, et al. Maximising functional recovery following hip fracture in frail seniors. *Best Pract Res Clin Rheumatol*. 2013 Dec; 27(6): 771–788. doi: 10.1016/j.berh.2014.01.001
13. Lind J, Mahler M. A systematic mixed methods review: Recovering from a hip fracture in a health promoting perspective. // *Nurs Open*. 2018;6(2):313-329. Published 2018 Nov 18. doi:10.1002/nop.2.214
14. Magaziner J, Chiles N, Orwig D. Recovery after Hip Fracture: Interventions and Their Timing to Address Deficits and Desired Outcomes—Evidence from the Baltimore Hip Studies. // *Nestle Nutr Inst Workshop Ser*. 2015;83:71-81. doi: 10.1159/000382064. Epub 2015 Oct 20. PMID: 26484873; PMCID: PMC5494960.
15. Management of hip fractures in the elderly / K. C. Roberts et al. // *J. Am Acad. Orthop. Surg*. 2015. Vol. 23. P. 131–137.
16. Management of hip fracture in older people. A national clinical guideline // *Scottish Intercollegiate Guidelines Network (SIGN)*, 2009. URL: [www.sign.ac.uk](http://www.sign.ac.uk)
17. Mattisson L., Bojan A., Enocson A. Epidemiology, treatment and mortality of trochanteric and subtrochanteric hip fractures: data from the Swedish fracture register // *BMC Musculoskelet Disorders*. 2018. Vol. 19 (1). P. 369. doi: 10.1186/s12891-018-2276-3
18. McGilston KS, Chu CH, Naglie G, van Wyk PM, Stewart S, Davis AM. Factors Influencing Outcomes of Older Adults After Undergoing Rehabilitation for Hip Fracture. // *J Am Geriatr Soc*. 2016;64(8):1601-1609. doi:10.1111/jgs.14297
19. Mundi S., Chaudhry H., Bhandari M. Systematic review on the inclusion of patients with cognitive impairment in hip fracture trials: a missed opportunity? // *Can J. Surg*. 2014. Vol. 57 (4). E141–E145. doi: 10.1503/cjs.023413
20. Nemes S, Lind D, Cnudde P, et al. Relative survival following hemi-and total hip arthroplasty for hip fractures in Sweden. // *BMC Musculoskelet Disord*. 2018;19(1):407. Published 2018 Nov 23. doi:10.1186/s12891-018-2321-2
21. On epidemiology of fractures and variation with age and ethnicity / N. C. Harvey et al. // *Bone*. 2016. Vol. 93. P. 230–231. doi: 10.1016/j.bone.2016.07.011
22. Rapp K, Büchele G, Dreinhöfer K, Bücking B, Becker C, Benzinger P. Epidemiology of hip fractures : Systematic literature review of German data and an overview of the international literature. *Epidemiologie von Hüftfrakturen : Systematisches Literaturreview deutscher Daten und ein Überblick über die internationale Literatur*. // *Z Gerontol Geriatr*. 2019;52(1):10-16. doi:10.1007/s00391-018-1382-z
23. Rathbun AM, Shardell M, Orwig D, et al. Effects of Prefracture Depressive Illness and Postfracture Depressive Symptoms on Physical Performance After Hip Fracture. // *J Am Geriatr Soc*. 2016;64(11):e171-e176. doi:10.1111/jgs.14487
24. Rathbun AM, Shardell MD, Stuart EA, et al. Persistence of depressive symptoms and gait speed recovery in older adults after hip fracture. // *Int J Geriatr Psychiatry*. 2018 Jul;33(7):875-882. doi: 10.1002/gps.4864. Epub 2018 Feb 26. PMID: 29480573; PMCID: PMC5995625.
25. Rawson KS, Dixon D, Nowotny P, et al. Association of functional polymorphisms from brain-derived neurotrophic factor and serotonin-related genes with depressive symptoms after a medical stressor in older adults. // *PLoS One*. 2015 Mar 17;10(3):e0120685. doi: 10.1371/journal.pone.0120685. Erratum in: *PLoS One*. 2015;10(4):e0126451. PMID: 25781924; PMCID: PMC4363147.
26. Rathbun AM, Magaziner J, et al. Older men who sustain a hip fracture experience greater declines in bone mineral density at the contralateral hip than non-fractured comparators. // *Osteoporos Int*. 2018;29(2):365-373. doi:10.1007/s00198-017-4280-0
27. Recovery of healthrelated quality of life in a United Kingdom hip fracture population: the Warwick Hip Trauma Evaluation — a prospective cohort study / X. L. Griffin et al. // *Bone Joint J*. 2015. Vol. 97-B. P. 372–382.
28. Reyes BJ, Mendelson DA, Mujahid N, et al. Postacute Management of Older Adults Suffering an Osteoporotic Hip Fracture: A Consensus Statement From the In-



- ternational Geriatric Fracture Society. *Geriatr Orthop Surg Rehabil.* 2020;11:2151459320935100. Published 2020 Jul 16. doi:10.1177/2151459320935100
29. Ritchie CS, Kelley AS, Stijacic Cenzer I, Smith AK, Wallhagen ML, Covinsky KE. High Levels of Geriatric Palliative Care Needs in Hip Fracture Patients Before the Hip Fracture. // *J Pain Symptom Manage.* 2016;52(4):533-538. doi:10.1016/j.jpainsymman.2016.07.003
30. Scheffers-Barnhoorn MN, van Haastregt JC, Schols JM, et al. A multi-component cognitive behavioural intervention for the treatment of fear of falling after hip fracture (FIT-HIP): protocol of a randomised controlled trial. // *BMC Geriatr.* 2017;17(1):71. Published 2017 Mar 20. doi:10.1186/s12877-017-0465-9
31. Seematter-Bagnoud L, Frascarolo S, Büla CJ. How much do combined affective and cognitive impairments worsen rehabilitation outcomes after hip fracture ?. // *BMC Geriatr.* 2018;18(1):71. Published 2018 Mar 12. doi:10.1186/s12877-018-0763-x
32. Secular trends in hip fractures worldwide: opposing trends east versus west / G. Ballane, J. A. Cauley, M. M. Luckey, Gel-H. Fuleihan // *The J. of Bone and Mineral Research.* 2014. № 29 (8). P. 1745–1755. doi: 10.1002/jbmr.2218
33. Shibasaki K, Asahi T, Mizobuchi K, Akishita M, Ogawa S. Rehabilitation strategy for hip fracture, focused on behavioral psychological symptoms of dementia for older people with cognitive impairment: A nationwide Japan rehabilitation database. // *PLoS One.* 2018;13(7):e0200143. Published 2018 Jul 5. doi:10.1371/journal.pone.0200143
34. Stobbe J, Wierdsma AI, Kok RM, et al. The effectiveness of assertive community treatment for elderly patients with severe mental illness: a randomized controlled trial. // *BMC Psychiatry.* 2014;14:42. Published 2014 Feb 15. doi:10.1186/1471-244X-14-42
35. The management of hip fracture in adults. March 2014. URL: [www.guidance.nice.org.uk/cg124](http://www.guidance.nice.org.uk/cg124)
36. Trends in hip fracture rates in Taiwan: a nationwide study from 1996 to 2010 / T. Y. Wu et al. // *Osteoporosis International.* 2017. Vol. 28 (2). P. 653–665. doi: 10.1007/s00198-016-3783-4
37. Tseng, Ming-Yueh et al. Effects of interventions on trajectories of health-related quality of life among older patients with hip fracture: a prospective randomized controlled trial. // *BMC Musculoskeletal Disorders* // 2016. vol. 17 114. doi:10.1186/s12891-016-0958-2
38. Van Steenberghe, Liza N et al. More than 95% completeness of reported procedures in the population-based Dutch Arthroplasty Register. // *Acta orthopaedica* vol. 86,4 (2015): 498-505. doi:10.3109/17453674.2015.1028307
39. Xu G, Chen G, Zhou Q, Li N, Zheng X. Prevalence of Mental Disorders among Older Chinese People in Tianjin City. *Can J Psychiatry.* 2017;62(11):778-786. doi:10.1177/0706743717727241

## SUMMARY

### MANAGEMENT OF EMOTIONAL DISORDERS IN ELDERLY PATIENTS UNDERGOING SURGICAL TREATMENT OF PROXIMAL FEMORAL FRACTURES

Babalian V., Pastukh V., Sykal O., Pavlov O., Rudenko T., Ryndenko V.

*Kharkiv Medical Academy of Postgraduate Education, Ukraine*

The goal of our research was to study the to identify key aspects of the management of emotional disorders in the practice

of operative treatment of proximal femoral fractures in elderly patients.

The study was conducted with 24 patients who needed surgical treatment of proximal femoral fracture and were at risk for the development of psycho-emotional disorders due to the presence of emotional disorders of an anxiety-depressive nature were examined. The presence of such disorders was recorded at the time of admission, before and after surgical treatment using specialized psychodiagnostic techniques. Mini Mental State Examination, modified Hachinski ischemic scale, Frontal assessment battery, Spielberg-Khanin Scale of Reactive and Trait Anxiety, The Zung Self-Rating Depression Scale were used.

Results of the clinical study of the Most patients at risk had a high level of reactive anxiety - 14 (58.33%) patients (equally in subgroups I and II - 7 (29.17%) patients in each) compared with moderate levels (10 (41.67%) patients) - equally I and II subgroups (5 (20.83%) patients in each). In the subgroups I and II with moderate and high levels of reactive anxiety, a predominance of female patients was noted: subgroup I – female patients with a moderate level - 3 (12.50%), and with a high level -5 (20.83%); subgroup II – 3 (12.50%) and 4 (16.67%) female patients respectively. As a result of determining the key aspects of the management of emotional disorders in the practice of operative treatment of proximal femoral fractures in elderly patients: the presence of moderate (41.67%) and high (58.33%) levels of reactive and trait anxiety in elderly patients with proximal femoral fractures and emotional disorders is noted. The presence of a depressive state of varying severity was recorded: a subdepressive state (75.00%) and mild depression (25.00%). The general levels of reactive and trait anxiety and depressive disorders showed the presence of limit levels between moderate, high (reactive and trait anxiety) and mild depression and sub-depressive state (depressive disorders): reactive anxiety (42.52±0.05), trait anxiety (42.23±0.07) and depressive disorders (51.41±0.07).

It is proved that the treatment of emotional disturbances of the anxiety-depressive spectrum lead to a significant levelling in existing psychological changes. The deterioration of the existing emotional disorders of the anxiety-depressive spectrum among patients at risk in the absence of drug treatment has been established.

**Keywords:** management, emotional disorders, trait anxiety, reactive anxiety, levels of depression, proximal femoral fractures.

## РЕЗЮМЕ

### МЕНЕДЖМЕНТ ЭМОЦИОНАЛЬНЫХ РАССТРОЙСТВ ПРИ ХИРУРГИЧЕСКОМ ЛЕЧЕНИИ ПЕРЕЛОМОВ ПРОКСИМАЛЬНОГО ОТДЕЛА БЕДРА У БОЛЬНЫХ ПОЖИЛОГО И СТАРЧЕСКОГО ВОЗРАСТА

Бабалян В.А., Пастух В.В., Сыкал А.А., Павлов А.Д., Руденко Т.А., Рынденко В.Г.

*Харьковская медицинская академия последипломного образования, Украина*

Целью исследования явилось определение ключевых аспектов лечения эмоциональных расстройств в практике оперативного лечения переломов проксимального отдела бедренной кости у пожилых пациентов.

Обследовано 24 пациента, которые находились в группе риска по развитию психоэмоциональных расстройств вви-

ду наличия эмоциональных расстройств тревожно-депрессивного характера и нуждались в хирургическом лечении перелома проксимального отдела бедренной кости. Нарушения были зарегистрированы при поступлении, до и после хирургического лечения с использованием специализированных психодиагностических методик. Использовались мини-экзамен психического состояния, модифицированная ишемическая шкала Хачинского, батарея фронтальных оценок, шкала реактивной и личностной тревожности Спилберга-Ханина, шкала самооценки депрессии Зунга.

Для определения эффективности медикаментозного лечения эмоциональных расстройств сформированы две группы (I - медикаментозное лечение когнитивных и эмоциональных расстройств и II - без медикаментозного лечения) по 12 пациентов в каждой.

Анализ эмоциональных расстройств при хирургическом лечении перелома проксимального отдела бедренной кости у больных пожилого и старческого возраста выявил, что большинство пациентов имели высокий уровень реактивной тревожности - 14 (58,33%) пациентов - поровну в I и II группах, по 7 (29,17%) пациентов в каждой в сравнении со средним уровнем - 10 (41,67%) больных, поровну в I и II группах, по 5 (20,83%) пациентов в каждой. В I и II группах

со средним и высоким уровнем реактивной тревожности отмечалось преобладание больных женского пола: I группа - со средним уровнем 3 (12,50%), с высоким - 5 (20,83%); II группа - 3 (12,50%) и 4 (16,67%) пациентки, соответственно. В практике оперативного лечения переломов проксимального отдела бедренной кости у пожилых пациентов выявлены умеренный (41,67%) и высокий (58,33%) уровни реактивной и личностной тревожности и депрессивное состояние разной степени тяжести - субдепрессивное состояние (75,00%) и легкая депрессия (25,00%). Анализ уровней реактивной и личностной тревожности и депрессивных расстройств выявил наличие предельных уровней между умеренной, высокой (реактивная и личностная тревожность) и легкой депрессией и субдепрессивным состоянием (депрессивные расстройства): реактивная тревожность -  $42,52 \pm 0,05$ , личностная тревожность -  $42,23 \pm 0,07$  и депрессивные расстройства -  $51,41 \pm 0,07$ . Лечение эмоциональных расстройств тревожно-депрессивного спектра приводит к значительному нивелированию существующих психологических изменений. Наблюдается обострение существующих эмоциональных расстройств тревожно-депрессивного спектра у пациентов группы риска при отсутствии медикаментозного лечения.

#### რეზიუმე

ემოციური დარღვევების მენჯმენტი ბარძაყის ძვლის პროქსიმალური ნაწილის მოტეხილობის ქირურგიული მკურნალობის დროს ხანდაზმულებსა და მოხუცებში

ვ.ბაბალიანი, ვ.პასტუხი, ა.სიკალი, ა.პავლოვი, ტ.რუდენკო, ვ.რინდენკო

ხარკოვის დიპლომის შემდგომი განათლების სამედიცინო აკადემია, უკრაინა

კვლევის მიზანს წარმოადგენდა ემოციური დარღვევების მკურნალობის საკვანძო ასპექტების განსაზღვრა ბარძაყის ძვლის პროქსიმალური ნაწილის მოტეხილობის ქირურგიული მკურნალობის დროს ხანდაზმულ პაციენტებში.

გამოკვლეულია 24 პაციენტი შფოთვის-დეპრესიული ხასიათის ემოციური დარღვევებით, რომლებიც იმყოფებოდა ფსიქოემოციური დარღვევების განვითარების რისკის ჯგუფში და ესაჭიროებოდა ბარძაყის ძვლის პროქსიმალური ნაწილის მოტეხილობის ქირურგიული მკურნალობა. დარღვევები პაციენტის შემოსვლისას, ქირურგიული მკურნალობამდე და მის შემდეგ რეგისტრირდებოდა სპეციალიზებული ფსიქოსადიაგნოსტიკო მეთოდების გამოყენებით: ფსიქიკური მდგომარეობის მინი-გამოცდა, ხანისის მოდიფიცირებული იშემიური სკალა, ფრონტალური შეფასებების ჯგუფი, სპილბერგის და ხანისის რეაქტიული და პიროვნული შფოთვის სკალა, ზუნგის დეპრესიის თვითშეფასების სკალა.

ემოციური დარღვევების ანალიზით ბარძაყის ძვლის პროქსიმალური ნაწილის მოტეხილობის ქირურგიული მკურნალობის დროს ხანდაზმულებსა და მოხუცებში გამოვლინდა, რომ რისკის ჯგუფის პაციენტების უმეტესობას ჰქონდა რეაქტიული შფოთვის მაღალი დონე - 14-ს (58,33%) I და II გუფებში, თანაბრად, 7 (29,17%) და 7 (29,17%), საშუალო - 10 (41,67%), I და II გუფებში თანაბრად, 5 (20,83%) და 5

(20,83%). I და II გუფებში რეაქტიული შფოთვის საშუალო და მაღალი დონით სჭარბობდა ქალები: I გუფში საშუალო დონით - 3 (12,50%), მაღალი დონით - 5 (20,83%); II გუფში, შესაბამისად, 3 (12,50%) და 4 (16,67%) პაციენტი. ბარძაყის ძვლის პროქსიმალური ნაწილის მოტეხილობის ქირურგიული მკურნალობის პრაქტიკაში ხანდაზმულ პაციენტებში გამოვლინდა რეაქტიული და პიროვნული შფოთვის სხვადასხვა ხარისხი - ზომიერი (41,67%) და მაღალი (58,33%), ასევე, დეპრესიული მდგომარეობის სხვადასხვა ხარისხი - სუბდეპრესიული მდგომარეობა - 75%, მსუბუქი დეპრესია - 25%.

რეაქტიული და პიროვნული შფოთვის და დეპრესიული დარღვევების ანალიზმა გამოავლინა მოსაზღვრე დონეების არსებობა საშუალო და მაღალ რეაქტიულ პიროვნულ შფოთვის, მსუბუქ დეპრესიასა და სუბდეპრესიულ მდგომარეობას შორის (დეპრესიული დარღვევები): რეაქტიული შფოთვა -  $42,52 \pm 0,05$ , პიროვნული შფოთვა -  $42,23 \pm 0,07$  და დეპრესიული დარღვევები -  $51,41 \pm 0,07$ . ემოციური დარღვევების შფოთვის-დეპრესიული სპექტრის მკურნალობა იწვევს არსებული ფსიქოლოგიური ცვლილებების მნიშვნელოვან ნიველირებას. მედიკამენტური მკურნალობის არარსებობის შემთხვევაში რისკის ჯგუფის პაციენტებში აღინიშნება არსებული ფსიქოლოგიური დარღვევების შფოთვის-დეპრესიული სპექტრის გამწვავება.