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ЕЖЕМЕСЯЧНЫЙ НАУЧНЫЙ ЖУРНАЛ

Медицинские новости Грузии
საქართველოს სამედიცინო სიახლენი

GEORGIAN MEDICAL NEWS

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

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

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

WEBSITE

www.geomednews.com

К СВЕДЕНИЮ АВТОРОВ!

При направлении статьи в редакцию необходимо соблюдать следующие правила:

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

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

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

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

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

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

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

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

7. Фамилии отечественных авторов приводятся в оригинальной транскрипции.

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

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

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

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

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

При нарушении указанных правил статьи не рассматриваются.

REQUIREMENTS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ავტორთა საქურაღებოლ!

რედაქციაში სტატიის წარმოდგენისას საჭიროა დაიცვათ შემდეგი წესები:

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

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

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

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

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

6. ფოტოსურათები უნდა იყოს კონტრასტული; სურათები, ნახაზები, დიაგრამები - დასათაურებული, დანომრილი და სათანადო ადგილას ჩასმული. რენტგენოგრამების 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.

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STRATEGY OF RECONSTRUCTIVE AND RESTORATIVE INTERVENTIONS FOR HAND TISSUE DEFECTS

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Abstract.

The article is devoted to the development of a strategy for reconstructive interventions in wounded after gunshot injuries of the hand with tissue defects, which will improve the anatomical and functional results. During the period from 2019 to 2020, 42 plasty of soft tissue defects of the hand (39 patients) with the use of rotary flaps on perforating and axial vessels were performed in the trauma department of the injury clinic of the National Military Medical Clinical Center «Main Military Clinical Hospital» for plasty of soft tissue defects of the hand, a radial flap was used in 15 (36%), a rotational dorsal forearm flap in 15 (36%), and an insular neurovascular flap in 12 (28%). Evaluation of the immediate (3 places after surgery) and long-term (1 year after surgery) results of treatment of patients with soft tissue defects of the hand who underwent flap transposition, according to the Disability of the arm, shoulder, and hand outcome measure scale (DASH) showed an average value of 32,0 (after 3 months) and 29,4 (after 1 year), which corresponds to good functional results of treatment. The main principle of successful treatment of gunshot wounds is the implementation of primary, repeated surgical treatments followed by early closure of defects. The main factors that determine the surgical tactics are localization, area, and volume of the wound defect.

Key words. Gunshot wounds of the hand, surgical tactics, soft tissue defects.

Introduction.

Limbs with firearm injuries constitute 62-72% of the surgical casualties in the structure of modern combat trauma. Among them, injuries to the hand with soft tissue defects hold a significant place, and their treatment, despite the advancements in military medicine, remains a serious problem [1,2].

The upper limb, including the hand, not only plays a crucial functional role in everyday life but also serves as an important aspect of interpersonal communication. Scientific literature analysis indicates [2-4] that the reconstruction of post-traumatic defects is one of the most discussed aspects in the treatment of individuals with firearm injuries to the hand. The treatment strategy for such patients should consider the characteristic pathomorphological features of firearm injuries, which are characterized not only by the zone of direct tissue destruction caused by the energy of the projectile's impact but also by the presence of primary and secondary necrosis zones. Only after their identification and elimination through multiple subsequent surgical procedures can the application of the controlled negative pressure method enable further reconstructive-plastic interventions for defect replacement [2,4,5].

Free skin grafting with split-thickness and full-thickness autografts continues to be widely used in clinical practice,

not only as a standalone method but also in conjunction with microsurgical tissue complex auto transplantation [6,7]. In isolated form, autodermoplasty is most commonly employed after surgical debridement of firearm injuries to the limbs to close skin wound defects. However, unlike vascularized composite autografts, split-thickness and full-thickness autografts are prone to infection, scar transformation, and cannot provide complete restoration of movements, thereby contributing to the development of contractures. Conversely, the use of axial blood supply flaps, such as radial flaps, allows for the simultaneous reconstruction of hand tissue defects while promoting the functioning of underlying structures [2,5,7]. Therefore, the utilization of flaps with axial blood supply, according to many authors, is the method of choice for tissue defect replacement in the hand. Early tissue defect reconstruction contributes to reducing the risk of infectious complications, preserving the viability of bone fragments, tendons, articular cartilage, vessels, and nerves, as well as optimizing the course of reparative processes [8].

The possibilities for reconstructive restoration of hand soft tissues include healing by secondary intention, split-thickness or full-thickness skin grafts, rotational flaps, perforator flaps, axial flaps, and free flaps [9].

The aim of the study is to develop a strategy for reconstructive interventions in individuals with hand injuries following firearm trauma and tissue defects, which will improve anatomical and functional outcomes.

Materials and methods.

In the trauma department of the Clinic of Injuries at the National Military Medical Clinical Center "Main Military Clinical Hospital" (NMMCC "GMCH"), a total of 42 reconstructions of hand soft tissue defects (39 patients) were performed from 2019 to 2020 using rotational flaps based on perforator and axial vessels. The age of the injured individuals ranged from 19 to 45 years, and all of them were male.

To assess the function of the upper limb, the subjective Disability of the Arm, Shoulder, and Hand Outcome Measure (DASH) was utilized. The main section of the DASH questionnaire consists of 30 items/questions related to the hand's functional status over the past week. Among them, 21 items assess the difficulty in performing various physical activities due to shoulder or hand function limitations, 6 items relate to the severity of certain symptoms, and 3 items pertain to social-role functions. Each item is rated on a 5-point scale from 1 to 5. The total scores for all items are then transformed into a 100-point scale. Therefore, DASH objectively assesses the impairment of the upper limb, ranging from 0 (no disability or good functionality) to 100 (extreme disability) [10].

The study design.

Surgical treatment tactics for patients with hand tissue defects were chosen based on the localization, size, and depth of the defect, taking into account the structures present at the wound base. Each surface (palm or dorsum) of a single finger was considered as one zone, and each phalanx was allocated to a separate subzone. Thus, small hand tissue defects included injuries involving one zone (subzone), medium-sized defects involved two zones (subzones), and large defects involved three or more zones (subzones).

Out of the total number of patients undergoing reconstruction of hand soft tissue defects, radial flaps were used in 15 cases (36%), rotational dorsal flaps of the forearm in 15 cases (36%), and island neurovascular flaps in 12 cases (28%).

Patients underwent repeated surgical wound management, including debridement of non-viable tissues, repeated irrigation of the wound with antiseptic solutions, and the placement and replacement of negative pressure wound therapy systems (as needed) to reduce the wound area, decrease exudation, and "smoothen" the wound surface. Subsequently, the soft tissue defect was closed using flaps based on perforator or axial vessels.

Results and Discussion.

When assessing the immediate (at 3 months post-surgery) and long-term (at 1 year post-surgery) results of treating patients with soft tissue defects of the hand who underwent flap transposition. The DASH questionnaire showed improvement compared to preoperative data. Thus, the average value before surgery was 43,4, and after 3 months 32,0 and 29,4 (after 1 year), which corresponds to good functional results of treatment.

The application of negative pressure wound therapy in tissue defects, as noted in publications and supported by our experience, is not considered an alternative to reconstructive plastic surgery. However, when clear indications are followed, it is regarded as a simple and effective method. It should be used as a preparatory step prior to performing reconstructive interventions. In our opinion, excessive reliance on this method delays the closure of defects within shortened timeframes, hinders functional recovery, and consequently prolongs hospitalization.

Here are the following clinical examples:

Patient S., born in 1994, was hospitalized 5 days after a gunshot wound with the diagnosis of a penetrating gunshot injury of the middle phalanx of the left hand's third finger, with a complex comminuted fracture of the middle phalanx and displacement of the fragments.

At the primary healthcare level, the patient underwent wound debridement and temporary stabilization with situational metal osteosynthesis (Figure 1).

According to the concept of providing specialized trauma care to patients with upper limb injuries, further treatment of the patient was conducted at the Traumatology Department of the National Military Medical Clinical Center "GVKKG." The sutures were removed from the wound, and thorough debridement was performed, resulting in the removal of non-viable bone fragment and soft tissues, and determining the size of the actual soft tissue defect (Figure 2).



Figure 1. Appearance of the wound after the repeat surgical debridement at Level I of medical care.



Figure 2. Appearance of the wound after repeated surgical treatment.



Figure 3. Elevation and transposition of the flap.

In order to close the soft tissue defect and preserve the finger, the patient underwent island neurovascular flap reconstruction using retrograde blood flow (Figure 3). An artificial syndactyly between the third and fourth fingers was created, and the donor site of the fourth finger was covered with a full-thickness skin flap from the anterior surface of the forearm.

Arthrodesis of the distal interphalangeal joint of the third finger was performed using pins and shortening of the middle phalanx (Figure 4).

After 3 weeks, the removal of the artificial syndactyly was performed (Figure 5).

After 8 weeks post-operation, the fixation pin was removed, and the patient returned to work duties (Figure 6).

Patient K., born in 1996, was admitted 30 days after the injury with the diagnosis of scar deformity of the first interdigital space

and palm surface of the first finger of the right hand, with a defect of the second metacarpal bone and damage to the flexor tendon of the first finger following a gunshot through-and-through wound (May 23, 2021). At the primary and secondary levels of medical care, the patient underwent fixation of the gunshot fracture of the second metacarpal bone with external fixation, as well as repeated surgical wound treatments (Figure 7).

The patient underwent bone autografting of the second metacarpal bone and correction of scar deformity in the first interdigital space using a vascularized radial flap (Figure 8).

In order to restore active flexion of the first finger, a replacement of the scar defect on the palmar surface was performed using

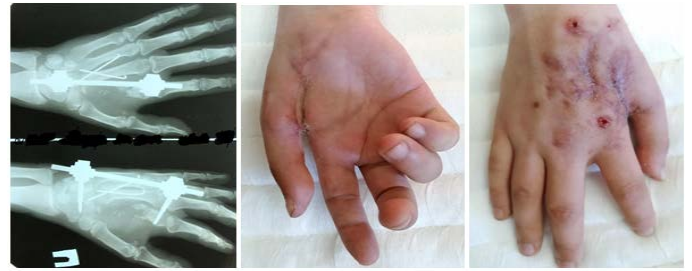


Figure 7. X-rays and the appearance of patient K's hand during the removal of the external fixation device.



Figure 4. Appearance of the hand after the wound reconstruction using island neurovascular flap on retrograde blood flow and situational reosteosynthesis.



Figure 8. Reconstruction of scar defect in the first interdigital space using a rotational radial flap and bone autografting of the second metacarpal bone.



Figure 5. Appearance of the hand after the removal of artificial syndactyly.



Figure 6. Functional result of treatment two months after the surgical intervention.

a neurovascular island flap from the fourth finger. Additionally, a plastic surgery of the long flexor tendon of the first finger was done with the superficial flexor tendon of the fourth finger (Figure 9).

The strategy of reconstructive-restorative interventions in patients with hand tissue defects involved the following steps: the first priority was given to addressing inflammation. After



Figure 9. Stages of the operation and the appearance of patient K.

determining the extent of secondary necrosis during repeated surgical procedures, which involved thorough monitoring of changes in the wound until complete cleansing, there were cases where wound closure with sutures became possible. This often required the preliminary use of controlled negative pressure therapy. In cases where wound closure and defect correction were not feasible using the aforementioned method, various types of plastic surgery were employed:

- Split-thickness or full-thickness skin flap reconstruction
- Rotation skin-fascial flap based on perforator vessels
- Free flap and pedicled (transposition) vascularized skin-muscle or muscle flap
- Composite tissue with vascularized bone on a vascular pedicle

The main principle in the treatment of gunshot wounds remains the performance of primary and repeated surgical procedures followed by early closure of defects. The surgical approach is determined by factors such as the localization, size, and volume of the wound defect.

Conclusion.

Dividing the hand into zones and determining the size of tissue defects allows for an objective selection and application of the appropriate reconstruction method.

The strategy of reconstructive surgical interventions, taking into account the localization and size of hand tissue defects, the condition of surrounding finger tissues, and the anticipation of possible staged surgical procedures, not only yields good treatment outcomes but also enables the injured individuals to return to their duty obligations.

Conflict of interest.

There is no conflict of interest.

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Реферат.

Стратегия реконструктивно-восстановительных вмешательств при дефектах тканей кисти.

Борzych АВ, Лакша АМ, Борzych НА, Лакша АА, Шипунов ВГ. Статья посвящена разработке стратегии реконструктивных вмешательств у раненых после огнестрельных травм кисти с наличием дефектов тканей, что позволит обеспечить улучшение анатомо-функциональных результатов. В травматологическом отделении клиники поврежденных Национального военного медицинского клинического центра «Главный военный клинический госпиталь» в период с 2019 по 2020 годы было проведено 42 пластики дефектов мягких тканей кисти (39 пациентов) с применением ротационных лоскутов на перфорантных и осевых сосудах. Для пластики дефектов мягких тканей кисти у 15 (36%) применен лучевой лоскут, у 15 (36%) - ротационный тыльный лоскут предплечья, у 12 (28%) - островковый нейроваскулярный лоскут. Оценка ближайших (через 3 мес после операции) и отдаленных (через 1 год после операции) результатов лечения пациентов с дефектами мягких тканей кисти, которым была выполнена транспозиция лоскутов, по опроснику исходов и неспособности руки и кисти (DASH) продемонстрировала среднее значение 32,0 (через 3 месяца) и 29,4 (через 1 год), что соответствует хорошим функциональным результатам лечения. Главным принципом успешного лечения огнестрельных ран остается выполнение первичных, повторных хирургических обработок с последующим ранним закрытием дефектов. Основными факторами, определяющими хирургическую тактику, являются - локализация, площадь и объем раневого дефекта.

Ключевые слова: огнестрельные ранения кисти, хирургическая тактика, дефекты мягких тканей