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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 ბაზებიდან.

WEBSITE

www.geomednews.com

К СВЕДЕНИЮ АВТОРОВ!

При направлении статьи в редакцию необходимо соблюдать следующие правила:

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

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

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

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

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

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

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

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

7. Фамилии отечественных авторов приводятся в оригинальной транскрипции.

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

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

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

11. Редакция оставляет за собой право сокращать и исправлять статьи. 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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EFFICIENT RECONSTRUCTION METHOD SELECTION IN LOWER LIP CANCER

M.A. Rustamzade, N.M. Amiraliyev, K.N. Amiraliyev.

Department of Oncology, Azerbaijan Medical University, Baku, Azerbaijan.

Abstract.

Introduction: The primary treatment method for lower lip cancer is surgery. The defects that occur after resections are restored using various methods depending on their localization and size.

Aim: The aim of the study is to estimate the effectiveness of the reconstruction for defects formed after radical resections performed due to lower lip cancer.

Materials and Methods: The clinical outcomes after various reconstruction methods were studied in 102 patients with lower lip cancer who underwent radical resections. The selection of reconstruction methods was based on the size and localization of the resulting defects.

Results: Among the patients included in the study group, the degree of spread of the primary tumor was as follows: T1 - 35 (34.34 %), T2 - 30 (29.5 %), T3 - 27 (26.4%), T4 - 10 (9.8 %).

Conclusion: The effective selection of a reconstruction method for defects following radical resection of lower lip cancer should provide satisfactory functional and aesthetic outcomes in the treatment process.

Key words. Reconstruction, lower lip cancer, surgery.

Introduction.

Lip cancer constitutes 15-30% of oral cavity tumors and is found in the lower lip in 80-85% of cases [1,2].

The standard treatment method for squamous cell carcinoma of the lower lip is surgery [2,3], and the importance of clear resection margins cannot be overstated. Various techniques are also used in reconstructive surgery of lower lip cancer. Over the past 150 years, more than 200 reconstruction options have been described for defects following radical resections of lower lip cancer, but no ideal reconstruction method has been identified [3-5].

The study aimed to standardize the reconstructive surgical approach based on the size and localization of the defects that occurred after radical resection of lower lip cancer.

Materials and Methods.

A total of 102 patients were included in this study. All patients had received treatment at the Oncology Clinic of Azerbaijan Medical University from 2008 to 2023 for squamous cell carcinoma of the lower lip and were monitored during this period. The ages of the patients ranged from 34 to 82, with an average age of 57. All patients included in the study had primary cancer of the lower lip, and patients with recurrent tumors were not included. The spread of the primary tumor was as follows: in 35 patients (34.3%) - T1, in 30 patients (29.5%) - T2, in 27 patients (26.4%) - T3, and 10 patients (9.8%) - T4.

After the surgeries, the size of the resulting defects was classified into 4 groups based on the total length of the lower lip. In 29 patients (28.4%), the defect size was up to 1/3 of the total length of the lower lip, in 31 patients (30.4 %) it was

between 1/3 and 2/3, in 28 patients (27.5%) it was larger than 2/3, and in 14 patients (13.7 %) the total defect of the lip was observed. Depending on the localization of the defect in the lower lip, medial defects were seen in 42 patients (41.2%), paramedian defects in 49 patients (48.0%), and lateral defects in 11 patients (10.8%). In all patients, the reconstructive stage was performed simultaneously with the radical resection of the tumor. Depending on the size of the defect after resection of the primary tumor, the defect was closed with primary sutures in 29 patients (28.4%), with local flaps in 68 patients (66.7 %), and with regional flaps in 5 patients (4.9 %).

Results and Discussion.

The division of reconstruction methods based on the size of the defect is shown in Table 1.

Reconstruction of defects less than 1/3 of the total length of the lower lip.

Defects smaller than 1/3 of the lower lip occurred after radical resection of the tumor in 29 out of 35 patients (82.9%) with T1 cancer. The localization of the defects was as follows: in 12 out of 29 patients (41.4%), the defects were in the medial area of the lower lip; in 13 patients (44.8%), they were in the paramedian area; and in 4 patients (13.8%), they were in the lateral area. In no case did the defect involve the corner of the mouth. Numerous literature data indicate that the reconstruction of defects of this size can be successfully performed with primary closure [6,7]. The main techniques used in this case are the V, Y, and W techniques [8,9]. In our study, for the reconstruction of the 29 defects smaller than 1/3 of the lower lip, the V technique was used in 7 (24.1%) patients, the Y technique in 12 (41.4%) patients, and the W technique in 10 (34.5%) patients (Figure 1).

Reconstruction of defects between 1/3 and 2/3 of the total length of the lower lip.

Defects of this size occurred in 6 out of 35 patients (17.0%) after radical resection of T1 tumors and in 25 out of 30 patients (83.0%) after radical resection of T2 tumors, making a total of 31 patients. Local flaps are primarily used in the reconstruction of defects of this size [10-16]. In our study, for this purpose, among the 31 patients, 15 (41.7%) had a stair-step flap, 10 (27.8%) had an Abbe flap, and 3 (8.3%) had the Estlander technique. The Gillies flap was used in 5 (13.9%) patients, and the Karapandzik technique was applied in 3 (8.3%) cases (Figures 2 and 3).

Reconstruction of defects between 2/3 of the total length of the lower lip and total damage.

Defects of this size were observed in 5 out of 30 patients (16.6%) after radical resection of T2 tumors and in 25 out of 27 patients (93.0%) after radical resection of T3 tumors, making a total of 28 patients. Local flaps were used in the reconstruction of defects in this group. Among the 28 patients in this group, reconstruction was performed using the Karapandzik flap in 15 (53.6%) patients, including 8 medial and 7 paramedian defects.



A. Preoperative view. B. Design of the reconstruction. C. Final result of the surgery. D. 2 weeks after surgery.

Figure 1. W technique.



A. Preoperative view. B. Design of the reconstruction. C. Final result of the surgery. D. Eight months after surgery.

Figure 2. Stair-step technique.



A. Preoperative view. B. Design of the reconstruction. C. Final result of the surgery. D. Four months after surgery.

Figure 3. Estlander technique.



A. Preoperative view. B. Design of the reconstruction. C. Final result of the surgery. D. Eight months after surgery.

Figure 4. Karapandzic technique.



A. Preoperative view. B. Design of the reconstruction. C. Final result of the surgery.

Figure 5. Submental flap.

Table 1. The division of reconstruction methods based on the size of the defect.

Reconstruction Method		Defect Size				No (%)
		< 1/3	1/3 > < 2/3	2/3 > < T	T <	
Primary Closure	V	7				7 (6.9 %)
	Y	12				12 (11.8 %)
	W	10				10 (9.8 %)
Local Flaps	Stair-step		15			15 (14.7 %)
	Abbe		9			9 (8.8 %)
	Estlander		3			3 (2.9 %)
	Gillies		2	4		6 (5.9 %)
	Karapandzic		2	15		17 (16.7 %)
	McGregor			3	2	5 (4.9 %)
	Nakajima			6	7	13 (12.7 %)
Regional Flaps	Submental				4	4 (3.9 %)
	Supraclavicular				1	1 (0.9 %)
Total		29 (28.4%)	31 (30.4%)	28 (27.5%)	14 (13.7%)	102 (100.0%)

The Gillies technique was applied in 4 (14.3%) patients, among which 2 had medial defects, and 1 patient each had paramedian and lateral defects. The McGregor technique was used in 3 (10.7%) patients, with one having a paramedial defect and two having lateral defects (Figure 4).

Thus, the reconstruction of defects between 2/3 and total involvement of the lower lip requires a more complex reconstruction method compared to the previous two groups. Depending on individual indications, the use of any of the aforementioned reconstructive techniques is possible for such defects [15,17-19]. As a result of our study, we consider the Gillies and Karapandzic techniques to be more suitable for this group of defects. In certain situations, the Nakajima and McGregor techniques may also be used.

Reconstruction of defects with total damage to the lower lip.

Total lip defects were observed in 10 patients with T4 tumors. In these 10 patients, 6 (60.0%) were reconstructed with local flaps, and 4 (40.0%) were reconstructed with regional flaps. Among the local flaps, the McGregor technique was used in 1 patient (10.0%) and the Nakajima technique in 5 patients (50.0%). Regional flaps included the submental flap in 3 patients (30.0%) and the supraclavicular flap in 1 patient (10.0%) (Figure 5).

Thus, both local and regional flaps can be used for total lip defects [18-21].

Conclusion.

The lips play an important role in the aesthetics of the face. Therefore, it is important to use adequate reconstruction method to obtain good functional and aesthetic results in the reconstruction of malignant tumors in this area. In the process of planning the reconstruction the size and localization of the defect, the elasticity of the surrounding tissues, the patient's somatic condition and his attitude to the reconstruction method should be taken into account. Small defects can be repaired with primary closure or local flaps. For defects of larger sizes, regional flaps can be used. The surgeon must be up to date with the latest developments in order to offer patients the most optimal reconstructive option.

REFERENCES

1. Yohar R, Alhabbab R. Lip cancer prevalence, epidemiology, diagnosis and management: a review of the literature. *Advances in oral and maxillofacial surgery*. 2022;6:1-7.
2. Salgarelli A.C, Setti G, Bellini P, et al. Guidance flap choice for lip cancer: principles, timing, and esthetic-functional results. *Cirurgia oral y maxillofacial*. 2016;38:1-10.
3. Ebrahimi A, Motamedi M, Kazemi M, et al. Lip reconstruction after tumor ablation. *World Y. Plast. Surg*. 2016;5:15-25.
4. Yousefi M, Khoshnevis J, Seraj M, et al. Primary repair with no flaps for lower lip defects (30-80%) after cancer excision. *Asian Journal of Surgery*. 2024;47:995-998.
5. Russo R, Pentangelo P, Ceccaroni A, et al. Lower lip reconstruction after skin cancer excision: a tailored algorithm for elderly patients *J. Clin Med*. 2024;13:554-560.
6. Visschers J.G, Gorris P.J, Verney A, et al. Surgical margins for resection of squamous carcinoma of the lower lip. *Int J Oral Maxillofac Surg*. 2002;31:154-157.
7. Lubek J.E, Ord R.A. Lip reconstruction. *Oral Maxillofac Surg. Clin North AM*. 2013;25:203-214.
8. Coppit G.L, Lin D.T, Burkey B.B. Current concepts in lip reconstruction. *Curr. Opik Otolaryngol Head Neck Surg*. 2004;12;281-287.
9. Ebrahimi A, Motamedi M, Ebrahimi A, et al. Lip reconstruction after tumor ablation. *World J. Plas. Surg*. 2016;5:15-25.
10. Anvar B.A, Evans B.C, Evans G.R. Lip reconstruction. *Plast Reconstr Surg*. 2007;120:57-64.
11. Sbalchiero Y.C, Anlicoara R, Cammarota M.C. Reconstrcao Labial; Abordagem funcional e estetcaapos resseccao tumoral. *Rev. Soc. Bras. Cir. Plast*. 2005;20:40-45.
12. Banmann D, Robb G. Lip reconstruction *Semiplast Srg*. 2008;22:269-280.
13. Repper Y.P, Baker S.R. Local flaps: cheek and lips reconstruction. *YAMA Facial Plast. Surg*. 2013;15:374-382.
14. Abbe R. A new plastic operation foe the relief of deformity due to double harelip. *Plast. Reconstr. Surg*. 1968;42:481-483.
15. Karapandzic M. Reconstruction of lip defects by local arterial flap. *Br. Y. Plast. Surg*. 1974;27:93-97.
16. Estlander Y. Eine metode aus der einen lippe substanzverluste der anderen zuersetzen. *Arc.Klin.Chir*. 1872;14:622-623.
17. Bahama P.K. Lip reconstruction using the Gillies fan flap. *Operative techniques in otolaryngology-head and neck surgery*. 2020;31:18-20.
18. Al-Aroomi M.A, Worafi N.A, Zhon W, et al. Lower lip reconstruction using Me Gregor fan technique with or without depressor anguli oris chimeric flap Is there a difference in function and aesthetic outcomes. *Head Neck*. 2023;4596:1511-1518.
19. Nakajima T, Yoshimura Y, Kami T. Reconstruction of the lower lip with a fan-shaped flap based on the facial artery. *Br. J. Plast. Surg*. 1984;3791:52-54.
20. Cicco R.D, Murbach B.Z, Dias F.A, et al. Total lower lip reconstruction using island submental flap. Initial experience and literature review. *Otolaryngology Case Reports*. 2024;30:10-16.
21. Eid I. The supraclavicular flap. *Operative Techniques in otolaryngology. Head Neck surgery*. 2019;30:106-111.