

## RECONSTRUCTION OF THE AREOLARICAL AREA IN THE SURGICAL TREATMENT OF BREAST CANCER

(reconstruction of the nipple using the areola's own tissues)

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**Abstract.** Extensive operations with lymph node dissection often lead to the development of a number of physical defects, as well as to the development of persistent mental maladaptation of those operated on. Therefore, in modern oncology, doctors pay special attention to plastic, reconstructive types of surgery that improve the quality of life of patients.

By performing a single-stage mammoplasty operation on a breast resected with the nipple due to cancer, the nipple is created from the residual areola. Achieving a radical operation and a good cosmetic and psychological result at the same time. We give an example of a case where a single-stage breast reconstruction mammoplasty was performed in conjunction with a mastectomy for breast cancer. A 64-year-old patient was diagnosed with "Breast cancer, nodular type St Ia T1N0M0. Luminal type A" on 02.10.2024. MDT No. 2736 and was recommended surgical treatment. The areola is sutured to the nipple shape through a subcutaneous suture and sutured to the skin is cosmetically and psychologically effective and contributes to rapid wound healing. Although the size is somewhat reduced, the shape of the breast is preserved. 6 operations were performed with this method in the Oncology Center of Shymkent. In conclusion, one-stage breast reconstruction surgery for breast cancer is currently a unique cosmetically convenient and effective method. The rapid wound healing and psycho-emotional effectiveness of the surgery allow for an increase in the number of such surgeries.

**Key words:** oncology, breast cancer, reconstruction, areola, nipple.

## Сүт безі обырының оперативті емінде емізік ареолярлы аймақтың (ареоланың өзіндік тіндері арқылы емізік түзу) реконструкциясы (клиникалық жағдай)

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ДСБ ШЖҚ "Онкологиялық орталығы бар көпбейінді қалалық аурухана",  
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**Аңдатпа.** Кең ауқымды лимфодиссекциясымен жасалатын радикалды операциялар, отадан кейінгі кезеңде науқас өмірінің сапасын күрт нашарлатып, психоэмоционалды дезадаптацияға алып келетіндігі мәлім. Сондықтан да заманауи хирургияда реконструктивті, пластикалық оталар жасау үлкен қажеттілікке ие.

Обыр бойынша емізігімен бірге резекцияланған сүт безіне бір моменттік маммопластика отасын жасау арқылы, қалдық ареоладан емізік түзу. Бір мезете радикалды ота мен косметикалық және психологиялық тұрғыда жақсы нәтижеге қол жеткізу. Сүт безі обырында мастэктомиямен қатар бір кезеңдік емізікті қалпына келтіру бойынша маммопластика жасалған жағдай туралы мысал келтіреміз. 64 ж науқас «Сүт безі обыры, түйінді түрі St Ia T1N0M0. Люминальды А типі» 02.10.2024ж.. №2736 МДТ –та қаралып, оталық ем ұсынылды. Ареоланы тері асты шелі арқылы бүре тігіп емізік формасына келтіріп, теріге тігу косметикалық, психологиялық тұрғыда тиімді және жараның тез жазылуына септігін тигізеді. Көлемі біршама кішірейгенімен, сүт безі формасы сақталған. Осы тәсілмен Шымкент қ. Онкологиялық орталықта 6 ота жасалынды. Сүт безі обырының бір кезеңдік емізікті қалпына келтіру отасы қазіргі таңда косметикалық тұрғыда ыңғайлы, тиімді бірегей

тәсіл. Жараның тез жазылуы мен отадан кейінгі психоэмоциональды тұрғыда тиімділігі аталған отаның санын арттыруға мүмкіндіктер береді.

**Түйін сөздер:** онкология, сүт безі обыры, реконструкция, ареола, емізік түзу.

### **Одномоментная реконструкция сосочно ареолярной зоны (формирование соска с использованием собственной ткани ареолы) при оперативном лечении рака молочной железы (клинические случаи)**

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**Аннотация.** Объемные операции с лимфодиссекцией, часто приводит к развитию ряда физических дефектов, а также к развитию стойкой психической дезадаптации оперированных. По этому в современной онкологии особое внимание врачей уделяется на пластические, реконструктивные виды операции которые улучшает качества жизни пациентов.

В условиях онкодиспансера демонстрация одномоментной маммопластики с восстановлением удаленного соска местным тканями, и добиться хорошего косметического результата, улучшая в последствии количество и качество жизни пациентов. Приведен клинический случай, удачного, одномоментного, оперативного восстановления соска после мастэктомии с использованием ареолы удаленной молочной железы. Реконструктивные операции по восстановлению соска при подкожной мастэктомии, секторальной резекции по поводу рака молочной железы уникален, не имеет аналогов, удобен в косметическом плане, и способствует быстрому заживлению послеоперационных ран. Аналогичным способом в онкологическом центре г. Шымкент произведены 6 операции с удовлетворительными результатами. Проведенные реконструктивные операции по восстановлению соска из оставшееся ареолы, техническая простота манипуляции и удовлетворительные результаты дают возможность думать о увеличении числа подобных операции.

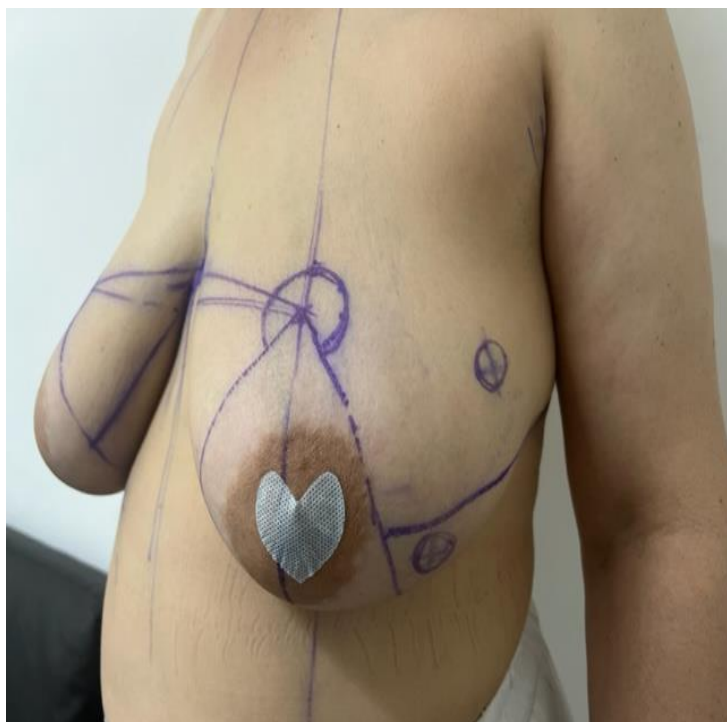
**Ключевые слова:** онкология, рак молочной железы, реконструкция, ареола, формирование соска.

**Introduction.** Simultaneous, primary mammoplasty allows you to simultaneously perform a radical operation from an oncological point of view, and achieve a good cosmetic result, subsequently improving the number and quality of life of patients. According to the literature, reconstructive breast surgery in cancer patients does not particularly affect the course of the disease and does not interfere with special treatment.

Duadze I.S. et al. Performed breast reconstruction using autologous flaps of the anterior abdominal wall and achieved good results. The authors recommend taking into account a number of factors such as the patient's age, the presence of concomitant diseases (diabetes mellitus, obesity, smoking, etc.), as well as the state of blood supply to the donor skin) [1].

After performing a number of reconstructive operations in breast cancer, the following authors indicate that good and satisfactory cosmetic results were obtained in every third woman. This is due to the peculiarities of the location of the tumor in the breast, as well as the stage of development (ratio of tumor size and breast) [2].

Tailor S.M. et al., having conducted randomized clinical trials with a long-term follow-up period in patients with stage I-II breast cancer, did not reveal differences in survival rates during mastectomy and organ-preserving operations, which made it possible to more widely use organ-preserving operations in the treatment of patients with breast cancer [3].



The following authors express the same opinion, comparing the long-term results of organ-preserving, oncoplastic operations with radical mastectomy, they do not find much difference in the survival rate of patients with breast cancer. It is recommended to use oncoplastic resections with a small tumor node, which give good aesthetic results, thereby improving the quality of life of patients in the postoperative period [4].

After conducting randomized studies of 101 breast cancer patients who underwent organ-preserving surgery and subcutaneous mastectomy, the authors found that in patients with subcutaneous mastectomy, the recurrence of the disease was approximately 2 times less than that of organ-preserving surgery [5].

Other authors described a successful skin-saving mastectomy with simultaneous reconstruction of the mammary gland with a flap of the broadest muscle of the back (TDL) with a good distant, disease-free result [6].

**Purpose of the study:** In the oncologic dispensary, demonstration of single-stage mammoplasty with restoration of the removed nipple with local tissues, and achieve a good cosmetic result, subsequently improving the number and quality of life of patients.

**Material and methods:** Performed surgical restoration of the nipple after mastectomy using areola, on the feeding pedicle, removed breast. Patient 64g. was admitted to operative treatment with complaints of a mass in the left breast.

**Anamnesis morbi:** Registered since 26.09.2024. diagnosed with C-r of the left breast, nodular form of St Ia T1N0M0. Luminal A subtype. According to the patient, the disease was detected by screening. Ultrasound of the m/glands from 07.08.2024. Focal lesions: for 12 hours, a hypoechogenic lesion with a size of 0, 6x0.4 cm, the content is heterogeneous with CDK without blood flow. Conclusion: Glandular changes of both mammary glands. Left breast formation. BI-RADS RU2LU4

Trepan biopsy from the left breast was performed.

Histology of 16.09.2024. No. 14844-45 Histo: Invasive breast carcinoma G-2, nonspecific type, in the biopsy specimen. ICD-O:8500/3

IHC No. 14844-45 dated 01.10.2024 g-Her2- (0 +), RE-7b, RP-6b, Ki67-20%.

Discussed at MDG No. 2736 dated 02.10.2024-1. Recommended surgical treatment.

Hospitalized in the mammology department for surgical treatment.

The general condition of the patient is satisfactory, the position is active, the consciousness is clear, adequate. On the Karnovsky scale 80%. ECOG -1 point. There is no ARVI phenomenon. Somatic state corresponds to age, data from internal organs are not peculiar. HR 80 bpd in 1 min. BP 120/80 mm Hg Physiological findings are normal.

Status localis: On examination, the mammary glands are symmetrical. When palpating, the OWC of the left breast is determined by the formation of 1.0 \* 1.0 cm times. Regional lymph nodes are not increased. (Fig. 1)

**Methods and results:** 16.10.2024 surgery was performed: resection of the quadrant of the left breast with lymphodissection, plastic surgery of the removed nipple with local tissues (areoles on the feeding pedicle).

After treatment of the surgical field, iodinate + alcohol 3 \* fold produced two linear skin incisions around the central quadrant of the left breast. Hemostasis. Skin flaps are separated. The

central quadrant of the left breast was removed along with the nipple. Part of the areolar zone not affected by the tumor was left (Fig. 2).

Plastic nipple with a particle of the left areola and skin on the feeding leg was produced. Hemostasis is achieved by electrocoagulation and vascular ligation. Wound drainage along the anterior axillary line along Redon. Operating wound toilet. Wound sutures. Alcohol. Aseptic dressing. The postoperative period proceeded smoothly. The wound healed with primary tension. Ultimately, the shape of the mammary gland is partially restored, a nipple is formed from the remaining areoles. The operated mammary gland is reduced in size, but the overall shape is preserved. If desired, the patient can increase the size of the breast using a silicone implant simultaneously with the removal of the tumor, as well as after a certain time, after the healing of the postoperative wound (Fig. 3).

There are no complaints at discharge. On the Karnovsky scale 90%. ECOG -0 point.

The general condition is satisfactory. There is no ARVI phenomenon. T body 36.5 C. Vesicular breathing in the lungs, no wheezing. Heart tones are clear, rhythmic. BP - 120/80 mm Hg

Pulse - 77 beats per minute, rhythmic, satisfactory filling. The tongue is moist, clean. The abdomen is soft, painless. The liver is not enlarged, painless. The spleen is not palpable. The swaying symptom is negative on both sides. The stool is normal. Urination is free, painless.

**Status Localis:** The seam is pure calm. Processed. Aseptic dressing.

Discharged in satisfactory condition.

Clinical diagnosis at discharge: C-r of the left breast, nodular form, OWC. StIIA T2N0M0 G2. Luminal type B. No HER 2 overexpression. SSW ShSR on the left with LD. Clinical group II.

**Discussion of results;** Reconstructive surgery to restore the nipple during subcutaneous mastectomy, sectoral resection for breast cancer is unique, has no analogues, is convenient in cosmetic terms, and contributes to the rapid healing of postoperative wounds. In a similar way, 6 operations were performed at the Shymkent Cancer Center with satisfactory results. The results after 4-6 months are satisfactory and good. There is no failure of sutures and no local recurrences.







**Conclusions:** Thus, the method used by surgeons and mammologists of the Shymkent Cancer Center to restore the nipple during subcutaneous mastectomy, sectoral resection for breast cancer is unique, has no analogues (studying the set of literature on breast plastic surgery, the authors did not find such a description), is cosmetically convenient, and contributes to the rapid healing of postoperative wounds. Supports patients psychologically, gives self-confidence and preservation of femininity. Convenient for use in Paget cancer.

#### ***Study transparency***

*The study had no sponsorship.*

#### ***Declaration of Financial and Other Relationships***

*The authors did not receive study royalties.*

#### ***Authors' contributions***

*All authors were equally involved in the conception and design of the study; data analysis and processing; writing the first version of the article; in the final approval of the article for printing.*

#### ***Conflict of interest***

*The authors declare no conflict of interest.*

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