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Reduction Mammoplasty Using T-Incision Technique in Gigantomastia

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Abstract

Reduction mammoplasty at the current stage of plastic surgery development should solve three main problems: resection of excessive volume of gland tissue; elimination of ptosis of the nipple-areolar complex (NAC); removal of excessive overstretched skin covering the gland. Purpose of the study: to investigate the results of reduction mammoplasty using a T-shaped incision in gigantomastia with preservation of the nipple-areolar complex. In the department of maxillofacial and plastic surgery of Bukhara Regional Multidisciplinary Medical Center, 16 women aged 23 to 55 years with the diagnosis of "pronounced hypertrophy of both mammary glands" were operated in the scope of reduction mammoplasty using T-incision in the period from 2016 to the present. In the early and late postoperative period, no complications from the surgical wound were detected in those operated using this technique. Complaints about the aesthetic character after the operation were in 1 woman, in connection with which a corrective operation was performed. Areola sensitivity was fully restored in 97.5% of the patients. The average follow-up period was (1.7±0.7) years. There was no recurrence of gigantomastia, SAC necrosis in the operated women.

Keywords: gigantomastia, reduction mammoplasty, nipple-areolar complex.

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INTRODUCTION

Reduction mammoplasty is a surgical intervention aimed at reducing the breast glands by cutting away excess glandular and fatty tissue and skin. This surgical intervention began its development since ancient times, however, only in the last 100 years there have been advances. The main aspiration of surgeons was to find a method that would provide the following: reliability, minimization of postoperative scars, giving

the desired shape of the gland. The operation is aimed at solving both aesthetic problems and functional ones, as it helps the patient to get rid of posture disorders, spinal deformities, which further has a negative impact on the musculoskeletal system. [2, 5] C. Dufourmentel and R. Mouly (1961), and then P. Regnault (1974) proposed a method of reduction mammoplasty, which allowed the scar to be located only in the lower outer sector of the gland and excluded the traditional scar from the gland to the sternum. C. Lassus (1987) and later M. Lejour (1994) proposed reduction mammoplasty, which left only a vertical scar located in the lower half of the breast. The T-shaped reduction technique involves wide mobilization of the skin over the breast, wedge excision of its excesses followed by transposition of the SAC on the parenchymatous (usually central feeding pedicle) and rotation of the remaining glandular tissue to give the organ a more conical shape (Arie, Pitanguy, Hester). Reduction mammoplasty is a rather extensive surgical procedure, during which sometimes large areas of tissue are removed, creating a significant wound surface area, which increases the likelihood of local complications. Clinical practice has shown that the incidence of postoperative complications is in direct correlation with the amount of tissue removed [11].

MATERIAL AND METHODS

In the plastic surgery department of Bukhara Regional Multidisciplinary Medical Center, 16 women aged 23 to 55 years with the diagnosis of "marked hypertrophy of both mammary glands" were operated in the scope of reduction mammoplasty using T-incision in the period from 2016 to the present (Figure 1). The most frequent complaints of the women were: discomfort, aesthetic dissatisfaction and limitation in physical activity. The main criterion determining the indications for reduction mammoplasty was a huge breast mass. The total breast mass in the operated patients amounted to more than 2000 g. The volume of mammary glands was calculated according to the formula $V = \pi r2h$, where r is the radius of the cone base, h is the cone height. Before the operation we made marking according to the scheme of T-shaped reduction mammoplasty. The intervention was performed under general anesthesia. The new position of the areola and nipple corresponded to the level of the submammary fold along the midclavicular line and was located at a distance of (19 ± 3) cm from the jugular notch.

Figure 1. Appearance of a patient with gigantomastia

The first stage was de-epidermization according to the inverted T-shaped scheme. Then, we performed breast resection in the lower, lower-lateral, medial, and upper sectors removing 700 to 1000 g of breast tissue on each side (Fig. 2).

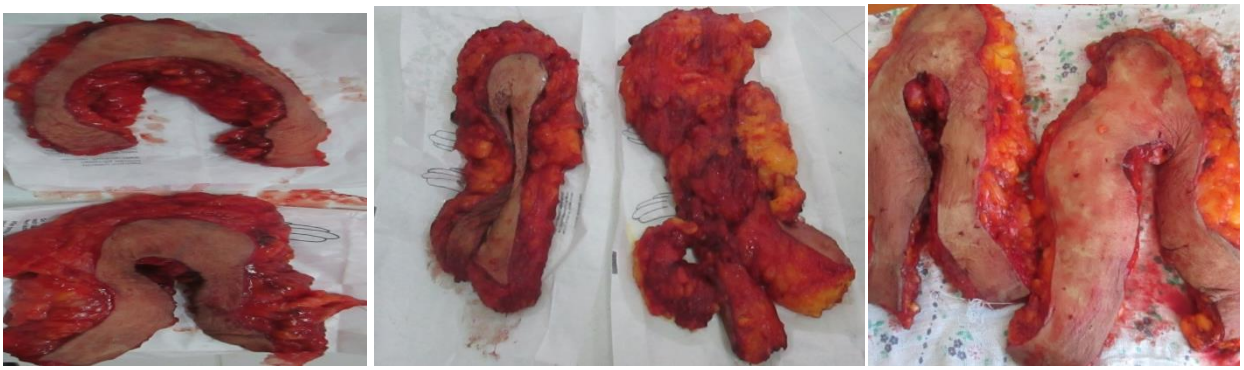

Figure 2. Removed macropreparation: resection of the upper, lower, inferior, inferior-internal and inferior-inferior quadrants as a single flap

Then we performed layer-by-layer suturing of the areola, lateral and medial flap. The postoperative wound was sutured layer by layer with atraumatic Monocryl monofilament USP 3-0. The aseptic dressing was fixed with compression underwear.

RESULTS AND DISCUSSION

The mammary gland is located on the chest wall such that it covers a significant portion of the pectoralis major muscle and even part of the anterior serratus muscle [2, 4, 6, 13]. Mammary gland enlargement usually begins at puberty and continues throughout a woman's life. Estrogens are thought to stimulate the gland and its ducts, although no direct link between estrogen receptors and breast enlargement has been found so far. Extremely enlarged mammary gland, according to some authors, has a proper proportion of glandular elements with a huge abundance of fat and connective tissue [4, 5, 7, 11]. It is believed that the excessive enlargement of the mammary glands that occurs during puberty or pregnancy represents an improper over-response of the mammary gland to the "normal hormonal background" of the woman. In this condition, the mammary glands grow and rapidly reach a huge size without immediate regression. In such cases, hormonal therapy is ineffective and surgery to reduce them (reduction mammoplasty) is recommended [5, 12]. In our center 16 women were operated on. All operated patients were examined on the second day after surgery, and attention was paid to the condition of the postoperative suture, and the presence or absence of additional fluid masses was determined by palpation. If necessary, ultrasound examination of the mammary glands was performed. Patients were discharged for outpatient observation on the 5-7th day after surgery. Repeated examination was performed on the 10th day. All operated patients had no complaints, healing was primary tension, sutures did not require additional treatment. Areolae had a normal color, their sensitivity was mosaic. The next control examination was performed one month later. One woman complained about the aesthetic character after the operation, and therefore a corrective operation was performed. Areola sensitivity was fully restored in 97.5% of the patients. The control examination was performed after 6 months, and subsequently the patients were observed as they were referred (Fig. 4). At present, the average follow-up period is (1.4 ± 0.7) years. There was no recurrence of gigantomastia, SAC necrosis in the women operated on.

Figure 4. Status 1 year after reduction mammoplasty

CONCLUSIONS:

The method of reduction mammoplasty using T-incision allows removal of the required volume of breast tissue, without critical tension. The T-shaped suture provides an aesthetic appearance, significantly reduces the incidence of necrosis and denervation of the nipple-areolar complex.

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