Male Nipple Reduction With a Simple Circular-Flap Technique

Aesthetic Surgery Journal
2016, Vol 36(1) 113–116

DOI: 10.1093/asj/sjv136
www.aestheticsurgeryjournal.com
OXFORD UNIVERSITY PRESS

Dali Mu, MD; Jie Luan, MD; Xiaoshuang Guo, MD; and Boyang Xu, MD

Accepted for publication May 22, 2015; online publish-ahead-of-print August 26, 2015.

Nipple shape is crucial to the aesthetic appearance of the entire breast. Nipple hypertrophy, caused by congenital or acquired factors, affects the overall shape of the breast, which may lead to a severe lack of self-confidence.[1] Although it is relatively rare, male nipple hypertrophy has a serious psychological impact on patients. In most cases, male nipples are usually smaller in both diameter and projection than female.

The purpose of nipple reduction is to reduce the diameter and height of the nipple by removing part of the tissue. Quite a few nipple reduction techniques have been reported for nipple hypertrophy.[2-5] Marshall et al[6] treated nipple hypertrophy by excision of central nipple tissue, Basile and Chang[7] removed the core nipple tissue by forming a complex triangular flap, and Jin and Lee[8] reduced the nipple diameter by wedge resection of the nipple tissue and by reducing the height using loop excision of the base skin. These surgical methods undoubtedly offer excellent outcomes. However, one problem is the relatively complex surgical design.[3] Flaps were used in these techniques. It is more difficult to perform such complex surgical operations on a male nipple with a relatively small size. As reported below, an ideal surgical outcome was achieved in the treatment of male nipple hypertrophy in our center with the use of a simple circular-flap technique.

Reducing the height of the nipple is also one of the purposes of nipple reduction. Moliver et al[9] treated nipple hypertrophy with a simple technique by excision of the top of nipple tissue. The height of the nipple was reduced easily with this method; however, the diameter of the nipple remained as before. For male nipples, a small projection is satisfactory. Using the circular-flap nipple reduction technique described in this study, no additional operations are required to reduce nipple projection by longitudinal excision, and a normal nipple projection can be achieved using the tissue underneath the flap.

According to the statistical data from Lai and Wu[10] and Fanous et al,[5] nipple hypertrophy appears to be reported most frequently in Asian patients, followed in order by Hispanic, African American, and Caucasian patients, so the postoperative scar is still a problem. In this study, the average postoperative scar was approximately two-thirds of the nipple base perimeter, and was hidden below the base edge of the nipple and at the junction of the nipple and the base. This is an obvious advantage for Asian patients. The diameter of the nipple base was reduced by placing a purse-string suture at the base, so that the nipple diameter was reduced to the desired value. The nipple base diameter was reduced to 0.4 cm, which meets the general aesthetic satisfaction for male nipples.

OPERATIVE DETAILS

A circular flap with a diameter of 0.4-0.5 cm is designed on the upper portion of the hypertrophic nipple. The flap pedicle is located at the 12 o'clock position of the nipple base. The pedicle width is not less than one-third of the flap width to ensure a flap blood supply. Under local anesthesia, an incision is made along the edge of the circular flap after the nipple base is infiltrated with 0.5% lidocaine and 0.0005% epinephrine. The thickness of the pedicle beneath the flap is not less than 0.2 cm. The nipple tissue is excised from the nipple base, except for the circular flap. A purse-string suture is placed at the nipple base with 6-0

From the Center for Mammoplasty and Breast Reconstruction, Plastic Surgery Hospital, Peking Union Medical College, Chinese Academy of Medical Sciences, Beijing, China.

Corresponding Author:
Dr Dali Mu, 33#, Badachu Rd, Shijingshan District, Beijing, China
E-mail: drmudali@hotmail.com

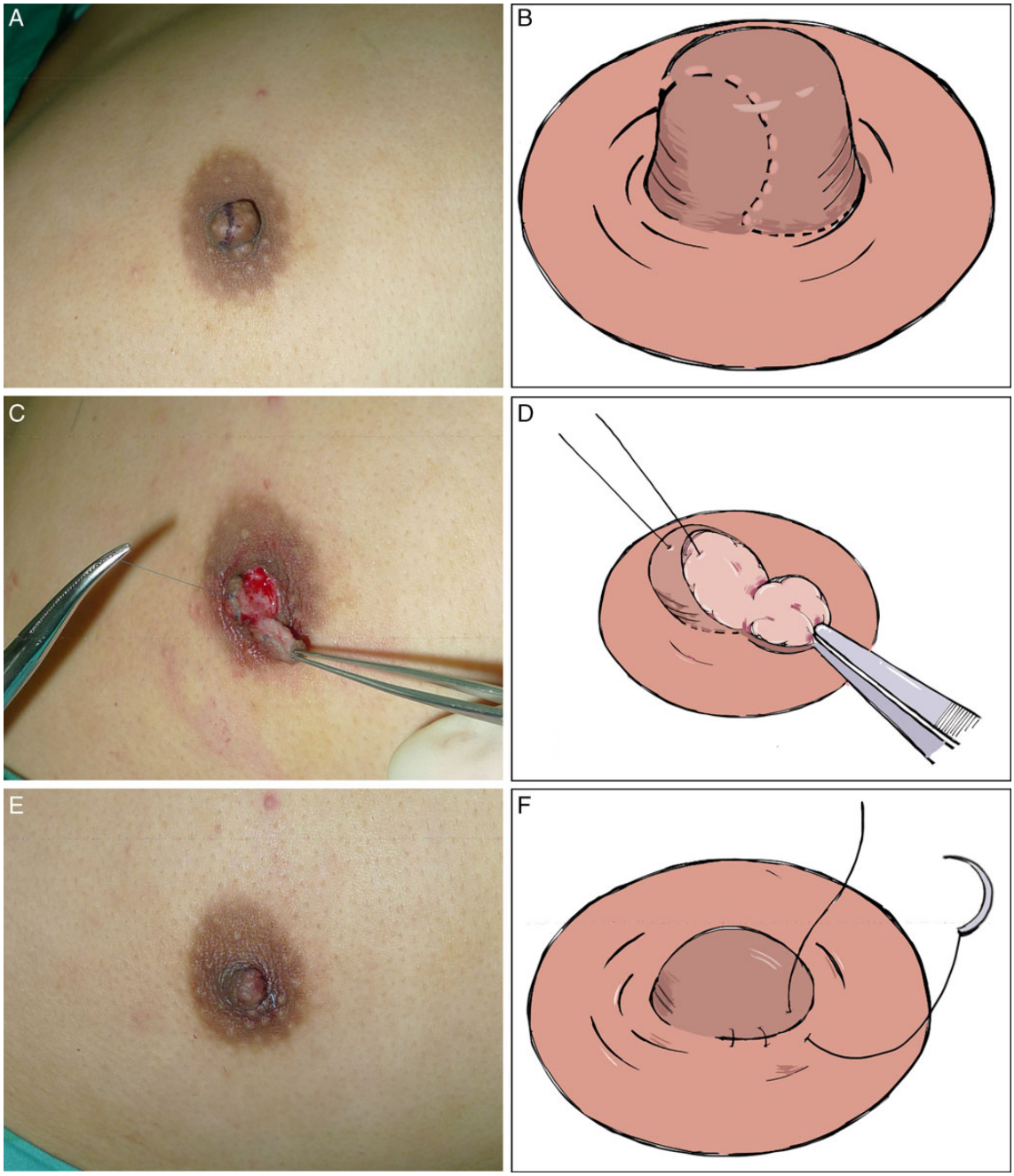

Figure 1. A 24-year-old male patient underwent nipple reduction. (A, B) A circular flap was designed on the upper portion of the hypertrophic nipple, with the pedicle width not less than one-third of the flap width. (C, D) The rest of the tissue was excised from the nipple base. (E, F) The circular flap was sutured to the wound surface of the base.

prolene sutures, with the knot in any convenient place. The nipple base is reduced to approximately 0.3-0.4 cm in diameter to match the flap. In fact, a non-absorbable suture and an absorbable suture have a similar effect to reduce the base of the nipple; however, we have never tried absorbable sutures. The circular flap is then sutured to the wound surface of the base by interrupted sutures, followed by a sterile dressing (Figure 1). The mean duration of the procedure was 16.5 minutes (range, 14-18.5 minutes). No postoperative use of hemostatic agents is required. The sutures are removed after 7 days. No special equipment or extraordinary cost is required for this procedure. A video of the surgical technique demonstrated on a 26-year-old male patient is available as Supplementary Material.

MY EXPERIENCE AND OUTCOMES

From April 2008 to April 2012, 42 male patients ranging in age from 17 to 29 years (mean, 22.5 years) were treated for nipple hypertrophy in the Breast Surgery Center of the Plastic Surgery Hospital at the Chinese Academy of Medical Sciences. In total, 36 patients had bilateral nipple hypertrophy and 6 had unilateral nipple hypertrophy. No patients had received prior surgical treatment for nipple hypertrophy. Outpatient and telephone follow-ups were performed for all patients after surgery.

Postoperative follow-ups ranged from 6 months to 2 years, with an average of 9.8 months. The mean nipple diameter and height were 0.95 ± 0.14 and 0.89 ± 0.09 cm, respectively, before surgery, and 0.44 ± 0.02 and 0.38 ± 0.07 cm, respectively, more than 6 months after surgery. Patient satisfaction with the resulting nipple shape was evaluated by outpatient reviews (English and Chinese copies of the evaluation form are available as Supplementary Material). Each patient was asked about their level of satisfaction by senior surgeons. Overall, 38 patients (90.5%) were very satisfied with the surgical outcome, 3 (7.1%) were moderately satisfied, and 1 (2.4%) was dissatisfied with the nipple shape due to hypertrophic scars around the incision (Figures 2 and 3). In addition, 36 patients (85.7%) felt that nipple sensation did not change significantly from the preoperative level, while 6 (14.3%) felt sensation losses of varying degrees. Because all the procedures were performed on male patients, there is no need to worry about occluding the ducts. During follow-ups, no patients had cysts or infections. Five out of the 42 patients (11.9%) experienced delayed healing of a small portion of the incision, which was healed after dressing changes. No scar contractures led to constriction of the base of the nipple and no nipple circulation problems were noted.

CONCLUSION

The circular-flap nipple reduction technique has a simple surgical design, a shorter operative time (mean, 16.5 minutes), and allows for a hidden scar; therefore, it is an ideal technique for treating male nipple hypertrophy.

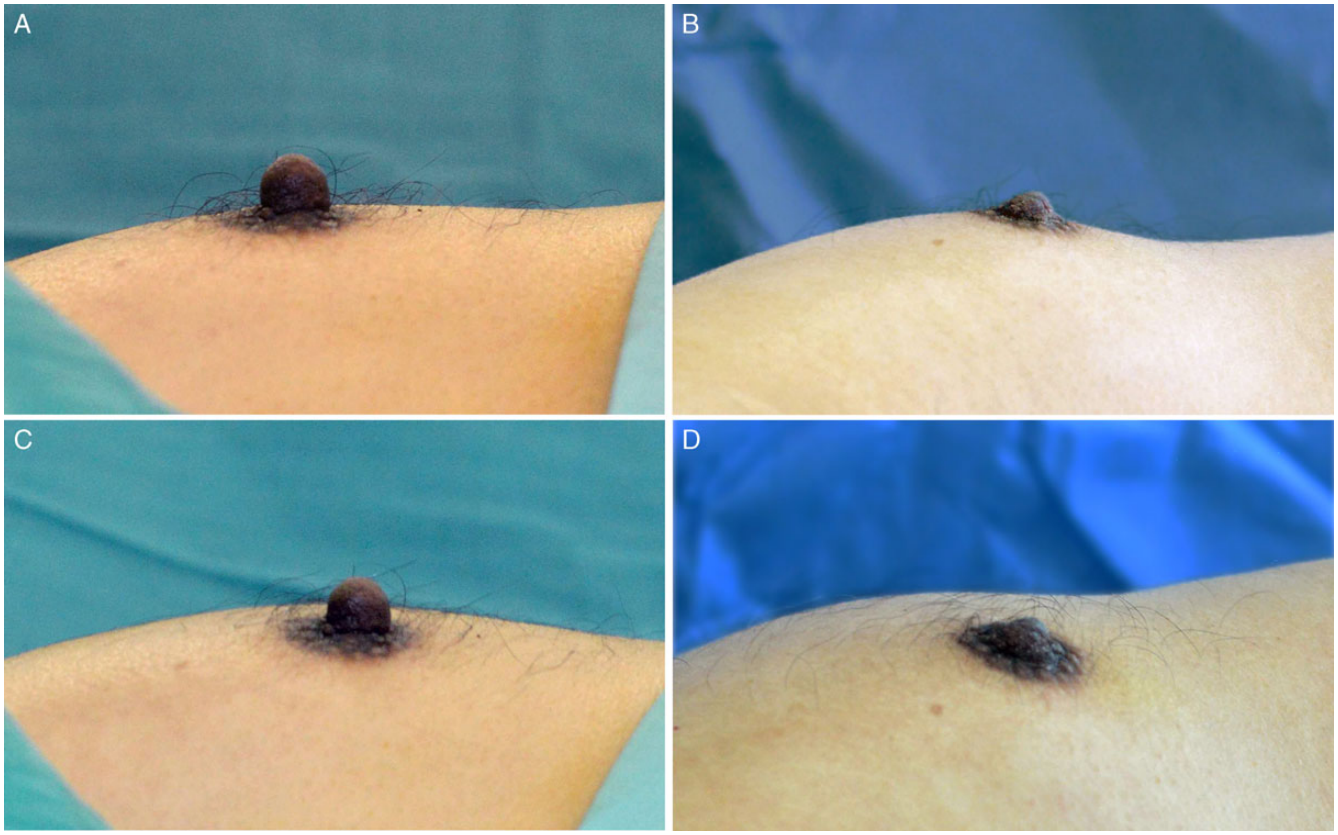

Figure 2. (A, C) A 26-year-old male patient presented with nipple hypertrophy. (B, D) One year after nipple reduction with a simple circular-flap technique.

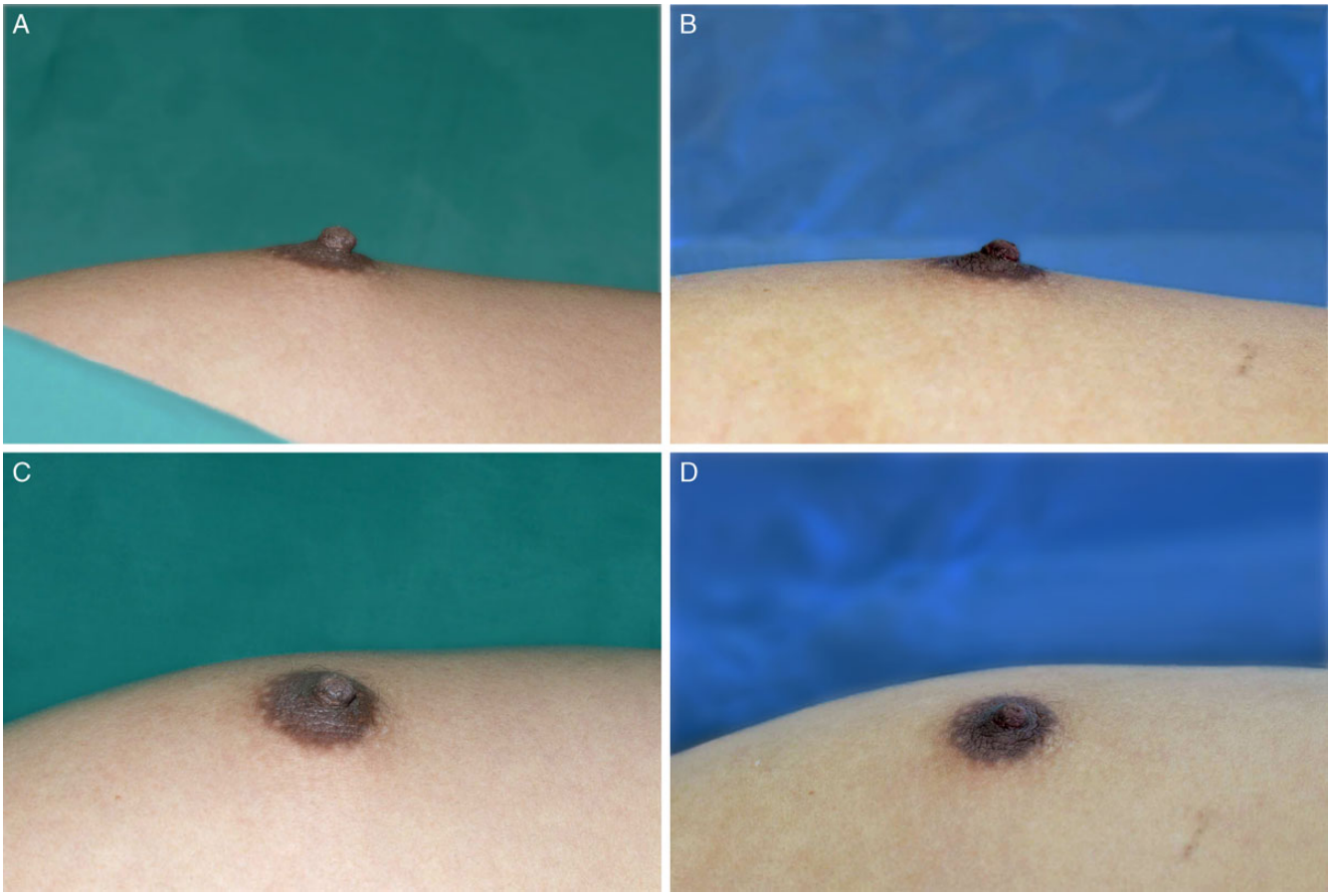

Figure 3. (A, C) A 22-year-old male patient presented with nipple hypertrophy. (B, D) Six months after nipple reduction with a simple circular-flap technique.

Supplementary Material

This article contains supplementary material located online at www.aestheticsurgeryjournal.com.

Disclosures

The authors declare no potential conflicts of interest with respect to the research, authorship, and publication of this article.

Funding

The authors received no financial support for the research, authorship, and publication of this article.

REFERENCES

1. Huang WC, Yu CM, Chang YY. Geometric incision design for reduction nippleplasty. *Aesthet Plast Surg*. 2012;36(3):560-565.
2. LaBove G, Davison SP. Combined base imbrication and top hat nipple reduction. *Plast Reconstr Surg*. 2014;134(6):997e-998e.
3. Ren M, Wang Y, Wang B. Nipple reduction using a three-dimensional Z-shaped incision technique. *J Plast Reconstr Aesthet Surg*. 2013;66(6):770-775.
4. Kim YS, Hwang K. Easy method for reduction of nipple height. *Aesthet Plast Surg*. 2010;34(6):769-772.
5. Fanous N, Tawile C, Fanous A. Nipple reduction - an adjunct to augmentation mammaplasty. *Can J Plast Surg*. 2009;17(3):81-88.
6. Marshall KA, Wolfort FG, Cochran TC. Surgical correction of nipple hypertrophy in male gynecomastia: case report. *Plast Reconstr Surg*. 1977;60(2):277-279.
7. Basile FV, Chang YC. The triple-flap nipple-reduction technique. *Ann Plast Surg*. 2007;59(3):260-262.
8. Jin US, Lee HK. Nipple reduction using circumcision and wedge excision technique. *Ann Plast Surg*. 2013;70(2):154-157.
9. Moliver C, Kargel J, Sullivan M. Treatment of nipple hypertrophy by a simplified reduction technique. *Aesthet Surg J*. 2013;33(1):77-83.
10. Lai YL, Wu WC. Nipple reduction with a modified circumcision technique. *Br J Plast Surg*. 1996;49(5):307-309.