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VIEWPOINT

Gender-Affirming Surgery

# Optimizing Areolar Shape in Gender Double-incision Mastectomy with Free Areolar Grafts

Andrea Battistini, MD; Gina M. Cach, MD; Julian Klosowiak, MD, PhD; Sumanas W. Jordan, MD, PhD; Marco F. Ellis, MD

In the United States, approximately 1.4% of the population identifies as transgender, with 25.6% being transmen, 35.9% transwomen, and 38.5% nonbinary.[1–3] The most common surgery performed in transmasculine patients is the subcutaneous mastectomy, a procedure aimed at removing the breast parenchyma and excess skin.[4] Numerous studies have focused on optimizing the double-incision mastectomy with free areola graft technique; however, relatively little attention has been paid to optimizing the size, shape, and location of the nipple-areolar complex (NAC). Here, we report on an interesting relationship we have observed between the shape of the NAC and position of the patient's arms.

During the double-incision mastectomy with free areolar grafts, the NAC is harvested as a full-thickness graft in an oval shape, measuring 2.4 cm × 1.5 cm. The ideal position of the areola is identified, located 2 cm medial to the lateral margin of the pectoralis major muscle and 2 cm superior to the incision line. This description applies to transmasculine patients. For nonbinary patients, a different and thoughtful discussion is had about the shape, size, and position of the NAC.

We have observed a peculiar phenomenon in our patients that first becomes apparent postoperatively. It consists of an inferolateral rotation of the NAC, resulting in a new major axis of the areola that is offset at an approximately 30-degree angle from the horizontal axis. This rotation occasionally results in an undesirable oblique orientation of the NAC (Fig. 1). Careful analysis of our outcomes led us to identify a direct correlation between the shape of the NAC and the position of the patient's arms. When the arms are abducted at a 90-degree angle, the areola has a horizontally oriented elliptical shape; however, when the arms are resting at the patient's sides, the areola rotates laterally to about a 30-degree angle and adopts an obliquely oriented elliptical shape. This phenomenon can also be observed in the cis-male chest. This oblique areolar distortion we have noted postoperatively in our patients can be explained by the fact that we routinely perform the entire surgery with the patient's arms abducted at a 90-degree angle, including during placement of the free areolar graft. Then, when the patient is examined postoperatively, standing at rest with their arms by their sides, the NAC would appear laterally rotated relative to its original orientation at the time of placement.

**Fig. 1.** Postoperative photograph depicting a patient whose NAC has rotated inferolaterally, resulting in an oblique orientation.

**Fig. 2.** Postoperative photograph of a patient who had surgery after the authors implemented their practice of adducting the arms intraoperatively before free areolar graft placement. In this example, the NAC shape and position are not altered and are not obliquely oriented.

*From the Division of Plastic and Reconstructive Surgery, Northwestern University Feinberg School of Medicine, Chicago, IL.*

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If the position of the new areola is defined and marked with the patient's arms abducted, their subsequent adduction may alter the final areolar rotation and appearance. For this reason, we recommend adducting the arms before identifying the final position of the areola to prevent abnormal tension on the skin that could distort the result. Since implementing intraoperative arm adduction before free areolar graft placement during double-incision mastectomy for gender affirmation, we have been able to deliver better and more predictable results for the shape and position of the NAC (Fig. 2).

***Gina M. Cach, MD***
Plastic and Reconstructive Surgery Resident
Northwestern Memorial Hospital
251 East Huron Street
Chicago, IL 60611
E-mail: gina.cach@gmail.com

## DISCLOSURE

*The authors have no financial interest to declare in relation to the content of this article.*

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