

Optimizing Aesthetic Outcomes after Retroglanular Breast Implant Explantation

Patrícia J. Maciel, MD

Summary: The safety of silicone breast implants has been questioned due to concerns such as the risk of associated lymphoma, as well as rheumatological and systemic symptoms. This has resulted in an increased demand for explantation, posing the challenge of addressing stigmas related to implant removal. There is a dearth of literature on techniques for restoring breast contour post-explantation. After implant removal, the original breast anatomy is altered, and depressed areas may manifest in random locations. To reposition the breast tissue displaced by the implant, we enlarge the retroglanular pocket and subsequently use sutures for centripetal traction, relocating the tissue back to the footprint area but now in an improved position, delineating the breast contour. This maneuver enables us to restore the breast contour to an anatomical condition akin to preimplantation; diminish the final explantation defect, creating a more suitable pocket for delicate mastopexy flaps; recruit breast tissue, allowing internal sutures to conceal tissue irregularities; and redesign the breast contour area on the chest to achieve better symmetry. (*Plast Reconstr Surg Glob Open* 2024; 12:e6052; doi: [10.1097/GOX.0000000000006052](https://doi.org/10.1097/GOX.0000000000006052); Published online 9 August 2024.)

INTRODUCTION

The safety of silicone breast implants has been questioned since their inception.¹⁻⁴ Recently, concerns have arisen regarding breast implant-associated anaplastic large cell lymphoma (BIA-ALCL) and rheumatological and systemic symptoms,³ fueled by social media⁴ and leading to increased demand for explantation, that is, the definitive removal of implants.

This surge in explantation demands presents a challenge for plastic surgeons^{5,6}: how to address the stigmas caused by breast implant removal and achieve a breast with an appropriate contour closer to its preimplant appearance. A new strategy to rebuild breast contour after retroglanular breast implant removal is described in this article.

In an unoperated breast, the breast tissue rests over the pectoralis major muscle in an area known as the breast footprint⁷ and is anatomically concentrated in the retroareolar region.

When inserted into the retroglanular pocket, the breast implant alters the anatomical distribution of breast tissue (Fig. 1). For the implant to rest over the pectoralis major muscle, the breast tissue needs to be dissected and stretched, adhering to the peri-implant capsule (Fig. 2). Because the implant's highest projection point is in the retroareolar region, this area experiences the greatest stretching.

Each breast with retroglanular implant has a unique redistribution of breast tissue, with the retroareolar region becoming the thinnest area. Upon implant removal, non-physiological tissue distribution is evident (Fig. 3, left breast), resulting in flat breasts with wide bases and low areolar projection ("empty socket" effect). Narrowing the post-explantation pocket width enhances breast contour and areolar projection. [See Video (online), which displays the main steps of the described technique and shows how narrowing the postexplantation pocket improves the contour and, consequently, the projection of the explanted breast.] Nonetheless, attempting to narrow the pocket without first releasing all the mammary tissue already positioned within the footprint may lead to puckering of the mammary tissue and further deformities in the breast shape.

Therefore, to recruit the centrifugally displaced breast tissue, the author extends the dissection of the entire

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Fig. 1. A 35-year-old female patient with 300-mL gel silicone implants in the retroglanular pocket.

retroglanular pocket, surpassing the boundaries of the breast footprint [see Video (online)]. This simple maneuver releases all mammary tissue within the footprint and allows the author to redistribute the tissue freely. Afterward, the breast frame can be reconstructed using separate sutures with 360-degree centripetal traction, which will refill the footprint and simultaneously reshape the breast contour.

After breast contour reconstruction, the author evaluates the need for flap creation for mastopexy, or if only skin resection and internal redistribution sutures would

Takeaways

Question: How to optimize aesthetic outcomes after retroglanular breast implant explantation in patients with thin breast tissue?

Findings: After implant removal, we enlarge the retroglanular pocket and subsequently use sutures for centripetal traction, reconstructing the breast contour.

Meaning: Expanding pocket dissection and applying sutures for centripetal traction of the surrounding tissue restores the breast contour to a similar anatomical preimplant condition, reduces the resultant explant defect, creates a smaller pocket more compatible with thin flaps, fills thinned areas with surrounding breast tissue, and achieves better symmetry by redesigning the breast contour.

suffice to achieve the best outcome. This last option is typically reserved for breasts with minimal mammary tissue. (See figure, Supplemental Digital Content 1, which shows breast shape reconstruction without flaps or fat grafting. <http://links.lww.com/PRSGO/D421>.)

In cases where mastopexy is indicated, the author favors using the crossed flaps technique⁸ due to the security and flexibility afforded by the biparted inferior flap [see Video (online)]. This allows for strategic positioning of the flaps to fill areas with tissue deficiency in each breast. In addition to reshaping the breast framework, this maneuver diminishes the postexplantation defect, facilitating increased projection of the retroareolar region (Fig. 3, right breast) and improving the final aesthetic outcome of the explant (Fig. 4), without the use of fat grafting.

DISCUSSION

Patients considering definitive breast implant removal face concerns about postsurgery appearance. Despite apprehensions influenced by physicians, friends, and family, many seek explantation to prevent future surgery and implant-related complications.

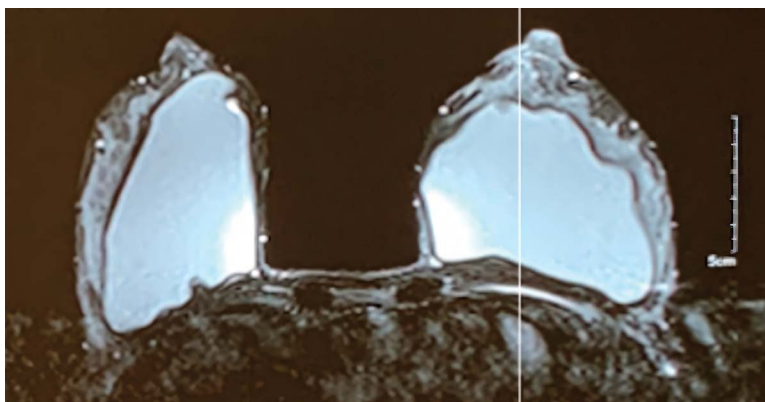


Fig. 2. Preoperative breast magnetic resonance imaging. Notice irregular parenchyma distribution, with areas of significant thinning in the superomedial quadrants.



Fig. 3. Left breast: immediately after implant removal. Notice minimal breast tissue within the breast footprint and depressed areas in the superomedial quadrant. Right breast: breast framework was restored, and bipartite inferior thin flaps were cranially rotated to fill the retroareolar region.



Fig. 4. Nine months postoperative. Narrow and conical breasts were obtained, with adequate breast tissue distribution without retractions or irregularities, appropriate areolar projection, and small horizontal scars after 300-mL implant removal.

However, achieving desired aesthetic outcomes is challenging, given breast tissue and skin distortion post-implantation. Lampert et al⁹ describe an interesting technique focused on mastopexy after total capsulectomy in the removal of submuscular implants, where breast tissue may experience less stretching and exhibit fewer irregularities compared with retroglandular implants, as

it is subject to less pressure from the implant over time due to the protection provided by the pectoralis major muscle.

Borenstein and Friedman¹⁰ present a technique aimed at reconstructing the breast mound following implant removal by utilizing laterally displaced breast tissue. However, this method may not be suitable for patients requiring total capsulectomy or those with limited breast tissue.

To the best of the author's knowledge, the current literature lacks reports on strategies for specifically restoring breast contour after retroglandular silicone implant removal, particularly in patients with limited breast tissue and insufficient fat for lipofilling.

Traditional mastopexy techniques are routinely applied during explantation. However, surgeons may overlook a crucial aspect: postexplantation breast shape reconstruction should not only address the central area but also focus on contouring the entire breast.

In explant cases, the pocket was not originally constructed by the surgeon. Instead, it results from a random implant dissection over the years, and, often, this pocket is completely different from what the surgeon would have created in a primary mastopexy.

With the 360-pocket reconstruction approach, we are not compelled to accept the distorted explantation pocket as it is. We have the capability to reconstruct our own pocket, thereby improving the overall surgical outcome, despite the chosen mastopexy technique.

It is important to note that, in my experience, this approach is not effective for submuscular explantations. In such cases, the mammary tissue remains adhered to the muscle and has not been centrifugally displaced by the implant over the years. Therefore, the tissue does not respond to being centripetally recruited back.

In conclusion, expanding the pocket dissection beyond the limits of the breast footprint and using separate sutures for centripetal traction allow us to:

- Restore the breast contour within optimal anatomical boundaries, reestablishing breast tissue to a state similar to the preimplant breast [see Video (online)].

- Reduce the size of the resultant explant defect, creating a smaller pocket more compatible with the thin mastopexy flaps [see Video (online)].
- Homogenize the dissection area bilaterally, enabling us to pursue greater symmetry while redesigning the breast contour area on the chest and positioning flaps to achieve a similar shape between the breasts.
- Recruit breast tissue from thicker areas to thinner areas, enabling internal sutures to camouflage tissue irregularities. (Supplemental Digital Content 1, <http://links.lww.com/PRSGO/D421>.)

This strategy has already been used by the author in 73 patients (146 breasts) and has consistently demonstrated safety and effectiveness, even in cases with minimal breast tissue. Ongoing research is in progress, and soon, new articles on this topic will be forthcoming.

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DISCLOSURE

The author has no financial interest to declare in relation to the content of this article.

PATIENT CONSENT

The patient provided written consent for the use of her image.

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ETHICAL APPROVAL

The study involving human participants was reviewed and approved by ESHO Empresa de Serviços Hospitalares S.A ethics committee (CAAE: 70429523.6.0000.5487) through Plataforma Brasil (approval number: 6.136.220).

REFERENCES

1. Calobrace MB. Elective implant removal and replacement in asymptomatic aesthetic patients with textured devices. *Plast Reconstr Surg*. 2021;147(5S):14S–23S.
2. Collett DJ, Rakhorst H, Lennox P, et al. Current risk estimate of breast implant-associated anaplastic large cell lymphoma in textured breast implants. *Plast Reconstr Surg*. 2019;143(3S):30S–40S.
3. Borba V, Malkova A, Basantsova N, et al. Classical examples of the concept of the ASIA syndrome. *Biomolecules*. 2020;10:1436.
4. Rohrich RJ, Kaplan J, Dayan E. Silicone implant illness. *Plast Reconstr Surg*. 2019;144:98–109.
5. Kirwan L, Wazir U, Mokbel K. Simultaneous salvage auto-augmentation: contemporary strategy for management of the breast explantation patient. *Plast Reconstr Surg Glob Open*. 2023;11:e4860.
6. Schefflan M, Gronovich Y, Maisel Lotan A, et al. What 736 plastic surgeons think about explantation and capsulectomy: a global opinion poll. *Plast Reconstr Surg*. 2022;149:1071e–1079e.
7. Blondeel PN, Hijjawi J, Depypere H, et al. Shaping the breast in aesthetic and reconstructive breast surgery: an easy three-step principle. *Plast Reconstr Surg*. 2009;123:455–462.
8. Tariki JY. Ptose mamária. In: Mélega JM, Viterbo F, Mendes FH, eds. *Cirurgia Plástica: os Princípios e a Atualidade*. Vol. 1, 1st ed. Rio de Janeiro: Editora Guanava Koogan; 2011:1166–1180.
9. Lampert JA, Townsend AN, Shah S, et al. Safely shaping the breast after implant removal and total intact capsulectomy using the mammary imbrication lift and fixation technique. *Aesthet Surg J Open Forum*. 2023;5:ojad037.
10. Borenstein A, Friedman O. Combined breast implant explantation and multilevel mastopexy technique. *Plast Reconstr Surg Glob Open*. 2019;7:e2429.