

A Simple and Effective Intraoperative Technique for Correction of Severe Congenital Breast Asymmetry

Lee L.Q. Pu, MD, PhD

Background: One severe type of congenital breast asymmetry, with a hypoplastic breast on one side and a hyperplastic breast on the other side, has been recognized in the author's practice. Although breast augmentation, mastopexy, and breast reduction used separately or in combination are the most common procedures performed to correct congenital asymmetrical breasts, an effective approach for the correction of such a congenital breast asymmetry has not been established in the literature. In this article, a simple and effective intraoperative approach is described for correction of severe congenital breast asymmetry.

Method: Breast augmentation with an implant for the hypoplastic side and mastopexy or small breast reduction for the hyperplastic side were performed. Symmetry was achieved intraoperatively by an implant for breast augmentation on the hypoplastic side and mastopexy or small reduction, determined by a tailor-tacking technique, on the hyperplastic side.

Results: In the past 2 years, a total of 4 patients with severe congenital breast asymmetry was operated on by the author with this established approach. All patients were pleased about their symmetry and cosmetic outcome without any surgical complications. The resulted breast scars are minimal and well tolerated by patients. No revision or subsequent surgery has even been needed during follow-up.

Conclusion: Correction of severe congenital breast asymmetry is not an easy task and can be difficult. This simple and effective intraoperative approach provides a relatively easy and logical way as a 1-stage procedure for this subgroup of patients with symmetrical and cosmetically pleasing outcome.

Key Words: breast asymmetry, congenital, hypoplastic breast, hyperplastic breast, breast surgery, surgical management

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Congenital breast asymmetry is relatively common among young women.^{1,2} Although correction of tuberous breast deformity, Poland syndrome, and structural chest wall deformities can be considered reconstructive, most less extensive congenital breast asymmetry is typically corrected as cosmetic breast procedures. Often, patients will present for improvement of breast size, shape, or projection without fully realizing their current breast asymmetry, sometimes being quite significant.^{3–5}

One type of congenital breast asymmetry is considered more difficult to correct surgically, in which the patient has 1 hypoplastic breast and 1 hyperplastic breast (Fig. 1). Unfortunately, there is lack of a simple and effective intraoperative technique that can be used to provide a better way for correction of significant congenital breast asymmetry with a consistently good result.^{6–8}

In this article, the author introduces his established intraoperative technique for correction of the severe type of congenital breast asym-

metry. Such a technique may provide a simple and effective way to determine the size and pattern of each breast procedure and make necessary intraoperative adjustments for breast symmetry.

METHODS

The same plastic surgical principles in evaluating the appropriate procedure for a patient with breast hyperplasia seeking a reduction, ptosis seeking a mastopexy, and hypoplasia seeking an augmentation apply to the correction of severe congenital breast asymmetry. The study was approved by our institutional review board (IRB #1759056-1).

The author prefers to work on both sides simultaneously to achieve symmetry because each of the asymmetrical breasts is commonly not in the “normal” position as well. This allows the surgeon to have more freedom and make necessary adjustments to obtain the greatest possible symmetry.

Surgical Techniques

After proper marking for each breast and new nipple position, an augmentation and/or a periareolar mastopexy are planned in the smaller side, whereas mastopexy or small breast reduction is planned for the contralateral larger side (Fig. 2). It is this author's preference that breast augmentation via inframammary incision is performed first for the smaller side. Once a subglandular plane dissection is completed, direct radial scoring of the restricted tissue with an electric cautery under the breast may be needed via the inframammary incision to allow the breast's full expansion after placement of a breast implant. The actual volume of the needed implant can be estimated with a sizer, selected based on the base diameter of the breast, whereas a tailor-tacking technique is performed intraoperatively to determine the pattern of mastopexy or small breast reduction on the contralateral larger side (Fig. 3). A periareolar mastopexy may be added if the patient also has an enlarged areolar circle as seen as a tuberous breast deformity. For the contralateral side, once the pattern of mastopexy or small breast reduction (vertical or inverted T skin pattern) is determined and finalized based on the tailor-tacking technique, such a procedure can be precisely performed (Figs. 4A, B). If only mastopexy is needed, its skin resection design with either vertical or inverted “T” pattern can be determined precisely in this way, and final symmetry can be accomplished with the above procedure. If a small breast reduction is needed, its resection design with either medial pedicle for vertical or inferior pedicle for inverted “T” breast reduction can be determined with the tailor-tacking technique. Very often, an appropriate amount of breast tissue is resected under direct vision, and the rest of the procedure is performed as the same as mastopexy. With the above procedures, a good symmetry can effectively be achieved intraoperatively (Fig. 5). Postoperative care is the same as after each type of aesthetic breast surgery. The incisions usually heal within 2 to 3 weeks, and the patient should avoid heavy lifting for 6 weeks. Scars are usually well tolerated by most patients.

RESULTS

In the past 2 years, 4 patients with severe congenital breast asymmetry were operated on by the author with this effective intraoperative technique. Patient data were summarized in Table 1. All patients were pleased about their symmetry and cosmetic outcome without any surgical

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FIGURE 1. A typical patient with severe congenital breast asymmetry with 1 hyperplastic breast and 1 hypoplastic breast.

complications. The resulted breast scars are minimal and well tolerated by all patients. No revision or subsequent surgery has even been needed for at least 1 year follow-up.

Case 1

A 19-year-old Hispanic woman (case 1 in Table 1) had a significant breast asymmetry with right hypoplastic breast and left hyperplastic breast (Fig. 6A). She also had an enlarged areolar circle on both sides. Because she liked the size of her left breast, she was offered left mastopexy not breast reduction. Her right breast augmentation was performed subglandularly via inframammary incision with a 225-cc moderate plus silicone implant after scoring of the breast base for correction of her breast asymmetry. The right periareolar mastopexy was also performed for correction of the enlarged areolar circle. Her surgery went well, and her postoperative course was uneventful. The result was shown at 11 months follow-up (Fig. 6B).

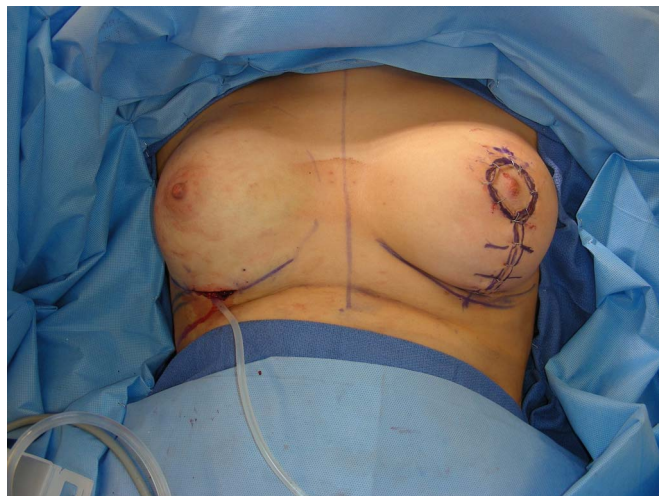


FIGURE 3. An intraoperative view showing the planning for correction of severe congenital breast asymmetry. The right breast augmentation with an implant sizer is just completed, and a tailor-tacking technique is used for determination of the skin pattern for left vertical mastopexy.

Case 2

A 23-year-old African American woman (case 3 in Table 1) had a significant breast asymmetry with right hyperplastic breast and left hypoplastic breast (Fig. 7A). She also had an enlarged areolar circle on both sides. The patient underwent right inverted T breast reduction with removal of 70 g of breast tissue and left subglandular breast augmentation via inframammary incision with a 550-cc moderate plus silicone implant after scoring of the breast base for correction of her breast asymmetry. The left periareolar mastopexy was also performed for correction of the enlarged areolar circle. Her surgery went well, and her postoperative course was uneventful. The result was shown at 4 months follow-up (Fig. 7B).

DISCUSSIONS

Patients with severe congenital breast asymmetry present with a hypoplastic breast on one side and a hyperplastic breast on the other

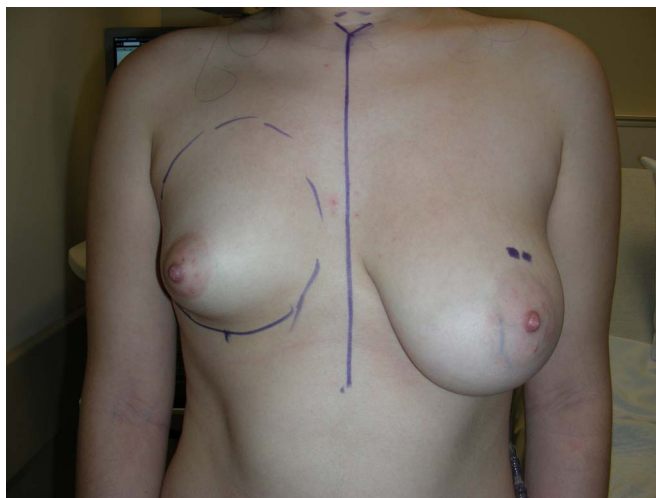


FIGURE 2. A preoperative marking for a patient in the standing position. The outline of the right breast for breast augmentation is marked, and the new nipple position for the left tailor-tracking vertical mastopexy is also marked.

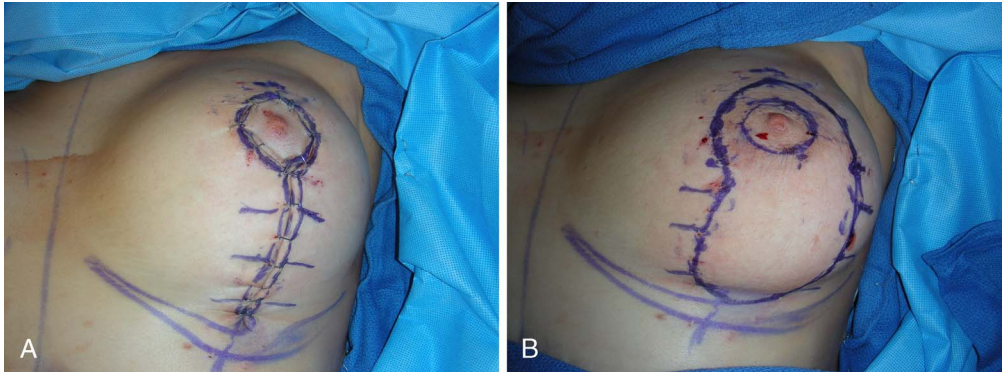


FIGURE 4. A, An intraoperative close-up view showing a tailor-tacking technique that is used for determination of the skin pattern for left vertical mastopexy. B, The skin pattern for left vertical mastopexy determined by the tailor-tacking technique.

side. To correct such a condition, the surgeon should operate on both sides to achieve symmetry. Several common breast surgical procedures such as breast augmentation with implant, mastopexy, or breast reduction can be performed. In addition, a combination of breast augmentation and mastopexy can also be performed for the same goal.^{6–8} However, how those procedures are performed simultaneously or in combination have not been established intraoperatively in the literature, and a good symmetry after those procedures is still difficult to accomplish in one setting based on the author's extensive clinical experience.

In this article, the author's intraoperative technique is described. Breast augmentation via inframammary incision is performed on the hypoplastic side. The restricted base of the breast can be released through an inframammary incision, and an appropriate breast implant sizer is then inserted and filled to a needed amount with saline. Mastopexy or even small breast reduction is performed on the hyperplastic side. The skin pattern for either vertical or inverted T mastopexy or for small breast reduction can be determined with a tailor-tacking technique. With this relatively simple and effective technique, breast symmetry can be achieved intraoperatively, a proper size of the breast implant can be selected, and a proper pattern for mastopexy or small breast reduction can also be determined. Good symmetry can be achieved, and no additional symmetry

procedures are needed although composite breast augmentation can be a new option to enhance cosmetic outcome or symmetry.⁹ In addition, a periareolar mastopexy may be performed on the hypoplastic side to enhance cosmetic outcome if tuberous breast deformity is also presented.¹⁰

It is more so the rule that when you correct asymmetric breasts, some residual asymmetry may be left because of the nature of the breasts themselves, and a small amount of asymmetry may occur in the healing phase. Patients should be counseled during their preoperative evaluation that a secondary procedure is not an operative failure of the primary procedure but an expected step to obtain as symmetric result as possible. Serial fat grafting can also be performed on the hypoplastic side as a more contemporary approach if the patient desires to do so and there are adequate donor sites for fat grafts.¹¹

This intraoperative technique provides a simple and effective way to achieve breast symmetry in 1 stage for correction of severe congenital breast asymmetry. It is relatively easy to learn and with a fewer intraoperative adjustment. However, the surgeon should master his or her skills on tailor-tacking technique so that mastopexy or small breast reduction on the hyperplastic side can be safely performed. Obviously, a small sample size is a major drawback of this series. In addition, there is lack of patient-reported outcome measure by The Breast-Q.¹²

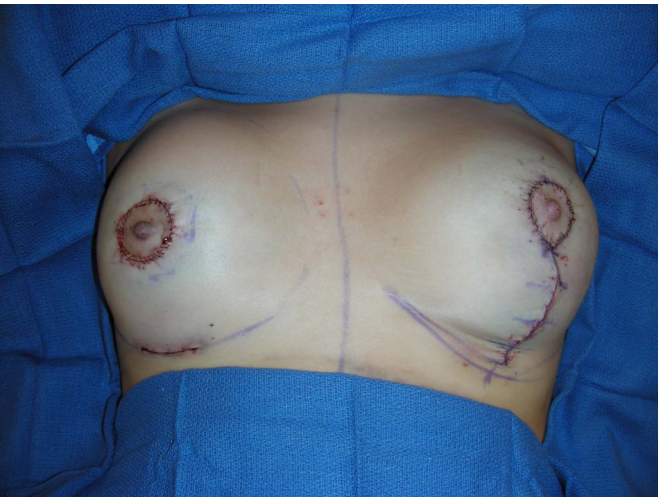


FIGURE 5. An intraoperative view showing the immediate result for the same patient after right breast augmentation with an implant and a periareolar mastopexy and left vertical mastopexy with a tailor-tacking technique.

TABLE 1. Patient Data

	Age, y	Deformities	Procedures	Outcome
Patient 1	19	R hypoplastic	R breast augmentation with a 225-cc implant and periareolar mastopexy	Satisfactory
		L hyperplastic	L vertical mastopexy	
Patient 2	20	R hypoplastic	R breast augmentation with a 325-cc implant	Satisfactory
		L hyperplastic	L inverted T mastopexy	
Patient 3	23	R hyperplastic	R inverted T breast reduction (70-g reduction)	Satisfactory
		L hypoplastic	L breast augmentation with a 550-cc implant and periareolar mastopexy	
Patient 4	14	R hypoplastic	R breast augmentation with a 150-cc saline implant and periareolar mastopexy	Satisfactory
		L hyperplastic	L vertical mastopexy	

R, right; L, left.

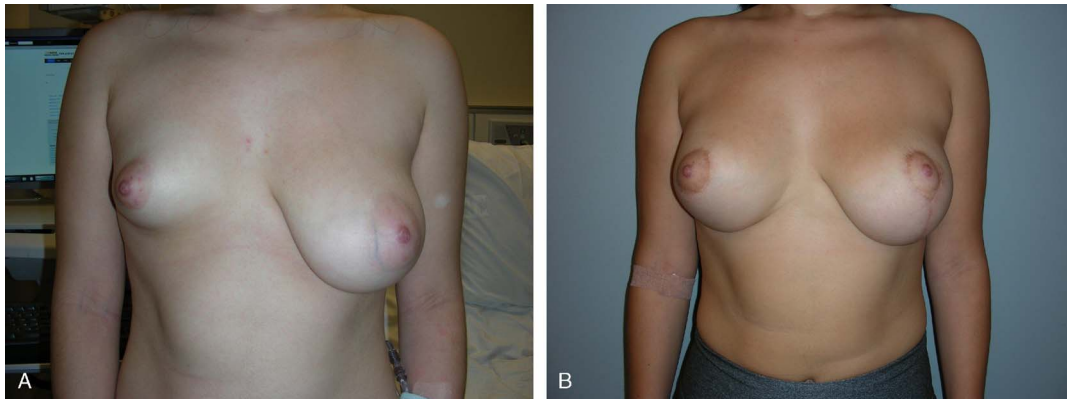


FIGURE 6. A, A preoperative view for case 1. B, Results at the 11-month follow-up after the 1-stage procedures on both breasts.

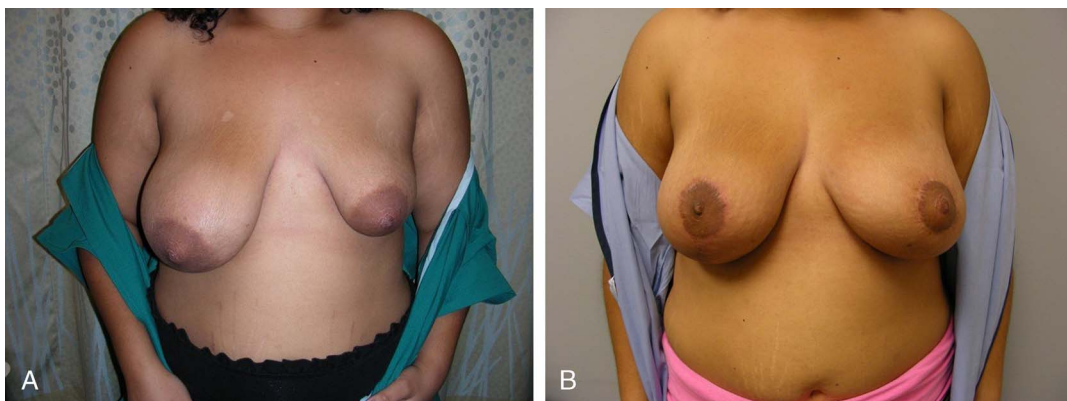


FIGURE 7. A, A preoperative view for case 2. B, Results at the 4-month follow-up after the 1-stage procedures on both breasts.

Another limitation of this study is that such a series is based on a single surgeon's clinical experience. It is worthwhile to mention that future revision surgery, such as implant exchange for size, re-do mastopexy, or even small breast reduction for size or shape may be necessary if the patient develops additional asymmetry after long-term follow-up. This can be true after any plastic surgery of the breast for younger women. Fortunately, such a revision procedure is usually minor compared with the initial symmetry procedures and can be performed safely without difficulty to achieve better symmetry.

CONCLUSION

A simple and effective intraoperative technique is described. It may provide a relatively easy and logical way as a 1-stage procedure for this subgroup of patients with symmetrical and cosmetically pleasing results. However, the degree of artistry required by the surgeon to visualize the preoperative asymmetry, choose the correct procedure, implement the correct procedure, and tailor any intraoperative adjustments may be needed for an optimal result.

REFERENCES

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