

Enhanced Breast Shape through Auto-Augmentation Mastopexy Combined with Lipofilling

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ABSTRACT

Auto-augmentation mastopexy associated with breast lipofilling is the best method of contouring the upper pole of the breast in patients who do not require augmentation with breast implants concomitant with breast lift.

Solving the volumetric deficit of the upper pole of the breast involves the use of additional techniques to mastopexy and breast lipofilling is in our opinion the most reliable method

In the cases of self-augmentation mastopexy associated with lipofilling, the volumetric deficit of the breast upper pole was minor and was noticed in 25% of cases compared to the situations of auto-augmentation breast lift where the volumetric deficit of the upper pole was small or moderate and was noted in 75% of the cases. The follow up was 3 years after surgery. Breast lipofilling techniques ensure a natural volume of the breast 3 years after surgery if associated with auto-augmentation mastopexy in cases of breast ptosis with adequate breast volume.

KEYWORDS: mastopexy, breast lipofilling, auto-augmentation, breast surgery

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INTRODUCTION

Breast ptosis is the medical term that describes sagging breasts, a common phenomenon among women, especially after certain events or changes in their lives. Breast ptosis can be classified according to the degree of drooping of the breasts, and this is often measured by the position of the nipple in relation to the inframammary fold (the fold under the breast).

There are several factors that can contribute to breast ptosis, including:

- Age: Over time, the skin and ligaments that support the breasts lose their elasticity and firmness.
- Pregnancy and breastfeeding: Hormonal changes, increase and decrease in breast volume during and after pregnancy can lead to stretching of the skin and tissues.

- Significant weight changes: Rapid weight loss or gain can affect skin elasticity.
- Genetics: Genetic factors can influence the shape and structure of the breasts and their susceptibility to ptosis.
- Gravity: The continued effects of gravity can contribute to sagging breasts over time⁵.

Depending on the degree of ptosis of the breasts, there are different breast reshaping and lifting techniques (mastopexy) associated or not with techniques that volumetrically reshape the breasts.

In practice, we encounter two situations: breast ptosis (of varying degrees) associated with breast hypotrophy and breast ptosis (of varying degrees) associated with normal or slightly increased glandular volume. In the second situation, the goal is the correction of ptosis, the remodeling of the breast areolas, but also a natural and "full" appearance of the

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breast. In this situation, we opt for mastopexy with auto-augmentation associated with breast lipofilling for augmentation of the upper pole of the breast ¹.

This technique ensures a beautifully shaped breast, a long-lasting result and has the advantage of not augmenting the breast with breast implants, thus canceling the inherent risks of breast implants. The upper pole fullness is very important for a better result. All plastic surgeons know that no mastopexy technique, even with auto-augmentation, can achieve a satisfactory fullness of the upper pole of the breast, except when breast implants are used ^{2,3}.

Breast lipofilling (superolateral and superomedial quadrants) combined with auto-augmentation mastopexy restores the volume of the upper pole of the breast without the use of breast implants. This combined technique gives a full and natural appearance to the breast and a persistence of the result for a long time.

MATERIALS AND METHODS

Women with breast ptosis and moderate or large volume of breast tissue and who do not wish to use breast implants are the ideal candidates for breast lift with self-augmentation. Mastopexy with auto-augmentation uses the own mammary gland, remodeled, raised and fixed in a new position in such a way as to ensure an increased volume and a natural breast shape similar to a breast implant.

Even in cases of mastopexy (breast lift) with auto-augmentation, the upper pole of the breast will have a volumetric deficit because the transposition of the mammary gland will ensure a satisfactory volume only in the central part and the lower pole of the breast.

In my practice, I used the auto-augmentation technique with superior based pedicle, which allowed me to increase the central and upper portion of the breast by raising the lower part of the mammary gland on its dermoglandular pedicle. Even in this situation, due to the aging process and gravitational factors, after 3 years postoperatively, I noticed a volumetric deficit in the upper pole of the breasts.

I decided to use fat transfer for the upper pole to augment this zone of the breast. To increase the volume of the upper pole I combine fat transfer (breast lipofilling) with auto-augmentation mastopexy in all cases of ptosis with normal or excessive breast glandular volume that does not require breast reduction. I consider that auto-augmentation is also a great option for breast augmentation without implants if you want to obtain a natural breast result.

We studied 172 auto-augmentation mastopexy in the interval between 2010-2020. In 96 cases we performed only breast lift with auto-augmentation and in 76 cases we associated this technique with breast lipofilling.

In 75% of the cases in which we performed only auto-augmentation mastopexy, the evaluation carried out 3 years

postoperatively showed a small or moderate volumetric deficit at the level of the upper pole of the breasts, but a beautiful conical shape of the breasts. The patients were satisfied with the shape of the breasts, but approximately 50% noticed the volumetric deficit of the upper pole of the breasts without perceiving it in a negative sense.

In my practice, the evaluations performed 3 years postoperatively, I noticed that auto-augmentation performed during the breast lift gives a much better result than the simple mastopexy. However, the presence of a volumetric deficit at the upper pole of the breast is noted because the auto-augmentation technique does not fully solve the filling of the superior breast pole.

To solve this "problem" we combined the auto-augmentation mastopexy with breast lipofilling (fat transfer). This method required one or two breast lipofilling sessions, the first simultaneously with the breast lift and the second 6-12 months after the first intervention. In 30% of cases, the patient was satisfied with the result 6 months after the first lipofilling session, and in the remaining 70% of cases, the second session was performed between 6-12 months after the breast lift.

RESULTS

In the cases in which we associated fat transfer with auto-augmentation mastopexy, the assessment made 3 years after the operation showed a natural shape of the breasts with a minor volumetric deficit at the upper pole of the breasts in about 25 % of cases. In comparison, in the cases where we practiced auto-augmentation breast lift alone, the volumetric deficit of the upper pole of the breast was encountered in 75% of the cases. The small volumetric deficit of the upper pole of the breast after breast lipofilling is due to the phenomena of adipose resorption which varies between 30-50% of the amount of injected fat. In each operative stage, we injected approximately 200-300 ml of adipose tissue.

The results obtained by fat augmentation of the upper pole of the breasts in association with auto-augmentation mastopexy were superior to those obtained by auto-augmentation alone. The results were evaluated 3 years postoperatively.

Breast lift surgery (mastopexy) is a surgical procedure designed to lift and reshape the breasts, providing a firmer and more youthful appearance. Although it is a frequently performed operation with high success rates, local complications can occur. It is important that patients are well informed about these risks before deciding to undergo such an intervention. In both groups of cases studied, the complication rate was low and approximately similar, with the exception of fat resorption nodules and calcifications that appeared in 21 cases where fat transfer was performed (diagnosed by ultrasound).

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Case 1. Auto-Augmentation Mastopexy with Breast Lipofilling



Fig 1A

Fig 1B

Case 2. Auto-Augmentation Mastopexy with Breast Lipofilling

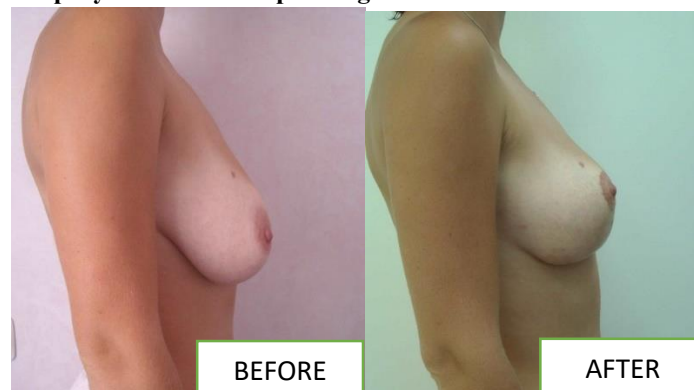


Fig 2A

Fig 2B

Case 3. Auto-Augmentation Mastopexy with Breast Lipofilling

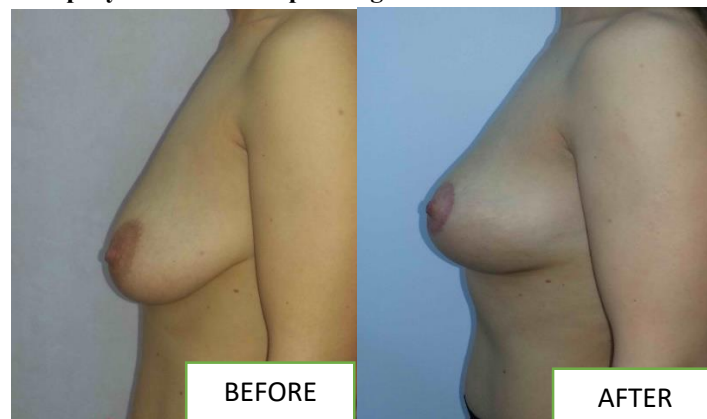


Fig 3A

Fig 3B

DISCUSSIONS

Upper pole breast lipofilling combined with auto-augmentation mastopexy can be an effective way to enhance breast shape and volume using a natural approach. Not all the transferred fat will survive, and multiple sessions might be needed to achieve the desired results. The procedure requires sufficient donor fat, so it may not be suitable for very lean patients. As with any surgical procedure, there are risks such as infection, asymmetry, and fat necrosis^{4,5}.

Combining breast lipofilling with auto-augmentation mastopexy can provide several advantages over a simple breast lift. Here are some key points to consider:

1. Volume Restoration and Enhancement:

- Simple Breast Lift: Primarily focuses on lifting and reshaping the breast by removing excess skin and tightening the surrounding tissue. It does not add volume to the breast.
- Auto-augmentation Breast Lift with Lipofilling: Involves the addition of fat grafting (lipofilling) to the procedure. This can enhance breast volume (especially to the upper pole) and contour by using the patient's own fat, typically harvested from areas like the abdomen or thighs. This provides a more natural and fuller appearance.

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2. Improved Contour and Shape:
 - Simple Breast Lift: Improves the position of the breasts but may not significantly change the overall contour or add fullness, especially in the upper pole of the breast.
 - Auto-augmentation Breast Lift with Lipofilling: Allows for better contouring and shaping, particularly enhancing the upper pole fullness and overall breast symmetry. The fat grafting can fill in areas that might otherwise appear flat or hollow.
3. Natural Look and Feel:
 - Simple Breast Lift: Results in a firmer, lifted breast, but may not achieve a very natural look, particularly if there was significant volume loss.
 - Breast Lift with Lipofilling: The use of the patient's own fat can create a more natural look and feel compared to implants or a simple lift, as the added volume is soft and integrates well with the existing breast tissue.
4. Longevity of Results:
 - Simple Breast Lift: The results can be long-lasting but are subject to changes over time due to aging, gravity, and weight fluctuations.
 - Breast Lift with Lipofilling: Combining fat grafting with the auto-augmentation breast lift can provide more durable results. The transferred fat that successfully integrates with the breast tissue tends to remain over the long term, though some of the fat may be reabsorbed by the body initially.
5. Scarring and Recovery:
 - Simple Breast Lift: Involves incisions and resultant scarring, which can vary based on the technique used (anchor, lollipop, or donut lift).
 - Breast Lift with Lipofilling: While it also involves incisions for the lift, the additional liposuction sites for fat harvesting may require additional recovery time and can leave small scars. However, the benefits of improved shape and volume often outweigh these considerations for many patients.
6. Customization and Patient Satisfaction:
 - Simple Breast Lift: Offers less flexibility in customizing the breast shape and volume.
 - Auto-augmentation Breast Lift with Lipofilling: Provides greater customization options, allowing

surgeons to tailor the procedure to achieve specific aesthetic goals, often leading to higher patient satisfaction.

CONCLUSIONS

All mastopexy techniques restore the natural shape of the breast but leave a volumetric deficit in the upper pole of the breast. Even mastopexy techniques with auto-augmentation cannot restore the volume of the upper pole of the mammary gland.

The comparative evaluation of the results obtained 3 years postoperatively showed much better results in the case of auto-augmentation breast lift associated with breast lipofilling compared to the breast ptosis cases solved only by mastopexy with auto-augmentation. The criteria taken into account were the shape and volume of the breast, especially the upper pole volume.

We recommend fat transfer for the upper pole of the breast in all cases of breast lift where we do not use breast implants, even if the technique involves mastopexy with auto-augmentation.

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