

Importance of the Periareolar Approach in the Augmentation of the Ptotic Breast

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This is a retrospective review of 66 patients with grade II breast ptosis who underwent augmentation mammoplasty from January 1996 to January 2001. Of these 66 patients, 17 were augmented using a periareolar approach, and 49 were augmented using an inframammary approach. All patients had textured saline implants, and 64 of 66 patients had the implants placed in a submuscular position. Mean photographic follow-up was 4.8 months (range, 6 weeks–1 year). When compared with an inframammary approach in the presence of grade II ptosis, a periareolar approach results in improved fill of the lower pole of the breast, improved centralization of the nipple on the breast mound, and lessening or elimination of undesirable upper pole fullness.

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Excellent results can be achieved consistently by augmenting the nonptotic breast using the standard approaches, including inframammary, periareolar, and transaxillary.^{1,2} Augmentation of the ptotic breast presents a greater challenge.^{3–5} For patients with grade III ptosis, mastopexy is generally required in addition to augmentation. The additional scarring associated with lifting techniques is justified to achieve a good breast appearance and is accepted by patients with this aesthetic problem.

Patients with grade II breast ptosis also benefit from augmentation mammoplasty. However, the final aesthetic results can be compromised because the nipple–areola complex often appears low, and upper pole fullness often appears excessive. Generally these aesthetic criticisms are not severe enough to warrant the additional scarring of a mastopexy. Overall, patient satisfaction still remains extremely high.

It is my observation during the past 5 years that patients with grade II breast ptosis who undergo augmentation using an inferior periareolar approach with release of the inferior Cooper's liga-

ments and placement of the breast implant in a subpectoral position have greater fill of the lower pole of the breast, reduced upper pole fullness, and improved centralization of the nipple–areola complex on the breast mound when compared with patients who have had augmentation through an inframammary approach.

Materials and Methods

I reviewed retrospectively all patients with grade II breast ptosis who underwent augmentation mammoplasty from January 1996 to January 2001. This was a photographic review. Mean photographic follow-up was 4.8 months (range, 6 weeks–1 year). Only patients defined as having grade II breast ptosis by the Renault criteria were included in this study.⁶ These patients had nipple–areola positions below the level of the inframammary fold, but above the most inferior contour of the breast mound. Five patients were augmented with McGhan style 468 textured anatomic implants. Sixty-one underwent augmentation with McGhan style 168 textured round implants.

All patients were augmented using standard inframammary or periareolar approaches.^{7,8} These techniques have been described in detail in previous publications and are not reiterated here. The inferior periareolar approach requires dissection through the inferior portion of the breast mound and release of the inferior Cooper's ligaments as the inferior border of the pectoralis major muscle is approached. Compared with the periareolar approach, the inframammary approach requires little to no dissection through the breast mound. Submuscular pockets were created to fit the base diameter of the breast implant selected.

Results

Typical results of breast augmentation in the presence of grade II ptosis using an inframam-

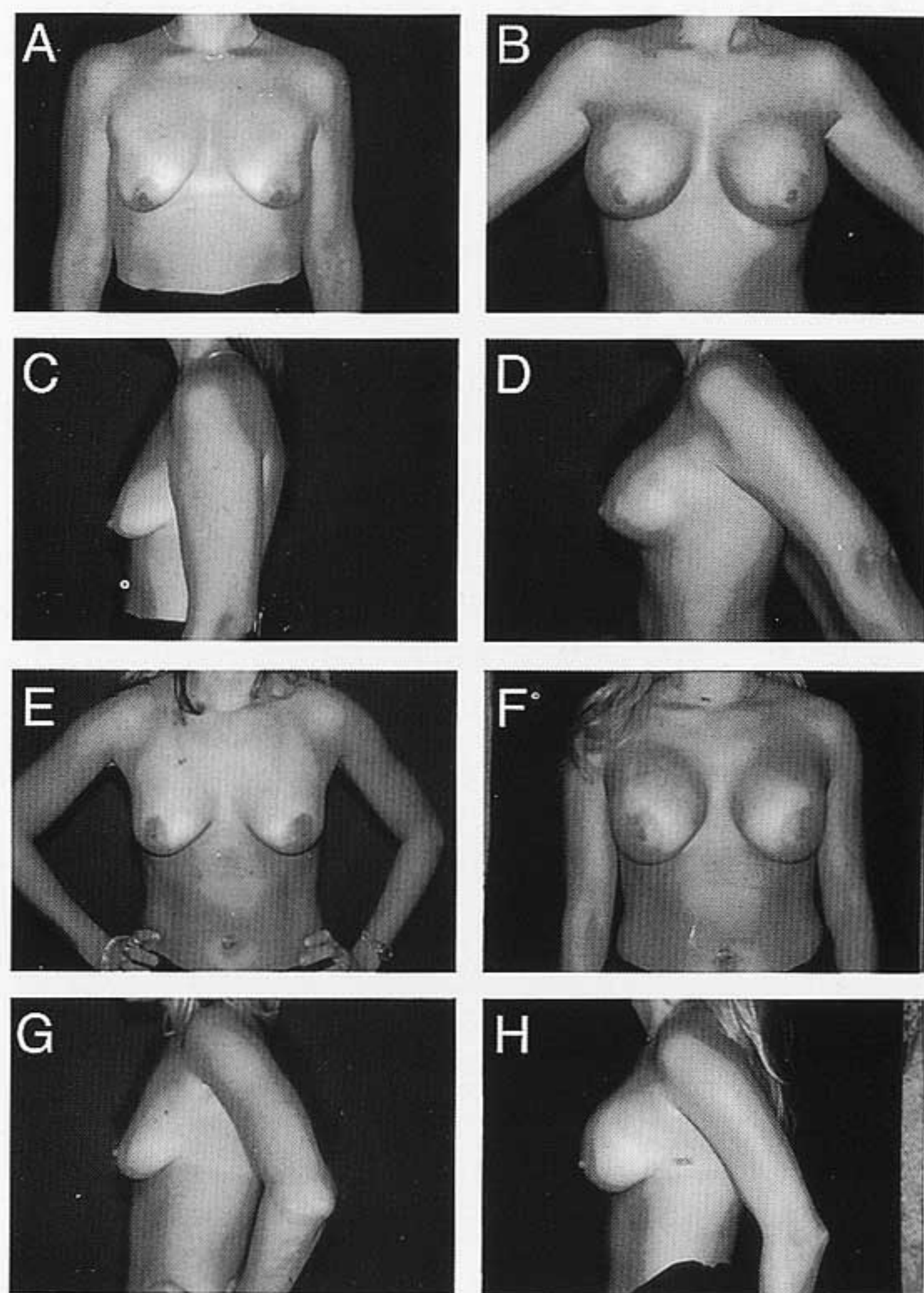


Fig 1. Grade II ptotic breasts augmented using an inframammary approach. (A, C, E, G) Preoperative view. (B, D, F, H) View 6 months postoperatively. Note the excessive upper pole fullness and low nipple position.

mary approach are shown in Figure 1. Representative results using a periareolar approach are shown in Figure 2. When compared with the inframammary approach in the presence of grade II breast ptosis, the periareolar approach offers consistent decreased upper pole fullness, increased fill of the lower contour of the breast, and improved centralization of the nipple-areola complex on the breast mound.

Discussion

Many authorities have discussed the well-known undesirable aesthetic sequelae of augmenting the ptotic breast.^{4,5,9,10} In cases of grade II ptosis, undesirable upper pole fullness and low nipple position are common. Release of the inferior Cooper's ligaments allows the implant to sit lower on the chest wall, thus minimizing these problems. The differences between inframam-

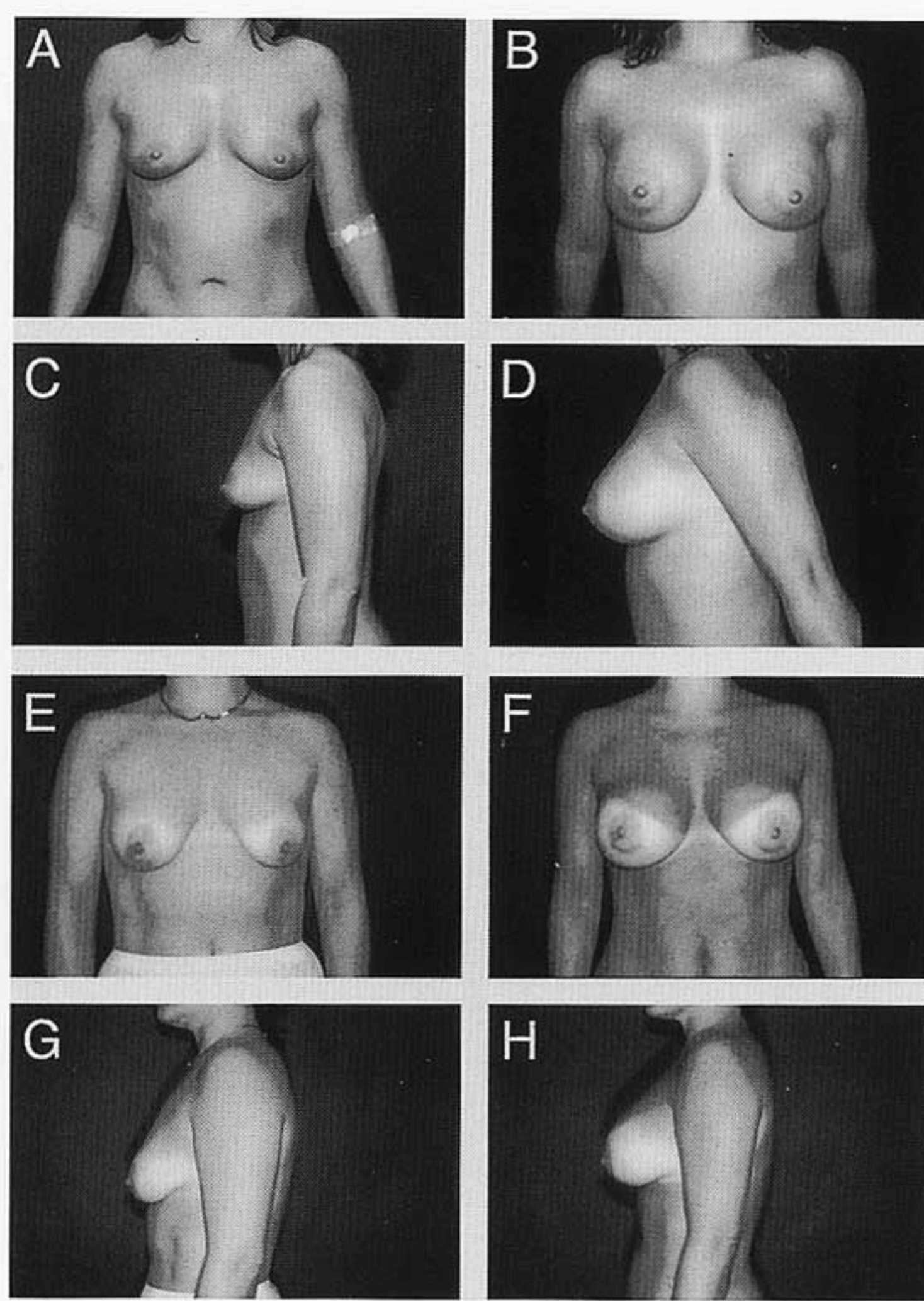


Fig 2. Grade II ptotic breasts augmented using a periareolar approach. (A, C, E, G) Preoperative view. (B, D, F, H) View 6 months postoperatively. Note the less upper pole fullness and improved position of the nipple on the breast mound.

mary and periareolar approaches in the presence of grade II breast ptosis are illustrated in Figure 3.

Other techniques dealing with these undesirable sequelae include the use of anatomic implants.^{11,12} However, their efficacy has been questioned, particularly in view of a recent report by Hamas.¹³ I have had similar results with use of anatomic and round implants.

Subglandular implant placement has also been advocated as an alternative for treatment of breast ptosis. The advantages and disadvantages of submuscular versus subglandular placement are beyond the scope of this paper, but have been reviewed recently.^{2,14,15} I have observed the benefits of submuscular placement and advocate submuscular placement except in cases of tubular deformity, severe asymmetry, or unilateral aplasia.

Lowering of the inframammary fold is an essential maneuver for augmentation of the nonptotic

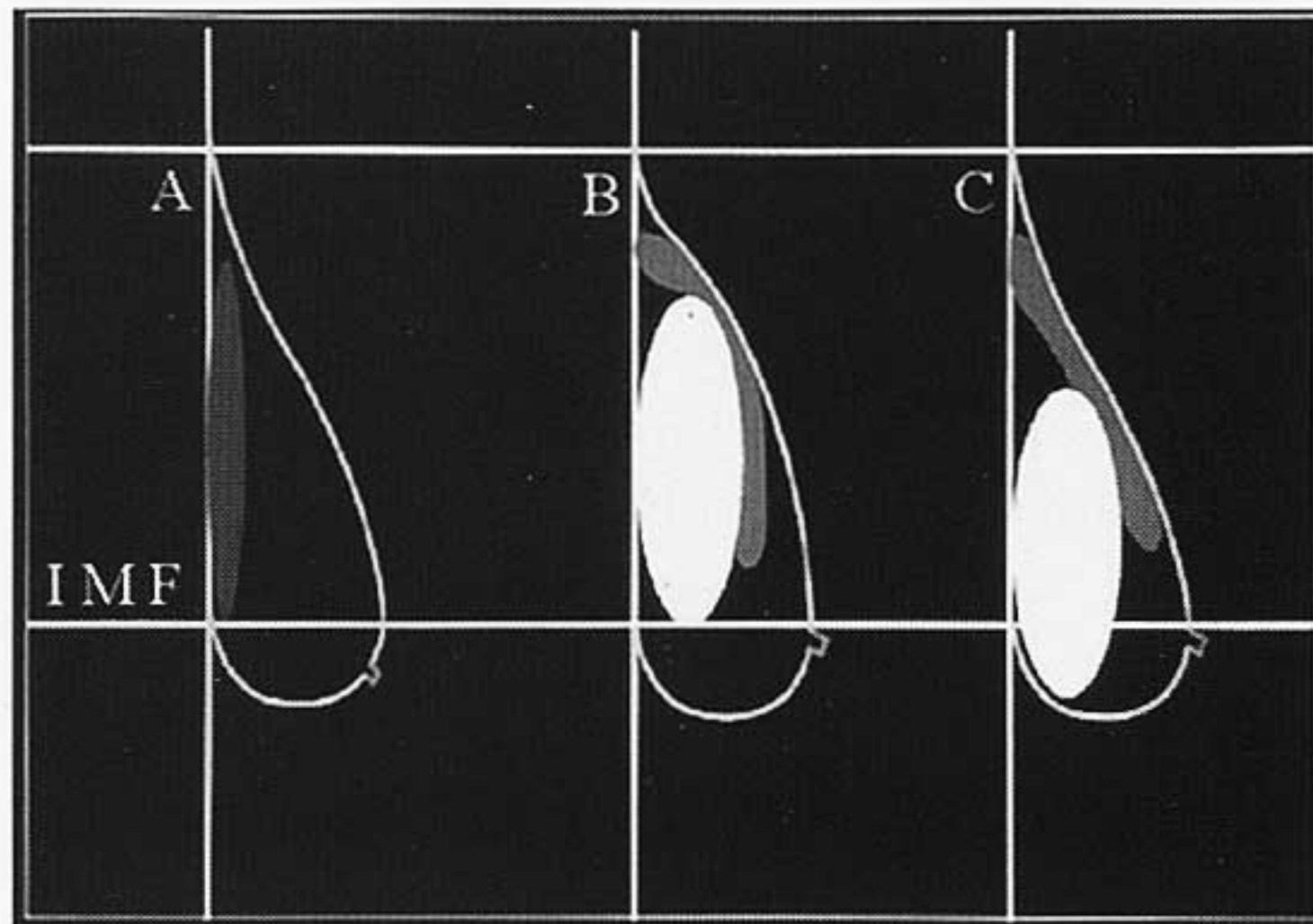


Fig 3. Anatomic differences between inframammary and periareolar approaches in the presence of grade II breast ptosis. (A) Preoperative view. (B) Inframammary approach. (C) Periareolar approach.

or minimally (grade I) ptotic breast. Lowering the inframammary fold in the presence of grade II ptosis, particularly through an inframammary approach, results in a visible, horizontal ridge on the lower breast mound. This is one cause of the "double-bubble" phenomenon that should be avoided. The inferior periareolar approach allows expansion of the implant into the lower pole of the breast mound. The augmented breast therefore sits lower on the chest wall, but the inframammary fold is not lowered (Fig 3C).

Large (>350 ml) implants have also been advocated for treatment of breast ptosis.¹⁶ I agree with Tebbetts⁸ that larger implants do provide some lift for the ptotic breast, but excessively large implants compromise the soft tissues and are a source of patient morbidity. The largest implants used in this series were 390 ml, with the largest number of patients receiving 330-ml implants. My observation is that the inferior periareolar approach is equally important as implant size in the treatment of breast ptosis.

Another method of dealing with these undesirable sequelae is by lifting the ptotic breast mound using several well-known techniques. However, all are associated with substantially more scarring and incision on the breast mound. I reserve mastopexy in conjunction with augmentation for the treatment of grade III ptosis.

Although the periareolar approach has been advocated as an excellent technique for augmentation mammoplasty for many years, I think it is

the technique of choice for augmenting the grade II ptotic breast.

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Open Discussion

Lisle Wayne, II, MD (Evansville, IN): I enjoyed Dr Lindsey's paper about the periareolar approach. I would suggest a couple of things as I looked at your slides. I think Scott Spear coined the term

concentric mastopexy a few years ago, which is sort of gilding the lily. You know, if you look at a breast straight on and if there is a down-turning of the nipple, it's nice to go through all the classification of those degrees of ptosis. But if there is a down-turning of the nipple, I would say that 70% of the time with my patients, I would make my incision superior periareolar, resect some of the white skin above the areola, and you really get the nipple and the nipple-areola complex up into a much more attractive position in relationship to the rest of the breast tissue. The other thing—and this is a personal preference—I don't use any textured implants. I use all smooth-wall devices, which I think move a lot better. Personally, I like the prepectoral position, but that's just personal.

Karen Singer, MD (St. Petersburg, FL): Dr Lindsey, you mentioned, I believe, in your talk that you would lower the inframammary fold? I would like your comments on that. Second—about the upper fullness—I would consider using a different implant. There are certain of the reconstructive kinds that actually have very little upper fullness that might correct that problem.

Dr Lindsey: In response to your second observation about using a different kind of implant, Dennis Hammond does have a recent article, I believe in *Operative Techniques in Plastic and Reconstructive Surgery*, that discusses the use of the anatomic implant to improve the lower fill of the breast. That has not been my experience in using those anatomic implants. I tend to go with Dr Hamas of Dallas, who very nicely illustrated both radiographically and photographically that there is not a lot of difference in final aesthetic result regardless of whether you use an anatomic implant. At least in my experience, I have not been able to replicate those results, and I tend to go with Dr Hamas on that issue. Regarding lowering of the inframammary fold, I think that is an extremely important technique to be included in

augmentation of the nonptotic breast, which has been demonstrated by numerous individuals, including John Tebbetts. However, if you have grade II breast ptosis and the skin is overlapping on the lower chest wall skin, and you try to lower that inframammary fold, I believe that is a setup for a ridge or double-bubble phenomenon. If you try that in grade II ptosis, you are making a mistake.

Dr Singer: Yes, I understand. About the type of implant, I agree with that comment, and the paper that Dr Hamas gave, but I was referring to the reconstructive implants that don't give as much fullness as the anatomic ones do.

Dr Lindsey: I think that there are a number of excellent low-height anatomic implants available for breast reconstruction. My favorite is the MV133 low-profile, textured implant. I have only used that in reconstruction, in part because of cost-prohibitive factors. The cost of one of the reconstructive implants is around \$1200, which in my patient population is prohibitive for cosmetic reasons.

David S. Reid, IV, MD (High Point, NC): Dr Lindsey, how do you get from the periareolar incision to the pocket? Do you tunnel through the breast? And second, do you have an anatomic reason for the areolar incision group having a better aesthetic result than the other group?

Dr Lindsey: I think if you would flip back to the diagram, when you release Cooper's ligaments in the inferior aspect of the breast mound, that allows for a lower implant position on the chest wall and improves fill in the lower portion of the breast. The incision I make is from three o'clock to nine o'clock on the inferior aspect of the areola. Then I dissect subcutaneously to the inferior aspect of the breast, leaving approximately a 1-cm skin flap there. Then I find the inferior border of the pectoralis major muscle and make the pocket from there. That's the way I do these operations.