

The Dermal Overlap Subareolar Mastopexy: A Preliminary Report

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Background: The major disadvantage of the circumareolar mastopexy is the risk of hypertrophic scarring and relapse or widening of the areola.
Objective: The author describes a new technique that gives added support to the scar by means of a dermal overlap flap that is buried under the areola.
Methods: A doughnut incision is made, with the size of the outer circle dependent on the amount of ptosis to be corrected. The areolar flap is elevated close to the nipple pedicle, a circumferential incision is made through the dermis between the pedicle and the outer incision, and the dermal edge is elevated. After the mastopexy, closure is performed with nonabsorbable purse-string sutures.
Results: Initial results in a series of 34 cases have been encouraging, with no loss of nipple sensation and with less scarring and more natural nipple projection than occurs in conventional doughnut mastopexy procedures.
Conclusions: This technique can be used to reduce scarring in procedures such as mastopexy, breast reduction, and tubular breast correction. (Aesthetic Surg J 2001;21:423-427.)

The major disadvantage of the circumareolar mastopexy is the scar, which may become hypertrophic because of either excessive tension at the areolar edge or enlargement of the areola as a result of suture failure. A new technique is described that gives added support to the scar by means of a dermal overlap flap, thus reducing tension at the areolar border. This preliminary report is intended to describe the surgical technique. Statistics are currently being gathered and will be presented in a follow-up article.

Technique

The skin incisions are outlined so as to preserve as much areola skin as possible. The placement of the outer incision is dependent on the amount of ptosis to be corrected. It is usually placed from 0.5 to 2 cm from the superior edge of the areola (Figures 1 and 2). The "doughnut" incision is made, and the rim of skin is removed by de-epithelialization (Figure 1, B). The areolar flap is elevated at full thickness close to the nipple pedicle (Figure 1, C). A circumferential incision is then made through the dermis approximately

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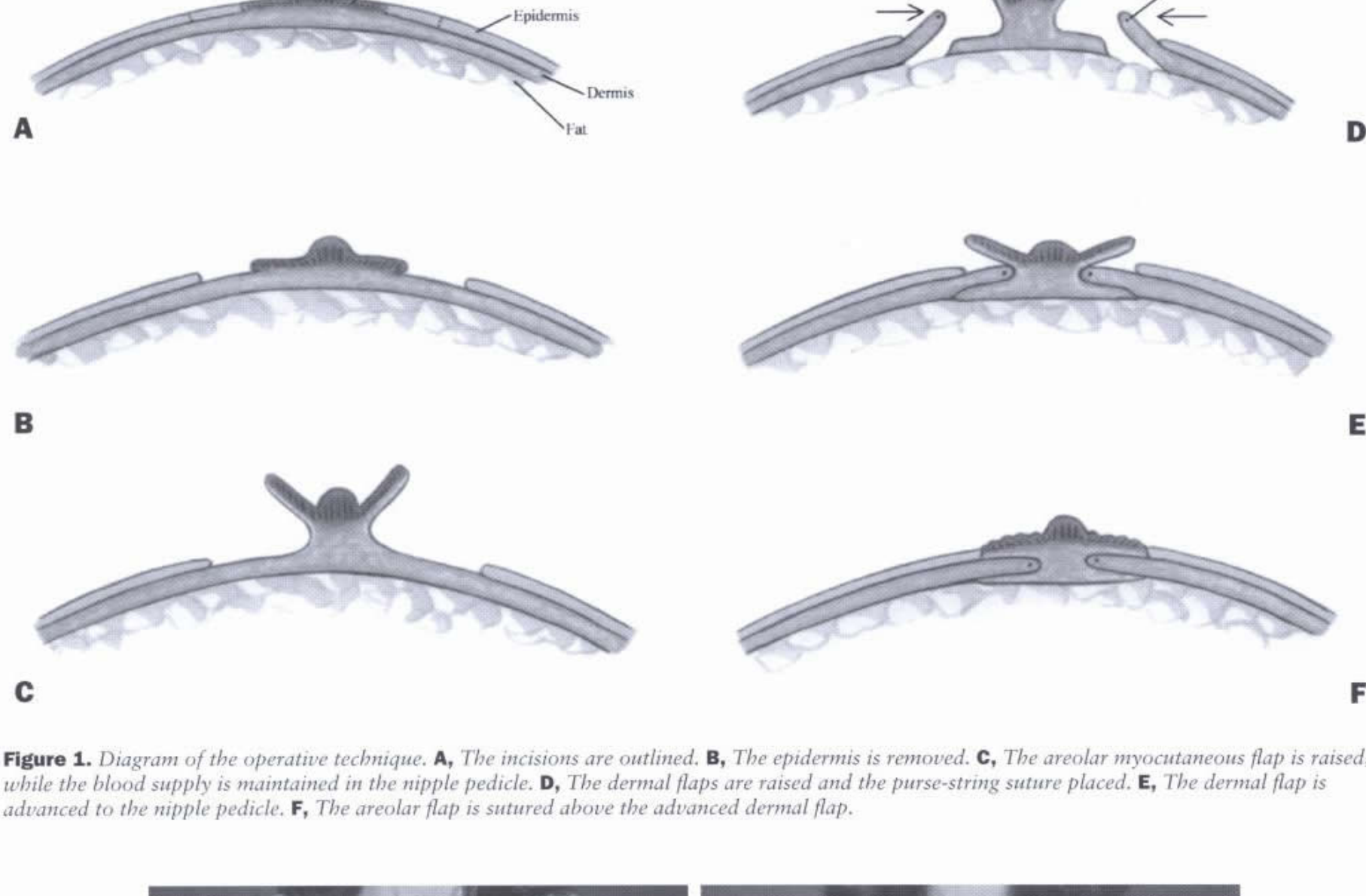


Figure 1. Diagram of the operative technique. A, The incisions are outlined. B, The epidermis is removed. C, The areolar myocutaneous flap is raised, while the blood supply is maintained in the nipple pedicle. D, The dermal flaps are raised and the purse-string suture placed. E, The dermal flap is advanced to the nipple pedicle. F, The areolar flap is sutured above the advanced dermal flap.

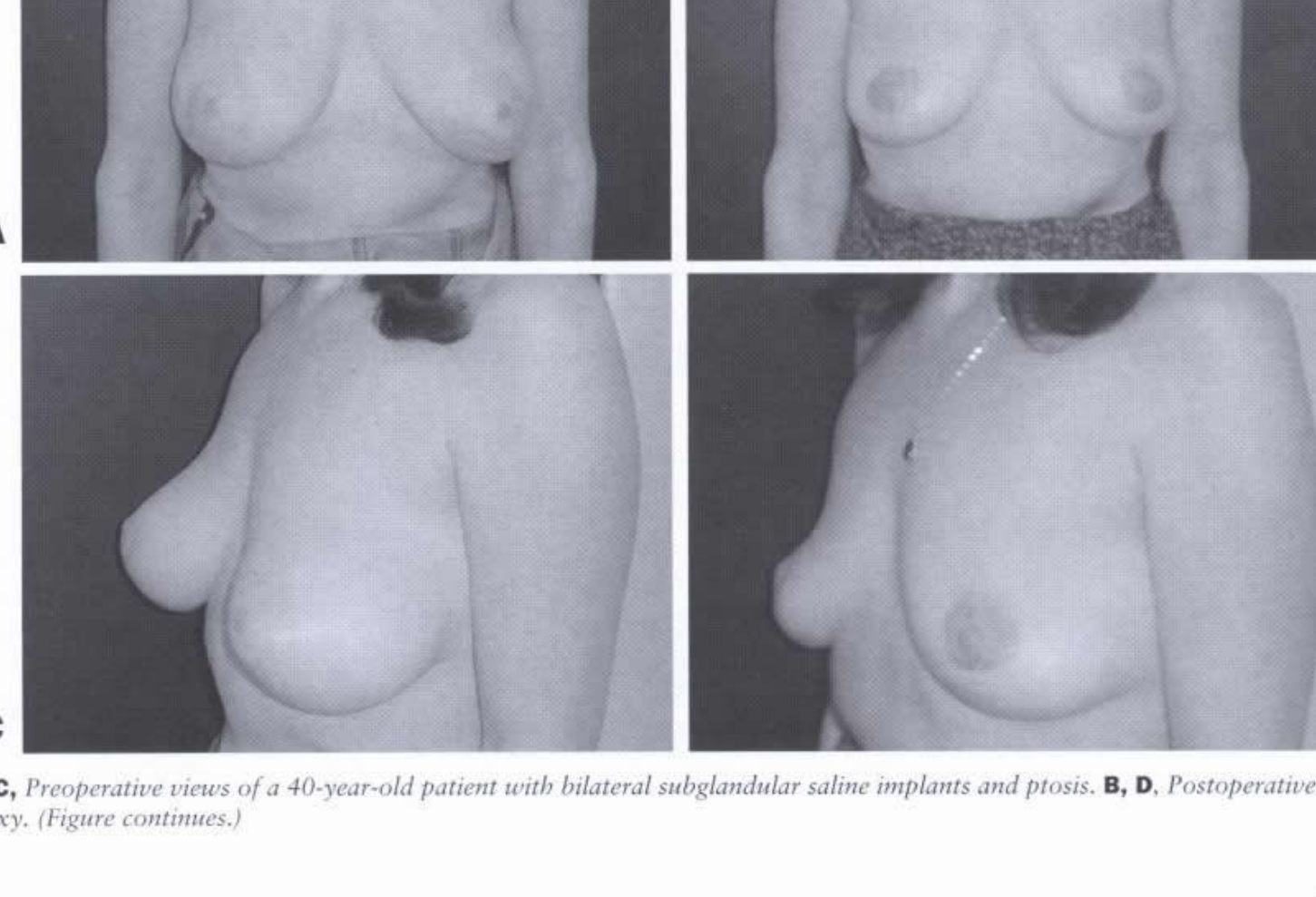


Figure 2. A, C, Preoperative views of a 40-year-old patient with bilateral subglandular saline implants and ptosis. B, D, Postoperative views 3 months after mastopexy. (Figure continues.)

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Figure 3—cont'd. E, Excision of skin. F, Raising of areolar flap. G, Placement of purse-string suture. H, Tying of purse-string suture. I, Placement of areolar flap on advanced dermal flap. J, Tension-free closure.

midway between the nipple pedicle and the outer incision, and the dermal edge is elevated (Figure 1, D). At this stage, the mastopexy, reduction, or augmentation is performed. A suction drain is inserted. Closure is performed by placing a nonabsorbable purse-string suture along the dermal edge. The purse-string suture is approximated up to the nipple pedicle (Figure 1, E). A second purse-string suture is then woven into the dermal flap. The elevated areolar flap is repositioned over the advanced dermal flap and closed tension-free with 5-0 fast-absorbing catgut (Figure 1, F). A supportive paper tape dressing is applied.

Results

A total of 34 surgeries were performed over a 19-month period. Although follow-up is relatively short, initial results are encouraging. Scarring at the areolar edge has been much less noticeable, and nipple-areolar projection results in a more natural-appearing breast when compared with the effects of conventional doughnut mastopexy procedures (Figure 3). The increase in areola diameter after surgery has also been much less than occurs when using such procedures (Figures 4 and 5). There was no loss of nipple sensation, and no total loss of the nipple-areolar complex occurred. In 2 patients,

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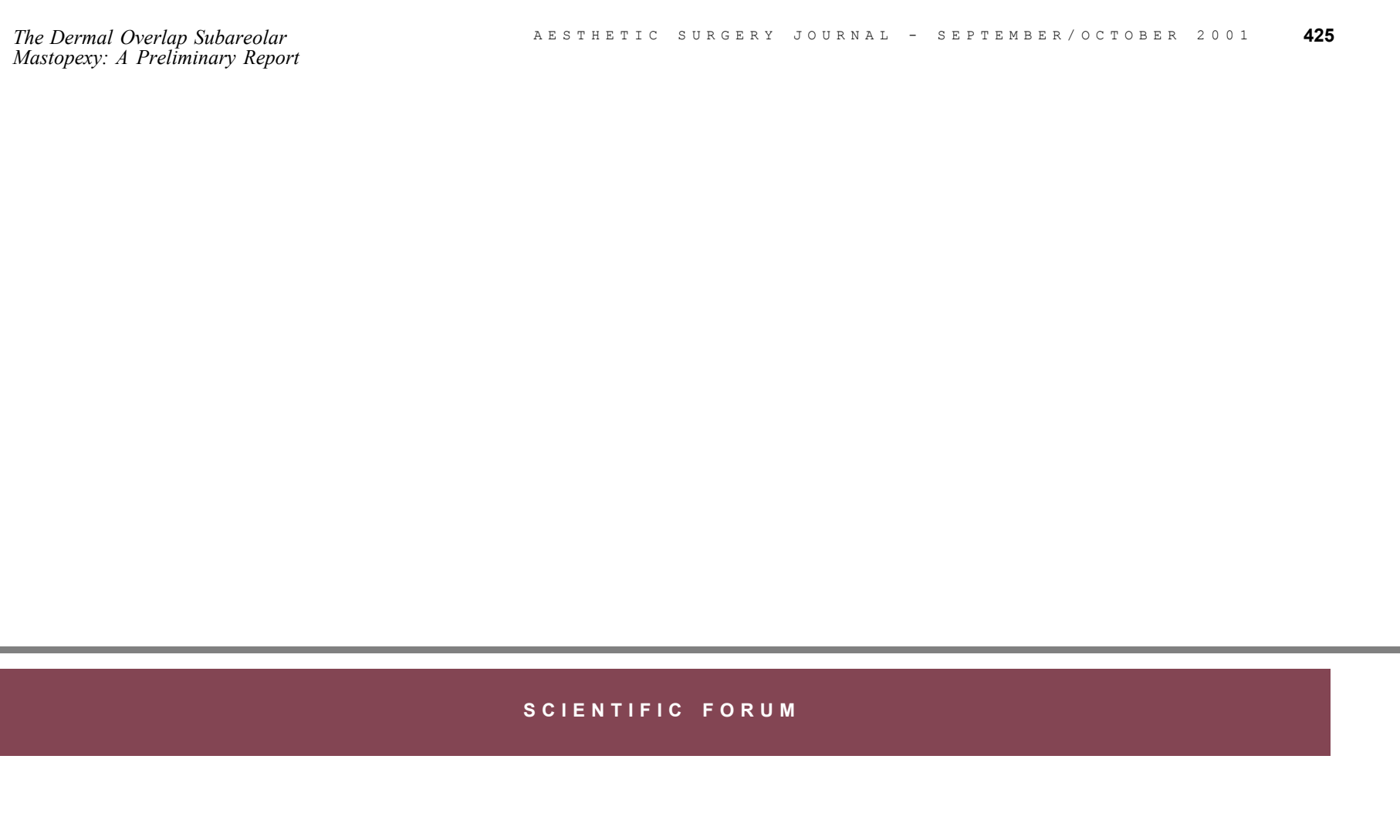


Figure 4. A, B, Preoperative views of a 23-year-old patient with ptosis. C, D, Early postoperative result about 2 weeks after mastopexy and breast augmentation with a Spectrum implant. Notice the lack of tension at the areolar edge. E, F, Result 4 months after surgery following final volume adjustment. G, Close-up view of areolar scar.

some areolar-edge necrosis occurred; in both, healing proceeded without obvious sequelae. One patient required reoperation because of insufficient elevation.

Discussion

Many different techniques of circumareolar mastopexy/reduction have been described.¹⁻⁴ The original doughnut mastopexy involves removal of a rim of skin around the areola. Because reduction of the resulting tension is not possible, the size of the areola invariably increases. Benelli⁵ describes the round block technique in which a nonabsorbable purse-string suture helps reduce stretching. In a more recent report, Goes⁶ describes a technique that uses mesh to preserve dermis peripheral to the areola to facilitate adherence of the breast flap. The skin is then closed with a purse-string suture over the preserved dermis.

The dermal overlap technique preserves and advances the dermis attached to the breast flap, rather than the areolar edge, which is then advanced beneath the elevated areola. Thus, tension is placed on the breast flap rather than on the areola. The areola is allowed to heal tension-free on the advanced dermal bed.

The areola can be elevated as described because it is essentially a myocutaneous flap that receives its blood supply from the nipple pedicle. The blood supply from the nipple is maintained by the erector muscle layer within the areola. The technique has been used in various procedures, including mastopexy, breast reduction, tubular breast correction, augmentation mastopexy, and mastopexy after implant removal. ■

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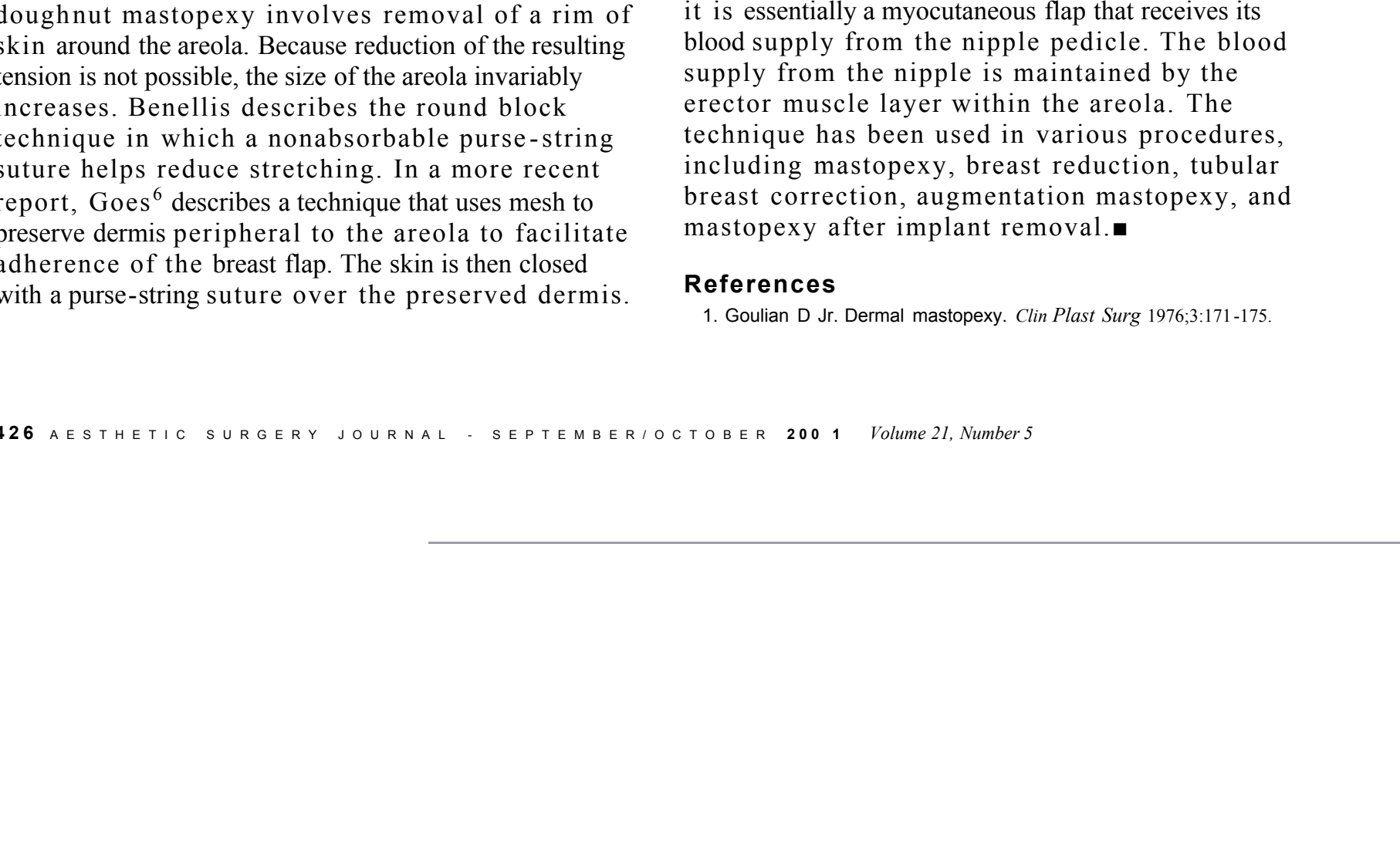


Figure 5. A, C, Preoperative views of a 42-year-old patient with bilateral ptosis. B, D, Postoperative view 4 months after bilateral augmentation with submuscular implants and bilateral mastopexy.

- Becker H, Storm van Leeuwen JB. The correction of breast ptosis with the expander mammary prosthesis. *Ann Plast Surg* 1990;489-497.
- Felicia Y. Periareolar reduction mammoplasty. *Plast Reconstr Surg* 1991; 789-798.
- Benelli L. A new periareolar mammoplasty: the "round block" technique. *Aesthetic Plast Surg* 1990;14:93-100.
- Goes JC. Periareolar reduction mammoplasty: double skin technique with application of polypropylene or mesh complications. *Plast Reconstr Surg* 1980;65:34-38.

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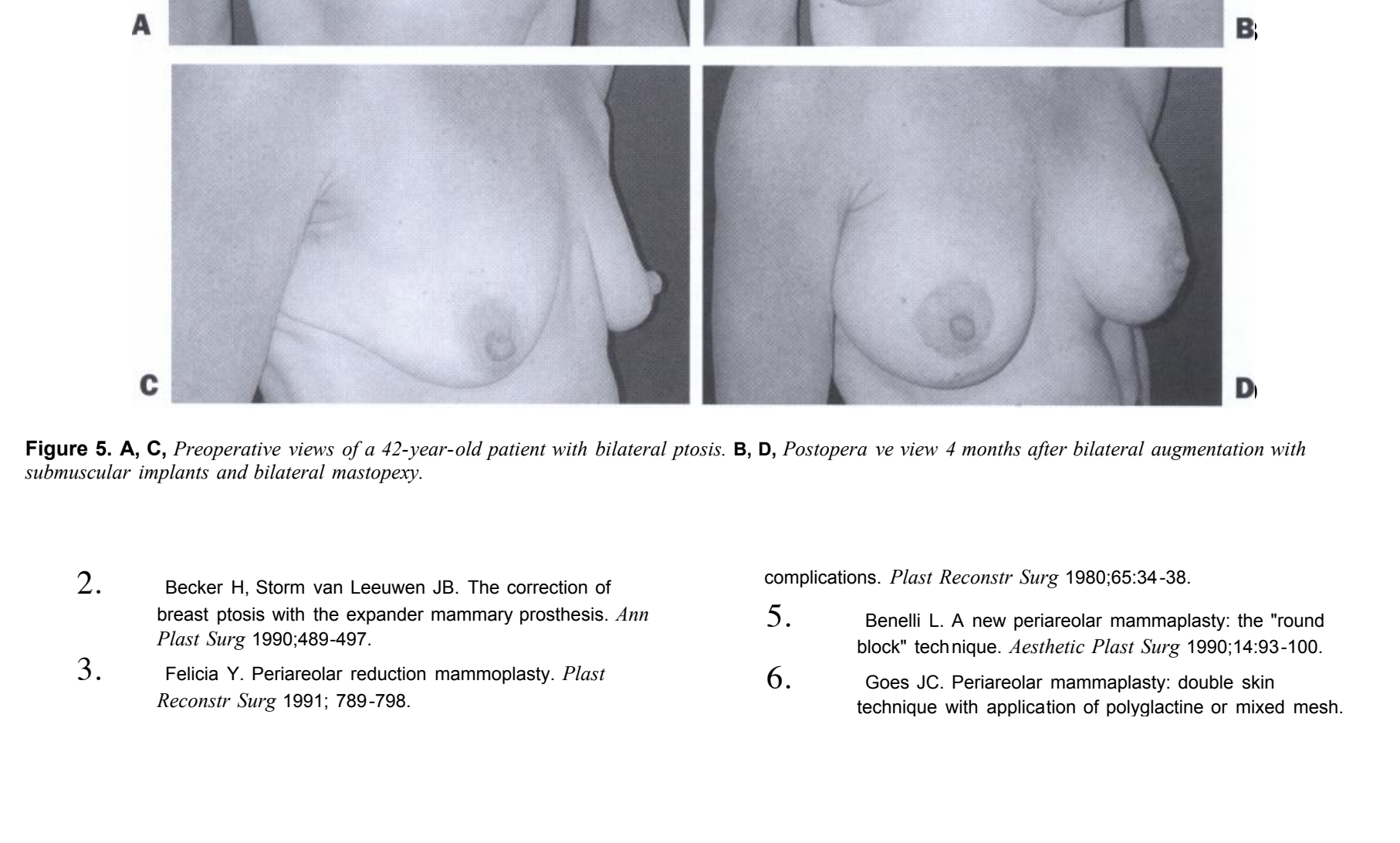


Figure 6. A, B, Preoperative view of a patient with breast asymmetry. C, D, Postoperative view 6 months after bilateral breast augmentation and mastopexy of the left breast.



Figure 7. A, C, Preoperative views of a 42-year-old patient with bilateral ptosis. B, D, Postoperative view 4 months after bilateral augmentation with submuscular implants and bilateral mastopexy.

- Becker H, Storm van Leeuwen JB. The correction of breast ptosis with the expander mammary prosthesis. *Ann Plast Surg* 1990;489-497.
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Editorial

Remembering September 11

By early afternoon on September 11, New York was a different city than it had been just hours before, and lower Manhattan was a different world. A thick cloud of smoke from the devastation at the World Trade Center filled the sky and could be seen from almost every corner of the city. Sidewalks were filled with stunned throngs of people who had been directed to walk north. The shrill sirens of fire trucks and ambulances could be heard blaring as they raced in the opposite direction. Lines formed around hospitals and other facilities where blood donations were being collected, and rescue volunteers assembled in front of armories where armed guards in full combat gear were stationed.

For me, the day had started out like most others. I had planned on a full schedule of elective surgery in the morning, new patients and follow-ups to see in the office in the afternoon. Instead, I was on my way to a large hospital in the vicinity of the devastation, as were my colleagues from around the city, many with their anesthesiologists in tow.

Upon entering the physician lounge where we were asked to register, I saw many familiar faces—plastic surgeons in the community whom I seldom run into except at plastic surgery educational meetings. Today we had a much different mission. Instead of comparing notes on our techniques for face lifts, we had gathered here to offer our special expertise in multiple traumas, burns, and lacerations. All of us had left the quiet security of our well-organized offices and operating rooms without hesitation, trading order for chaos, predictability for uncertainty.

At the ambulance receiving entrance to the emergency department, there were hundreds of other volunteers—a virtual sea of white coats and surgical greens as physician assistants, nurses, medical students, and residents from all specialties, along with orderlies and hospital administrators, stood by anxiously waiting to be called into action. Only after many hours on stand-by was it finally clear to all of us, based on news reports and returning emergency rescue teams, that there was nothing for most of the medical volunteers to do.

Only infrequently did a stretcher with a new casualty make its way through the emergency department entrance. It was quickly surrounded by legions of medical personnel eager to administer life-saving treatment. These patients were mostly rescue team members who ran into the disaster while everyone else was trying to run away from it. They were injured as the buildings collapsed.



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