The Inframammary Approach to Breast Augmentation

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The inframammary approach to breast augmentation is the standard to which all others must be compared.

Patients and surgeons frequently reduce the discussion of incisions to a debate over the best location of the scar. Yet the final scar is the least profound difference between the various incisions. Each scar location requires exposure of and risk to very different anatomy, provides the surgeon with different levels of visualization of the critical portions of the operation, causes differing degrees of swelling and recovery, and has effects on the final outcome that will often be more significant to the patient than her scar.

As an example, the McBurney and Rockey-Davis incisions for appendectomy vary in the position of the incision; however, the operations are otherwise the same, encountering identical anatomy, risks, and benefits once beneath the skin. In contrast, breast augmentations through different incisions are quite different operations in very important ways.

Dwelling on the scar is understandable because the other issues are not immediately visualized or even understood by the patient. A paucity of well-controlled studies documenting these differences allows surgeons the freedom to suggest to patients the incision with which they most feel comfortable or to perform any incision the patient requests without pause for thoughtful discussion.

For a patient considering a breast augmentation who has no previous scar on her breasts and is reluctant or ignorant about the totality of breast augmentation risks, focusing on the scar is understandable. But to do so ultimately is puerile, and the surgeon educating the patient should inform her of other issues that need to be considered.

For the plastic surgeon, it is often easier to agree to a patient's request for a particular incision than to educate her to consider another. Experience and familiarity with an accepted technique creates little impetus for change. For many surgeons, the choice of incision occupies an important marketing niche for their practice, allowing them to offer incisions they can tout as "hidden around the areola," "no scar on the breast," or "hidden in the crease underneath the breast."

I must emphasize that all three incisions—transaxillary, inframammary, and periareolar—are all obviously fully acceptable. But patients should be aware and surgeons should remind themselves that there are many characteristics that distinguish the approaches other than the scar, and the selection of the incision should include consideration of those issues in addition to the location of the scar.

THE SCAR

I believe that scar location should be a low-priority issue when selecting an incision. But because it remains the focal point for most patients and surgeons, it warrants discussion first. Patients obviously want the most inconspicuous incision, and plastic surgeons want to deliver it to them.

But no matter which approach a surgeon prefers, that surgeon is capable of "selling" that incision to most patients. The transaxillary surgeon would tell patients that the armpit incision is off of the breast and heals so well that it is almost

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impossible to find. The periareolar surgeon would argue that placing the skin around a natural anatomic border renders it the most inconspicuous and that the thin skin of that area consistently yields thin and nearly invisible scars. The inframammary surgeon would argue that an inframammary fold scar is hidden within the crease under the breast, less noticeable than a mark from an underwire bra, and cannot be seen unless the arm is raised over the head with an observer beneath the breast. And the periumbilical surgeon would argue that a scar within the belly button is the epitome of scarless breast surgery because many women have had laparoscopic procedures through the belly button and those scars are barely noticeable.

Which of these arguments is the most correct? If any one of the scars were commonly unacceptable, then that technique would have long since been abandoned. If any one of them had invisible scars without other trade-offs, then everyone would have switched to it by now.

What can we say about the scars? No study has compared patient satisfaction with scars in randomized trials. I have seen very poor scars from all three methods. These problematic scars have been a result of poor execution, patient biology, or both.

Transaxillary incisions must be made at the apex of the axilla, within or parallel to a skin crease. It should not be diagonal, nor should it cross the latissimus or the pectoralis major muscles. When these errors are made, the incision can be unsightly, but the technique should not be condemned due to misexecution.

Periareolar incisions can be excessively visible if they are within the areola, which sometimes yields a hypopigmented scar within a sea of dark areola (though this is easily repairable with cosmetic tattooing). A periareolar incision that is made out beyond the border of the areola can be conspicuous.

An inframammary incision must be made precisely at the inframammary fold. If the location of the fold is going to be preserved, then the incision should be made exactly within the pre-existing inframammary fold. But if the fold is going to be lowered, its precise location should be determined and the incision made exactly at that location. For years, surgeons were improperly taught to make the incision above the inframammary fold so that the scar would not be visible if a woman were wearing a small bikini or bra and raised her hands above her head. But an incision within the crease typically heals so well, that even when the hands are raised and the bra rides up, it is scarcely visible. When the incision is made above the fold, however, the pressure of the implant on the lower pole of the breast frequently causes the scar to widen and hypertrophy. It is probably because of the errant advice to place the scar above the fold that this approach developed a reputation among some for giving a suboptimal scar. Placement of the scar above the fold should similarly be viewed as a suboptimal execution of the approach, and the incision should not be condemned as a result of it.

Whichever incision is used, surgeons must remind themselves that a scar can be no better than the condition of the skin edges that are approximated. Beveling, scratching through the dermis with multiple knife passes, cauterizing too close to the skin edges, not trimming the skin edges if they were abraded with retractors, putting too much dissolvable suture superficially, closing with uneven sutures, applying too much tension in the sutures, and leaving sutures in too long are all avoidable causes of unsightly scars.

More common and profound than suboptimal execution of the surgery are poorly understood issues of patient biology and wound healing. These issues can yield scars that are thick, raised, painful, and pigmented. Why a surgeon who performs a procedure the same way with excellent scars suddenly gets a patient who has a bad scar is a vexing problem.

Although uncommon in the axilla, when such scars occur, the patient is stuck with a scar that is visible in a bathing suit and in any shirt or dress that is sleeveless. Instead of what could likely have been a bad scar around the areola or in the inframammary fold that could have been covered by clothing and only exposed to intimate friends, she now has a problematic scar that cannot be hidden. Again, although such scars can occur in the axilla, it appears to be a relatively privileged place in terms of scars, and it is fortunate that such scars are uncommon. But the unfortunate few with bad axillary scars are subjected to embarrassment and difficulty in finding clothing to cover up this telltale sign of a breast augmentation.

Hypertrophic, hyperpigmented, and widened scars are much more common with the periareolar than either the transaxillary or inframmary approaches. The reasons are unclear, but I have seen many such patients who had their surgery performed by surgeons known for their expertise with the periareolar approach and personally known by me to perform technically excellent surgery (**Fig. 1**). Although the axilla is a favored area in darker, oilier, and more pigmented patients, the same is undoubtedly not the case with the areola. I have seen only a handful of unacceptable axilla and inframammary scars, but I have seen countless bad areola scars in which the issue was