change one of these three parts, they want to change a specific part of themselves.

Many patients feel most appropriate psychologically and live in a state of more or less deep malaise and are trying to solve or at least lessen the requirement for surgery and purchase in this way also therapeutic value. Of course, these arguments are not valid for all patients because the considerations vary from person to person and are difficult to answer in absolute terms. In any case, the therapeutic indication for a correction considered "aesthetic," and also the legality of the procedure, always start from the idea of improving the physical and mental well-being of the patient and to accept this free will of the people that want some "change" in their appearance.

The representation and the objectification of the body have become almost obsessive, and prominent parts of society today have changed their perception and increased their attention toward plastic surgery, which is identified as the most powerful tool with which to correct dysmorphism and alterations in bodily perception, improve irregularities, and possibly intervene in exaggerated attitudes (such as hypercorrection of aging), making it possible, in the collective, to attempt to fulfill the aspirations of Narcissus or even the dream of eternal youth. It is not so uncommon, then, that the patient desires a correspondence between the body "exterior" and the image of the body "interior," which in his or her mind is young. The problem occurs, however, with pathologic traits frankly, with the awareness that this process of "change" and natural aging must be accepted.

It is true that these considerations can be applied to all areas of the body and it is equally obvious that the face is something more than an anatomical area, because the face characterizes the individual and profoundly affects social relations. It is therefore common that a change is requested mainly as a result of the progressive changes caused by aging, but are these discomforts and proper framing issues exclusively aesthetic?

All this must be objectified and evaluated, and the FACE-Q is a good way to obtain some practical information, like other questionnaires used in other parts of the body.[2] We already use the BREAST-Q to objectify the perception that our patients have of their body before and after surgery. The FACE-Q should therefore be applied both in aesthetic medicine and in cosmetic surgery.[3]

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DISCLOSURE

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Ideal Breast Shape: Women Prefer Convexity and Upper Pole Fullness

Sir:

Mallucci and Branford[1] promote four "critical ideals of breast beauty."[2] The first consideration in discussing an ideal breast is, whose definition of ideal should we use? So often, it has been the surgeon's opinion. However, we know that the patient's opinion is what matters most in terms of surgical success.[3,4]

The slope of the upper pole is a subjective assessment made by the authors. This determination may be made objectively by dividing the upper pole projection by the breast projection.[5] This ratio is called breast convexity.[5] Oblique views are prone to slight differences in rotation, making them difficult to standardize. Frontal and lateral images can be matched more easily and used to quantitate surgical changes (Fig. 1).[5]

The authors prefer a linear or slightly concave upper pole.[1,2] If concave upper poles were desirable, corsets and bras would not have been invented. One of the few studies to ask women for their opinion revealed that they (unlike their surgeons) prefer convex upper poles.[6] Upper pole concavity may be the natural condition, but it is not the preferred one.

The authors advocate a 45:55 ratio (0.82) using the upper pole takeoff, nipple level, and inframammary crease as landmarks.[1,2] One practical limitation of this ratio is the fact that the upper breast margin is not well defined. There is a high degree of subjectivity in deciding where the chest ends and the breast starts. Different observers are likely to assign different ratios. The inframammary crease level is better defined than the upper pole takeoff, but it is still

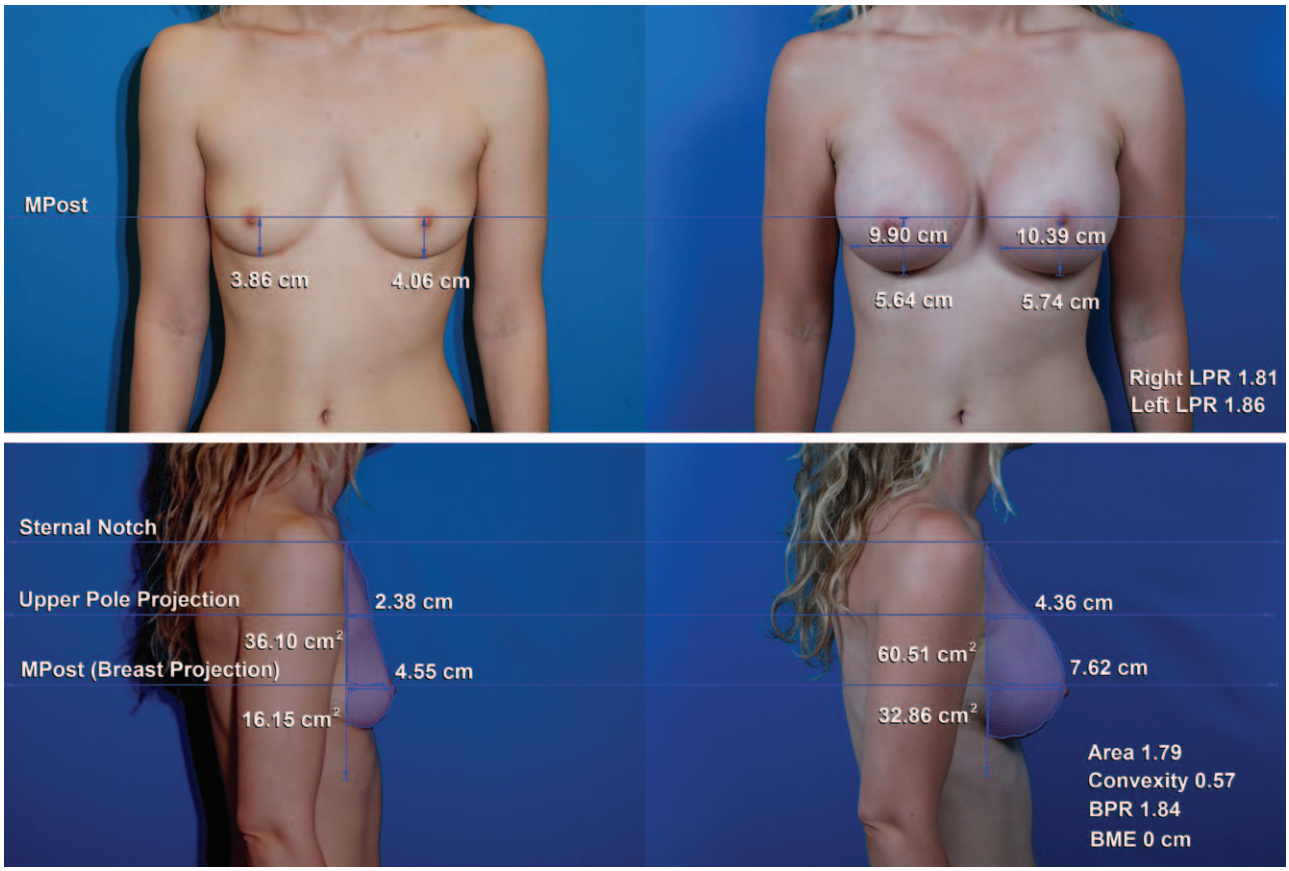

Fig. 1. This 30-year-old nulliparous woman is shown before (*left*) and 3 months after (*right*) a submuscular breast augmentation using smooth, round, Moderate Plus profile saline implants (Mentor Corp., Santa Barbara, Calif.) inflated to 450 cc. Upper and lower pole breast areas (*shaded*) are measured above and below the plane of maximum breast projection. Lower pole ratios less than 2.0 indicate a nonboxy shape. The total breast area is increased 79 percent. After surgery, the upper pole profile is convex. The postoperative breast parenchymal ratio is 1.84. Photographs are matched for size and orientation using the Mirror 7.1.1 imaging software (Canfield Scientific, Fairfield, N.J.). *MPost*, maximum postoperative breast projection; *LPR*, lower pole ratio; *BPR*, breast parenchymal ratio; *BME*, breast mound elevation.

an unreliable surgical landmark because this level changes after surgery, lowering after a breast augmentation (Fig. 1) and rising after a vertical mastopexy.[7] Also, the inframammary fold tends to be obscured in patients with ptosis. The lower pole level (the lowest point on the breast)[5] is a more useful landmark.

Importantly, the nipple may not align with the level of maximum breast projection, making it an unreliable marker for differentiating the upper and lower breast poles. The level of maximum postoperative breast projection serves as a useful reference plane for comparing upper and lower pole contributions (Fig. 1).[5] The breast parenchymal ratio and nipple position are best considered separately.[5]

A vertical linear measurement[1,2] does not reliably measure parenchymal contributions because the horizontal component is not measured. Two-dimensional measurements more accurately quantitate the parenchymal proportions.[5] Two-dimensional analysis[5] provides an ideal balance between one-dimensional analysis,[1,2] which is too simple, and three-dimensional analysis, which is overly complicated.[5]

The authors' panels of four images[1] feature a variety of nipple positions. To properly compare breast shapes, the nipple position should be kept constant, at the apex of the breast. It is not surprising that few respondents chose the images with displaced nipples. This confounder undermines the authors' conclusions. This is unfortunate because the authors expended a great deal of effort having the panels reviewed by different demographic groups,[1] and the results would have been interesting if this confounder had been eliminated and the breast parenchymal ratio isolated as the variable of interest.

There is a consensus that the nipple should sit at the point of maximum breast projection, with a neutral inclination.[5] The authors promote an upward 20-degree tilt.[1,2] A skyward tilt may sometimes occur naturally, but it may also be a telltale sign of implants that are displaced downward, causing bottoming out, or an unintended consequence of a Wise pattern

breast reduction (pseudoptosis).[8] With gradual inferior glandular displacement, this unnatural appearance is likely to become worse with time.

What are the practical implications of such considerations? Physics and gravity dictate that the lower pole will assume a convex shape.[5] Therefore, maintenance of lower pole convexity[2] is unnecessary. Adequate resection of lower pole breast tissue during a mammaplasty (mastopexy, augmentation/mastopexy, or reduction) avoids a persistent lower pole bulge.[9] When treating women with breast ptosis, the surgeon's objective is to restore upper pole fullness and tighten the lower poles.[9,10] If a patient lifts her breasts with the cups of her hands and says, "this is what I want," she is likely to be best served with an augmentation/mastopexy.[10] The preferred contour of the lower pole immediately after a properly performed vertical mammaplasty should be almost linear on a lateral view, not convex. It will always round out. Nipple overelevation should be avoided.[8–10]

Measurements reveal that after breast augmentation, the mean breast parenchymal ratio measures 1.61 on the right and 1.72 on the left.[10] After augmentation/mastopexy, these ratios measure 1.68 and 1.78, respectively.[10] Such ratios are approximately double the authors' recommendation; however, these women consistently report high levels of satisfaction and improved quality of life.[3,4] Notably, the mean *preoperative* breast parenchymal ratios for women with ptosis undergoing mastopexies are 0.76 and 0.89,[10] very similar to the authors' preferred ratio of 0.82.

In summary, the plastic surgeon is best advised to aim for convex upper poles, tight lower poles, and a breast parenchymal ratio that favors upper pole fullness and convexity. These goals are the opposite of those advocated by the authors.[1,2] Few patients complain of excessive perkiness more than a few months after a mammaplasty.

The authors promote shaped implants.[1] Interestingly, at a recent meeting,[11] plastic surgeons in the audience were unable to discern from photographs which patients had shaped implants and which did not. Ironically, the ratio of correct to incorrect responses was 45:55. Shaped implants preferentially increase lower pole volume, accommodating the surgeon's preference, but not the patient's.[6] Whether shaped implants offer advantages in cosmetic breast augmentation awaits evaluation by patients.

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Reply: Population Analysis of the Perfect Breast: A Morphometric Analysis

Sir:

We welcome Dr. Swanson's comments regarding our recent publication. We have some reservations, however, with the title of his correspondence and the evidence presented within.

His communication is entitled "Ideal Breast Shape: Women Prefer Convexity and Upper Pole Fullness." This statement chooses to completely ignore the findings of the population study published in the peer-reviewed article in this *Journal*.[1] It is a statement based on personal opinion backed by no evidence. It is stated in his correspondence that "Mallucci and Branford promote four critical ideals of breast beauty" and that "The authors prefer a linear or slightly concave upper pole."

The whole point of the population study was to ask a highly mixed population for *their* opinion—the results are not an expression of our (the authors') opinions, they are those of the population questioned. The editor of this *Journal* has produced a