Limitations of the Horizontal (No Vertical Scar) Breast Reduction

Eric Swanson, MD

In a previous article, White et al\(^1\) concluded that the horizontal breast reduction technique yields superior breast scars. The authors claimed that theirs was the first prospective study to evaluate breast reduction scars. However, other published studies, both prospective and retrospective, have compared vertical and inverted-T scars, finding that patients prefer a vertical scar.\(^2\)\(^-\)\(^5\) One study, which the authors mischaracterize as retrospective, was in fact prospective and randomized.\(^2\) Patients in the authors’ study assessed 3 photographs and line drawings,\(^1\) differing from previous studies in that the patients did not rate their own scars. Accordingly, this study is a survey (subjects are interviewed once), not a prospective study per se, and is therefore not comparable to studies that have assessed actual patient experiences.

By showing only 3 photographs to patients, 1 of each technique (horizontal, vertical, and inverted-T), the investigators invite selection bias. A series of 6 consecutive cases of each method with similar resection weights, for example, would have allowed a more reliable comparison without overwhelming the raters. The examples in the original article also show different periareolar scars, a significant confounder. The horizontal technique favored by the authors features the most circular—and therefore most aesthetic—areolae. Oblique, elongated areola shapes compromise the other 2 examples. The authors’ reasons for excluding patients whose interest was primarily aesthetic rather than functional are unclear.

Another problem is the presentation of only frontal images. The advantages of the vertical technique cannot be fully appreciated on this view. Lateral and oblique photographs are needed to assess the horizontal scar, which remains hidden on the frontal view, particularly the lateral component extending beyond the inframammary crease into the axilla, where it can be visible. This scar is often wide, thick, and slow to mature.\(^6\) An important advantage of the vertical technique is improved breast projection and upper pole projection, with less constriction of the lower pole—advantages most visible in lateral photographs.\(^7\)

The authors conceded that their study did not assess differences in breast shape. Although the horizontal technique avoids a vertical scar, it does so at the cost of producing a wide, boxy shape (Figure 1). The lower pole ratios (lower pole width/lower pole length) are greater than those of other techniques, particularly the vertical mammoplasty (Figure 2).\(^7\) This difference is not represented in the line drawings given to patients, which show ideal semicircular outlines of the lower poles for all 3 techniques.\(^1\)

Whether an ethical dilemma is avoided by keeping the survey results unknown to the surgeon is open to question: the surgeon is ignorant of the patient’s preference rather than indifferent to it. This ethical issue may be avoided by taking into account the patient’s opinion in selecting a procedure or by surveying a group of women.

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who are not about to have a breast reduction. Regardless, the postoperative assessments of actual surgical patients are preferred. The vertical procedure offers advantages in both shape and scarring. If prospective patients are given the benefit of full breast visualization, they are unlikely to choose the horizontal technique.

**Disclosures**

The author declares no potential conflicts of interest with respect to the research, authorship, and publication of this article.

**REFERENCES**


**Figure 2.** Measurements of lower pole ratios in the authors’ original Figure 3, which shows an example of a vertical breast reduction in a 32-year-old woman, 6 months postoperatively. The mean lower pole ratio is 1.82, close to the semicircular ideal (1.73). A 21-cm nipple-to-nipple distance is used for calibration.