Advancements in abdominoplasty surgical techniques have been few and slow over the past few decades. Some of the more notable improvements have been Dr. Lockwood’s high lateral tension technique and Drs. Pollock and Pollock’s progressive tension suture technique. In my experience, the latter of these is the most noteworthy and has proven to be the most significant advancement in abdominoplasty technique. Progressive tension suturing offers the advantages of decreased seroma formation and reduction of the transverse incision tension with subsequent improvement in scarring. The need for drains is also eliminated, which improves postoperative care, decreases cost, and increases patient comfort.

However, even with the advantages of the progressive tension suture technique, there has been concern among surgeons regarding the increased surgical time it requires. Reports have been published by Rosen and Warner and Gutowski, who have advocated use of continuous running Quill sutures (Quill SRS, Angiotech Pharmaceuticals, Inc., Vancouver, Canada) to reduce operative time; both of these reports presented nice results, but the elevated cost of the Quill suture, especially when multiple sutures are required, is not insignificant. In the first description of the original progressive tension suture technique, the Pollocks recommended interrupted 2-0 Vicryl (Vicryl, Ethicon, Somerville, New Jersey), and there is no readily-apparent reason why this type of suture could not be placed as a continuous running suture, especially for midline advancement. Placement of a Vicryl running suture would give the advantage of decreased surgical time because fewer knots would be required, and the cost of the Vicryl material is significantly less than the Quill suture. However, the potential disadvantage—as with any running suture—is that in the event of suture failure, the repair performed with that suture is at risk.

In the standard progressive tension technique, the area that requires the greatest number of sutures is the superior abdominal midline. For a modification, I propose a continuous running technique that begins at the level of the xiphoid in the midline with 2-0 Vicryl; the suture is placed through the rectus fascia; a knot is tied; and then the suture continues into the abdominal flap fatty layer, where the surgeon attempts to integrate Scarpa fascia into the needle bite. The suture is then advanced 1 to 2 cm inferior, and another bite is taken of the rectus fascia. Just as described by Pollock and Pollock, the abdominal flap is then advanced inferiorly, and a bite is taken of the abdominal flap in the advanced position. The suture is pulled tight, and this process is continued, with a locking pass of the suture being placed with every few advancements to help maintain the progressive tension. The suture is then tied immediately superior to the umbilicus. The inferior abdominal midline can also be closed in this running fashion, starting at the inferior aspect of the umbilicus and finishing at the pubis, especially if the patient is fairly long-waisted or a few interrupted sutures can be placed to advance the flap. On the lateral aspects of the abdomen, either interrupted sutures or another continuous running Vicryl could be placed (Figures 1 and 2).

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Even when placed only at the abdominal midline, running progressive tension sutures provide a reduction in surgical time, especially for a single surgeon with no suturing assistance. Personally speaking, I have noted time savings of 15 minutes with the initial two patients in whom I used this modified progressive tension suture method (as compared to the interrupted technique). This is by no means a large case study, and the number has no statistical significance, but it was clear that the operation was faster and I was able to maintain the advantages of flap advancement as provided by the original progressive tension suture technique. The procedure is identical in every way to the Pollocks’ original description, with the exception of the Vicryl being placed in a running rather than interrupted fashion. With two surgeons operating, there may not be significant time savings or advantage, but because of the tight space, it can be difficult for one surgeon to tie a knot while the other surgeon places the next stitch, so even in this situation, operative time may be reduced.

With any operation, if the surgery can be completed more quickly without compromising safety or surgical outcome (or possibly even improving the outcome), reducing anesthesia time for the patient is always a desirable goal.

**Disclosures**

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**REFERENCES**