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LETTER TO THE EDITOR

Response to the Letter to the Editor: Surgical Delay of Thoracodorsal Artery Perforator Flaps for Bilateral Autologous Breast Reconstruction

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Sir,

We thank you for your interest in our report, and for sharing your experience with the muscle-sparing latissimus dorsi (MSLD) flap.[1,2] We appreciate the insight you provide regarding the collateral flow from the transverse branch of the thoracodorsal artery (TDA), especially in obese patients. There are many similarities between the MSLD flap and our techniques with the surgically delayed thoracodorsal artery perforator (TDAP) flap. We use perforator(s) off the descending branch in nearly all cases. Therefore, in creating our surgically delayed TDAP flaps, preservation of the TDA transverse branch in situ is typical, as it is in the creation of MSLD flaps.[3] We agree that losing the transverse branch may be unnecessary in maintaining adequate flap perfusion in the setting of the delay phenomenon.

When utilizing the delay phenomenon in TDAP flaps, we first look for a large direct cutaneous thoracodorsal perforator that courses just anterior to the latissimus dorsi muscle that we expect to encounter at least 30% of the time.[4] One dominate perforator is preferred as we dissect through muscle with no muscle loss. These perforators were often identified preoperatively using color Doppler ultrasound to assess TDAP caliber, peak systolic flow, and anatomical course. However, a handheld Doppler may also confirm perforator locations preoperatively.

We describe the delay phenomenon in TDAP flaps for total autologous breast reconstruction within a case series that is currently in press.[5] In this series, we found one to two perforators from the TDA descending branch, or a single large cutaneous branch from the TDA, were sufficient for flap perfusion when combined with the delay phenomenon. We have been able to achieve average flap lengths exceeding 30 cm off a single pedicle, which is longer than what is generally described in the literature.[6] This was evidenced by colored Doppler ultrasound, intraoperative spy fluorescent imaging, and clinical outcomes.

We have also had success in the delayed TDAP flap by maintaining dorsal intercostal artery perforators for anastomosis to the internal mammary vessels, particularly for venous drainage, although this was often not necessary. We anticipate that further research will continue to prove the delay phenomenon as a useful method in performing total autologous breast reconstruction with nonconventional flaps such as the TDAP and MSLD flaps.

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DISCLOSURE

The authors have no financial interest to declare in relation to the content of this article.

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