Fig. 1. (*Above*) The original defect demonstrating lack of redundant surrounding tissue including paraspinous muscles. The patient also had exposed hardware and dura covered with sealant. (*Below*) Immediately postoperative view with split-thickness skin grafts in place. The lower dressing is for a pre-existing ischial pressure wound.

wound after neoplasm resection, complicated by recurrent wound dehiscence and infection in the setting of prior irradiation. Serial débridement was performed, and ultimately exposed hardware and dura mater were present at the wound base (Fig. 1, *above*). Due to the extent of the defect, in addition to the poor quality and quantity of the remnant surrounding soft tissue, the decision was then made to proceed with microsurgical reconstruction with creation of an arteriovenous loop for recipient vessels.

The left great saphenous vein was harvested with division at its most distal aspect, and end-to-side arteriovenous anastomosis was performed to the more proximal femoral artery. This arteriovenous loop was allowed to mature in situ for 3 days. After this time, the loop was advanced into the defect through a subcutaneous tunnel at the right flank. A free latissimus muscle flap was raised and microvascular anastomosis was performed to the femoral vessel arteriovenous loop. The remaining length discrepancy between the arteriovenous loop and the wound defect was made up for by the length of the thoracodorsal vessels. The latissimus muscle was inset with split-thickness skin graft coverage, and the flap and arteriovenous loop donor sites were closed primarily (Fig. 1, *below*).

We commend the authors for their outstanding article describing options for these challenging cases. The described technique may be considered as an additional alternative for reconstruction of complex lumbosacral defects.

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Reply: Free Flap Reconstruction of Posterior Trunk Soft-Tissue Defects: Single-Institution Experience and Systematic Literature Review

We thank the authors for their valuable contribution to our article, "Free Flap Reconstruction of Posterior Trunk Soft-Tissue Defects: Single-Institution Experience and Systematic Literature Review."[1] In their letter, Leach et al. describe their previously published technique in which an arteriovenous loop is created from femoral artery to femoral vein with a single end-to-side

anastomosis while maintaining the continuity between the great saphenous vein and femoral vein.[2] They also present their recent case with a large lumbosacral defect successfully reconstructed with a latissimus dorsi muscle flap utilizing their arteriovenous technique. Provided the correct geometry and defect location, we strongly support and fully endorse their saphenous vein arteriovenous loop transposition procedure.

As emphasized in our recipient vessel algorithm diagram, superficial femoral vessels are indeed a valid option for lumbosacral and posterior chest wall defects when combined with a vein graft. In our series, we used the superficial femoral veins as recipient vessels in three of our cases for defects located in the lumbosacral region ($n = 2$) and posterior chest wall region ($n = 1$). Two of those reconstructions went uneventfully and one case resulted in partial flap loss. Reconstruction of the lumbosacral region with microsurgical techniques is associated with higher complication rates[3] because of the defect's dependent location and lack of easily accessible recipient vessels. Although necessary, vein grafts or arteriovenous loops are thought to contribute to an increased complication risk for lumbosacral free flaps.

Few et al.[4] described mobilizing the cephalic vein and using this as a venous conduit between the external carotid artery and the axillary vein, similar to the technique described by the authors. Utilizing a long vein segment without dividing it proximally has the advantage of an uninterrupted native venous outflow with one fewer anastomosis site. Although eliminating one anastomosis does likely reduce the thrombosis risk somewhat, this arteriovenous loop method maintains the potential for compression and kinking shared by all long vascular conduits.

The authors describe a 3-day delay to allow for arteriovenous loop maturation before free flap transfer. The optimal timing of free tissue transfer after arteriovenous loop creation is still debated in the literature,[1,3,5] as we discussed in more detail in our article. One advantage of delayed reconstruction is that if the arteriovenous loop thromboses in between stages, a flap loss is avoided, albeit at the expense of an arteriovenous loop, which is not necessarily insignificant. In our series, we encountered one thrombosis in the immediate setting (one of four) and two thrombotic events (two of three) in the delayed setting. Without clear evidence-based data, the final decision on immediate versus delayed free flap transfer following arteriovenous loop creation should be based on surgeon preference, the patient's operative risk, and local wound conditions.

Microsurgical reconstruction of the posterior trunk is incredibly challenging, with the lumbosacral region capable of testing the mettle of even the most seasoned reconstructive surgeons. In the rare circumstance that a free flap is needed, vein grafts/arteriovenous loops are almost always necessary. A saphenous vein transposition to create an arteriovenous loop to the superficial femoral artery is a reliable and useful technique for this exact scenario. We appreciate the authors sharing their experience and adding to the body of knowledge associated with these rare and complex reconstructions.

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Neourethra Creation in Gender Phalloplasty: Differences in Techniques and Staging

We read with interest the article by Berli et al.[1] in which the authors provide insight on and review of urethral lengthening techniques and staging used in phalloplasty procedures. We appreciate the authors' contribution to the growing literature on phalloplasty procedures and agree that novice gender surgeons