In Reply:

To support the basis of our technique in the published article, "Reconstruction of Circulation in the Fingertip Without Vein Repair in Zone I Replantation," we herein provide studies closely related to the reconstructed vascular loop.

In zone I fingertip replantation (Tamai classification), it is difficult to find an available vein on an amputee. Chen et al[1] reported contralateral digital proper artery (DPA) anastomosis to the dorsal vein of the stump with a vein graft. All 4 digits survived. The same technique and similar results were also reported both clinically and experimentally.[2,3] These studies concluded that vascular shunting provided channels for drainage[1] and can effectively reduce the venous workload.

A DPA gives off dorsal cutaneous branches at the distal interphalangeal joint.[4–6] Ozdemir et al[7] and Cui et al[8] performed flaps for coverage of fingertip defects. The flap was harvested from the dorsal side of the finger based on the DPA branches. Their studies showed that blood flow continued through the branches to arteriovenous communication.

Indeed, ligating the larger DPA serves to reduce inflow into the fingertip. In addition, ligating and transecting vessels as described in our article can stop blood flow from the proximal part. Thus, blood flow can feasibly be transmitted through the anastomosis site into the proximal part. Moreover, the recurrent veins and the branches to periosteum, nail fold, and nail bed at the joint also serve as veins for drainage.

During the procedures, some large branches were ligated to avoid potential hemorrhage. In my experience, usually 2 to 5 ligations were performed in each case. The procedure is simpler than vessel grafting described by Chen et al,[1] in which vessel harvesting and additional vascular anastomosis were performed. Obviously, additional anastomosis is more likely to decrease revascularization and replantation success.

Zone I fingertip replantation remains a challenge. Our technique provides an alternative method for fingertip replantation when vein-to-vein anastomosis is impossible.

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