

Dual Venous Drainage to 1 Recipient Vein in the Anterolateral Thigh Flap

Shimpei Miyamoto, MD

Division of Plastic and Reconstructive Surgery
National Cancer Center Hospital
Tokyo, Japan

Sir:

The anterolateral thigh flap usually contains 2 comitant veins. The strength of the venous return flow differs between the 2 veins.¹ To ensure flap survival, anastomosis of both veins has been recommended by several authors because there is little or no communication between the 2 comitant veins.^{2,3} However, although one of the veins should be abandoned when only 1 recipient vein is available for anastomosis, this can result in partial or total flap loss. We herein present a novel method of achieving dual venous drainage to 1 recipient vein in the anterolateral thigh flap using the distal limb of the first comitant vein as a recipient for the second comitant vein.

A 32-year-old man underwent wide excision of an inguinal sarcoma; the excision included the abdominal wall and external iliac vessels. An interpositional graft of the contralateral great saphenous vein was placed between the external iliac artery and the superficial femoral artery to revascularize the lower limb. The external iliac vein was not reconstructed. The abdominal wall defect was reconstructed with a free anterolateral thigh flap that included the ilio-tibial tract. The flap contained 2 comitant veins, and no communication branch was found between them (Fig. 1). At the recipient site, the flap artery was anastomosed to the left obturator artery in an end-to-end fashion. The comitant vein of the obturator artery was not available because it had been ligated proximally during tumor resection. Therefore, we dissected the left testicular vein as a recipient vein, and the first comitant vein of the flap was anastomosed to the vein in an end-to-end fashion. After revascularization, the second comitant vein became severely engorged; however, no additional veins were avail-

able at the recipient site. We thus anastomosed the second comitant vein to the distal limb of the first comitant vein in an end-to-end fashion (Fig. 2). The abdominal wall defect was reconstructed with the ilio-tibial tract. The patient's postoperative course was uneventful, and the flap survived completely.

There has been controversy about the routine use of dual venous drainage for the anterolateral thigh flap⁴; however, dual venous drainage is preferable when possible because it can reduce the take-back rate.⁵ In our method, the first comitant vein successfully drained the venous return from the second comitant vein as an intraflap flow-through conduit (Fig. 3). Intraflap vascular augmentation is frequently performed using abdominal flaps in breast reconstruction procedures, but it has been

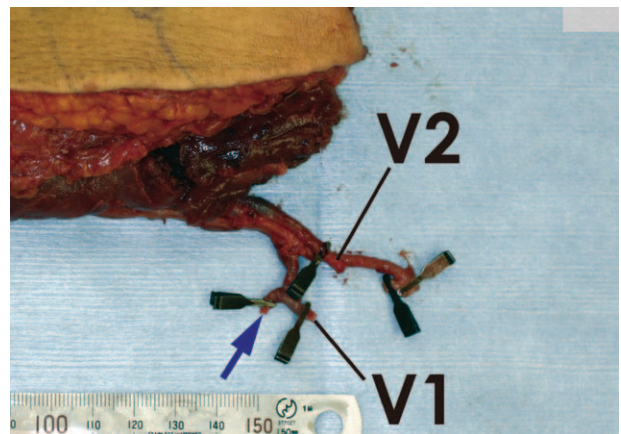


Fig. 1. Appearance of the vascular pedicle of the flap. Arrow indicates distal limb of first comitant vein; V1 the first comitant vein; V2, second comitant vein.

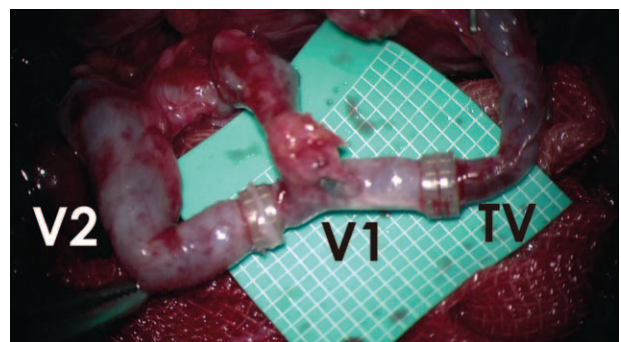


Fig. 2. Appearance of the venous anastomotic site under an operating microscope. Note that the second comitant vein was attached to the distal limb of the first comitant vein. TV indicates testicular vein; V1, first comitant vein; V2, second comitant vein.

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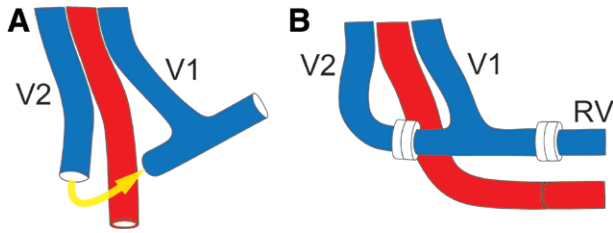


Fig. 3. Schematic drawings on the technique. A, Appearance of the vascular pedicle after flap harvest. B, Appearance of the anastomotic sites. RV indicates recipient vein; V1, first comitant vein; V2, second comitant vein.

rarely performed using anterolateral thigh flaps. We believe that our method can be a versatile option to achieve dual venous drainage for the anterolateral thigh flap when only 1 recipient vein is available.

Correspondence to Dr. Miyamoto
 Division of Plastic and Reconstructive Surgery
 National Cancer Center Hospital
 5-1-1 Tsukiji, Chuo-ku
 Tokyo 104-0045, Japan
 shimiyam@ncc.go.jp or s-miya@hh.ij4u.or.jp

DISCLOSURE

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