

Technical Tips to Trim the Stump of a Nonspurting Recipient Artery

Shimpei Miyamoto, MD

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

Yutaka Fukunaga, MD

Minoru Sakuraba, MD

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

Sir:

The selection of appropriate recipient vessels is essential for successful free flap transfer.¹⁻³ Furthermore, adequate proximal flow is absolutely necessary for successful anastomosis.⁴ When a blood spurt cannot be observed from the stump of a recipient artery, the artery should be shortened until a good spurt occurs. For such shortening, most microsurgeons cut the arterial stump with straight microscissors in a guillotine fashion (See Video 1, Supplemental Digital Content 1, which demonstrates preparation of an arterial stump in a guillotine fashion, <http://links.lww.com/PRSGO/A58>). However, the stumps are often excessively shortened because estimating where the artery should be cut to achieve a good spurt is difficult. In addition, shortening an atherosclerotic arterial stump in this way can cause intimal separation.⁵

We invented an efficient and atraumatic method for trimming nonspurting recipient arteries. First, we gradually make a longitudinal cut in the vessel wall with curved microscissors. During this step, the artery should not be clamped. When the cut reaches the healthy portion of the artery, a blood spurt immediately occurs. The clamp is then applied proximally, and the vessel wall is trimmed with a circumferential excision (Fig. 1).⁵

The main advantage of our method is that it minimizes the sacrificed length of the vessel. Our method also prevents overshortening of recipient vessels. In addition, circumferential excision of the vessel



Video 1. See video, Supplemental Digital Content 1, which displays preparation of an arterial stump in a guillotine fashion, <http://links.lww.com/PRSGO/A58>.



Video 2. See video, Supplemental Digital Content 2, which displays preparation of an arterial stump in a circumferential fashion, <http://links.lww.com/PRSGO/A59>.

wall causes less damage to the intima than does the guillotine cut and prevents intimal separation (See Video 2, Supplemental Digital Content 2, which demonstrates preparation of an arterial stump in a circumferential fashion, <http://links.lww.com/PRSGO/A59>).⁵ We believe that these technical tips will help microsurgeons to appropriately shorten nonspurting recipient arteries.

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

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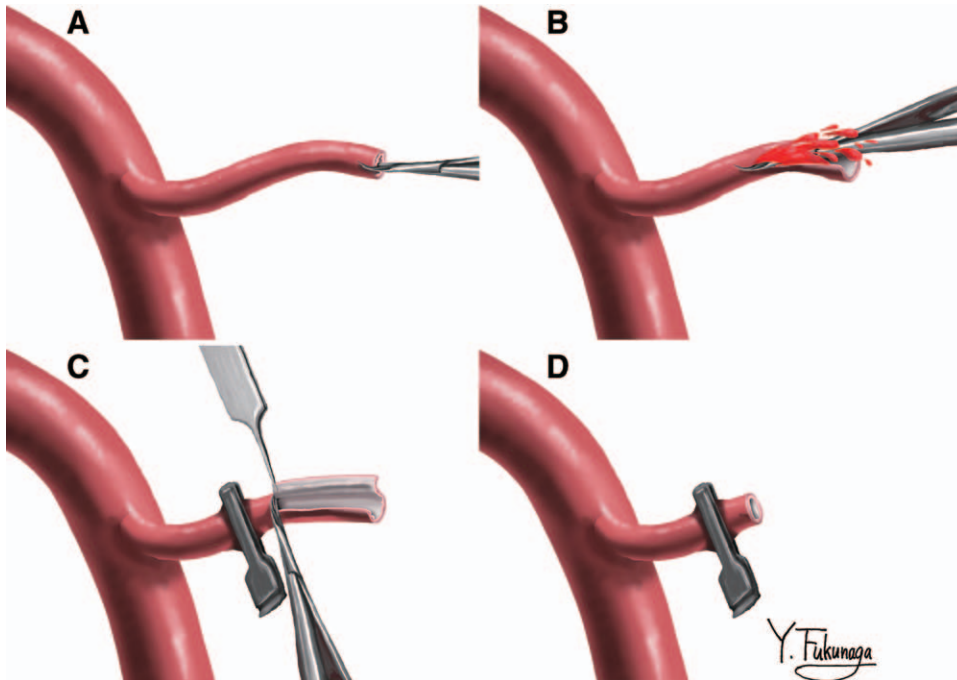


Fig. 1. Preparation of an arterial stump with our method. A, A longitudinal cut in the vessel wall is gradually made with curved microsissors without clamping. B, When the cut reaches the healthy portion of the artery, a blood spurt can be immediately observed. C, The vessel wall is trimmed with a circumferential excision after the clamp has been applied proximally. D, A recipient artery of adequate length and with a smooth lumen can be maintained.

DISCLOSURE

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