



# Subcutaneous pedicle V–Y flap for release of incomplete congenital syndactyly



Ken Yamashita\*, Takatoshi Yotsuyanagi, Makoto Yamauchi,  
Asuka Sugai, Ayako Gonda, Shinji Kato, Arisa Kita

Department of Plastic and Reconstructive Surgery, Sapporo Medical University School of Medicine,  
S1W16, Chuo-ku, Sapporo, Hokkaido 060-8543, Japan

Received 29 August 2015; accepted 24 April 2016

## KEYWORDS

Syndactyly;  
V–Y flap;  
Web;  
Hand;  
Foot

**Summary** *Background:* Various procedures for correction of congenital syndactyly of hand or foot have been described. For incomplete syndactyly, some of the reported techniques use only local flaps from surrounding tissues. A novel technique for the correction of incomplete syndactyly, using a dorsal triangular flap and two palmar small flaps, is described in this article. *Methods:* A triangular flap is first marked on the affected web space. The size of the flap should be the same as the unaffected side or other web space. Then a straight line is marked from the proximal apex of the triangle to the level of the metacarpophalangeal (MP) joint. After full skin incision, minimal peripheral undermining is done, and the triangular flap is transposed proximally, as in the Y–V advancement procedure, and sutured. Then two incisions are made from the distal part of the flap, transposing small flaps as in the five-flap method, and closed primarily.

*Results:* We treated ten cases of congenital syndactyly of the hand or foot. We were able to correct a good web space without skin grafting in all cases.

*Conclusion:* The design for our technique is simple, and the technique can be performed easily. The operation can be performed in a short time, the blood supply of the flap is preserved, the flap has a wide range of motion, and a deep and smooth dorsal slope is produced. This technique is an attractive alternative to previously reported methods for syndactyly correction.

© 2016 British Association of Plastic, Reconstructive and Aesthetic Surgeons. Published by Elsevier Ltd. All rights reserved.

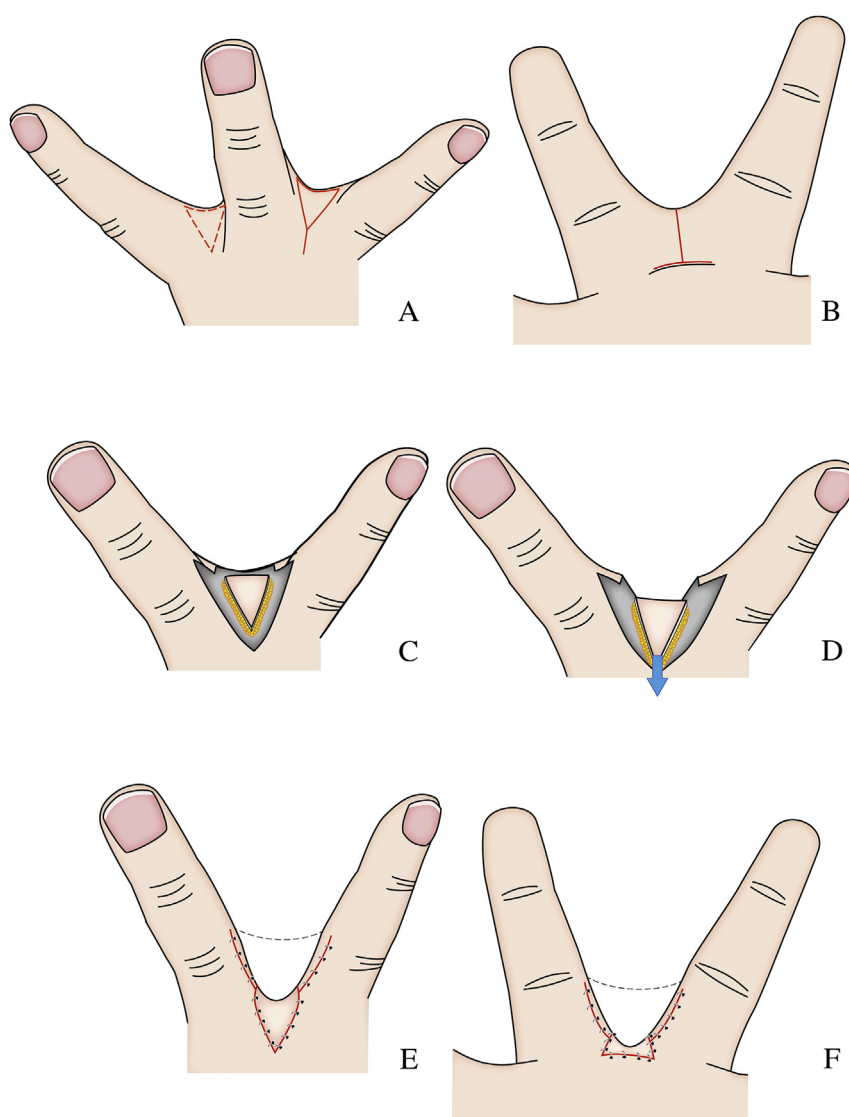
\* Corresponding author. Tel.: +81 11 611 2111, +81 90 7518 0079 (mobile); fax: +81 11 615 0916.  
E-mail address: [yamaken@ck9.so-net.ne.jp](mailto:yamaken@ck9.so-net.ne.jp) (K. Yamashita).

## Introduction

Various procedures such as skin grafting and the use of a combination of local flaps have been described for the correction of congenital syndactyly of the hand or foot.<sup>1–3</sup> There is a marked deficiency of skin in severe cases, and grafting must be included in the release.<sup>1–3</sup> However, in mild cases, such as incomplete syndactyly proximal to the proximal interphalangeal (PIP) joint, many techniques for releasing the web only with local flaps from surrounding tissues have been reported. Here, we report a novel technique for the correction of incomplete webbing using a subcutaneous pedicled V–Y flap.

## Technique and methods

A triangular flap is first marked on the affected web space (Figure 1A). The size of the flap should be the same as the unaffected side or other web space. Then a straight line is marked from the proximal apex of the triangle to the level of the metacarpophalangeal (MP) joint (Figure 1A). After full skin incision along the design, minimal peripheral undermining is performed without causing damage underneath the flap (Figure 1C). The triangular flap is transposed proximally, as in the Y–V advancement procedure, and sutured (Figure 1D). The flap does not have a skin pedicle, but a subcutaneous pedicle instead. Moreover, the flap is flexible, even with minimal undermining, with a wide range of motion. Furthermore, the flap position can be adjusted



**Figure 1** Schematic illustration of subcutaneous pedicle V–Y flap. A: Design of the V–Y flap. A triangular flap is designed along the web. B: Design of the volar side. C: After full skin incision, only peripheral undermining is needed. D: The triangular flap is flexible enough to be transposed proximally without any tension. E: The flap is sutured down into the web space. F: Palmar view. The suture lines become zigzag.

Download English Version:

<https://daneshyari.com/en/article/4117040>

Download Persian Version:

<https://daneshyari.com/article/4117040>

[Daneshyari.com](https://daneshyari.com)