

# Fingertip Reconstruction Using the Hypothenar Perforator Free Flap

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Nothing to disclosure

# Introduction

# Backgrounds

## Palmar skin flaps

- : Risk of scar contracture on the donor site
- ∴ Less commonly used than other flaps

## Hypothenar area

- : An alternative flap donor site
- ∴ Relative abundance of skin

# Objective of this study

To present the results

of using the hypothenar perforator free flap  
for fingertip reconstruction

∴ No report of the use of the flap

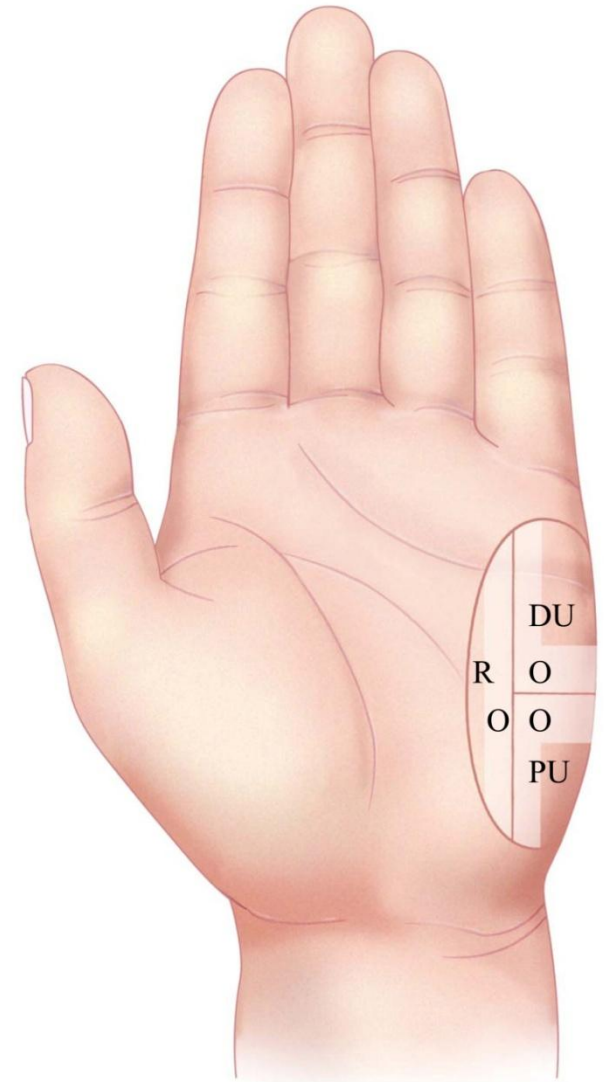
# Anatomy

PU, proximal ulnar area  
supplied by musculocutaneous perforators  
(proximal deep branch of the ulnar artery)

DU, distal ulnar area  
supplied by fasciocutaneous perforators  
(ulnar palmar digital artery of the little finger)

R, radial area  
supplied by perforators  
through the palmar aponeurosis  
(superficial palmar arch)

O, overlapping areas  
between the vascular territories



# Materials and Methods

# Fingertip reconstruction

Period: 2004 - 2012

Number: 24 (14 Men, 10 women)

Age: 28 - 71 (mean, 48.2) years

Follow-up: 6 - 51 (mean, 16.6) months

## Assessment of the results

Subjective: Opinion of patients & surgeons

Objective: Static two-point discrimination

# Results



# Total 24 flaps

## Flap size

1.5 - 2.5 cm in width, 2.7 - 4.5 cm in length

## Flap survival

Complete in 22 flaps

Causes of the 2 flap failures

: Less reliable perforator and compression

Postoperative accidental trauma

# Donor site

13 from the proximal ulnar area

7 from the distal ulnar area

4 from 2 or more areas

Primary closure in all patients

Uncomplicated healing of all donor sites

Opinions about 22 successful reconstruction

Patients: Completely satisfied

Surgeons: Good in 3, excellent in 19

Static two-point discrimination

Long-term follow-up for more than 1 year  
in 14 patients

Flaps: 2 - 6 (mean, 4.0) mm

Contralateral fingertips

: 2 - 5 (mean, 3.7) mm

# Case 1.

A 52-year-old man

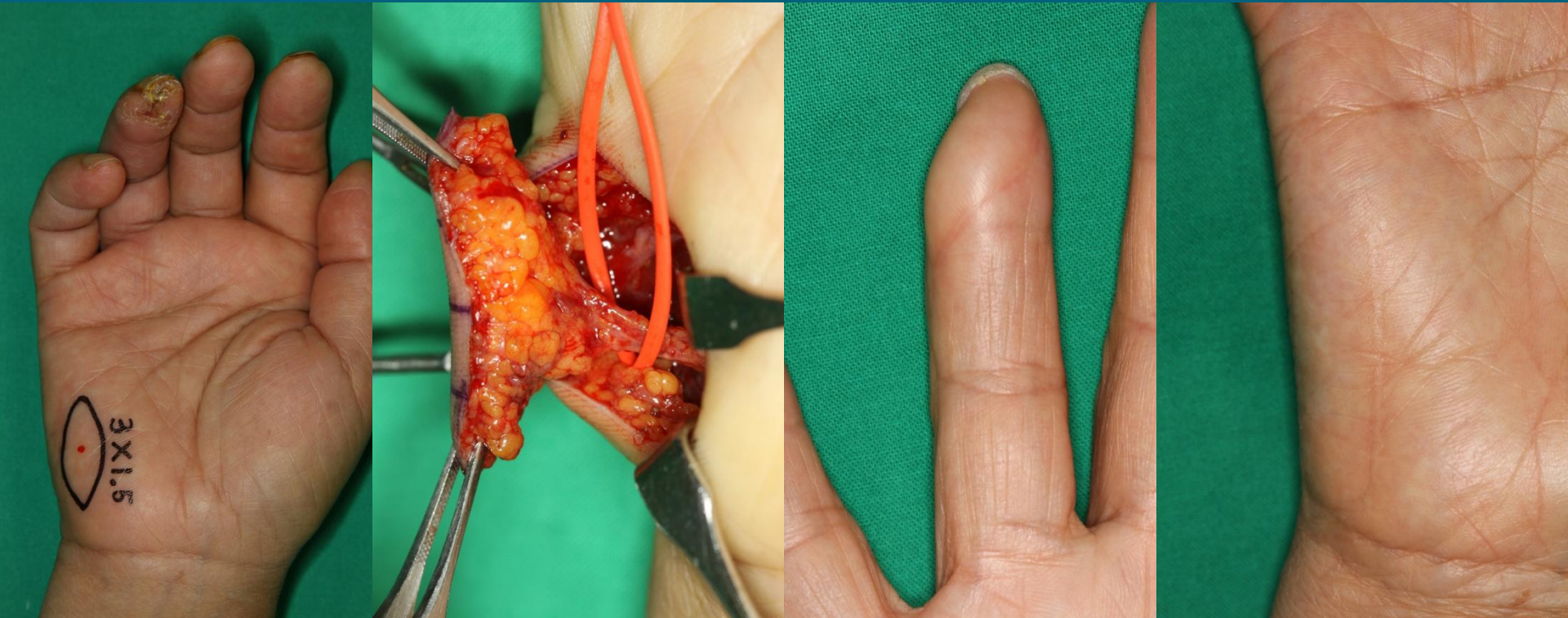
Use of the flap from the distal ulnar area



# Case 2.

A 60-year-old woman

Use of the flap from the proximal ulnar area



# Conclusions

The hypothenar perforator free flap provides acceptable functional and cosmetic outcomes for reconstruction of fingertip defects.

The authors recommend that this flap should be considered as a useful option for fingertip reconstruction.