

EP-231

짧은 혈관경의 부분 족지 pulp 유리피판을 이용한 수지 pulp 재건: 증례 보고

(Short-pedicle partial great toe pulp free flap for finger pulp reconstruction: a case series)



순천향대학교

황용선, 김준혁*

Purpose: Pulp defects of the fingers can lead to significant functional impairment and sensory loss, requiring durable and sensate soft-tissue reconstruction. The partial great toe pulp free flap is widely used for reconstruction because it provides glabrous skin with good sensory potential. Conventional techniques typically require proximal dissection of the pedicle to the first plantar metatarsal artery to obtain sufficient pedicle length, which may increase donor-site morbidity. We present a case series of finger pulp reconstruction using a short-pedicle partial great toe pulp free flap.

Methods: Five patients with finger pulp defects underwent reconstruction using a partial great toe pulp free flap between 2006 and 2026. The flap was harvested based on the plantar digital artery of the great toe with minimal proximal dissection. The pedicle was divided at the digital artery level rather than extending proximally to the metatarsal artery. Flap survival, donor-site morbidity, and aesthetic outcomes were evaluated.

Results: All flaps survived completely without vascular complications. The reconstructed finger pulp showed stable soft-tissue coverage with satisfactory contour. Donor-site morbidity was minimal, and the great toe maintained acceptable cosmetic appearance without significant deformity.

Conclusion: The short-pedicle partial great toe pulp free flap is a reliable option for reconstruction of finger pulp defects. This technique reduces donor-site morbidity while providing satisfactory functional and aesthetic outcomes.



Figure 1. A patient with traumatic pulp defects of the thumb, second, and third fingers. (A) Preoperative image showing pulp defects. (B) Reconstruction planned using bilateral partial great toe pulp free flaps to cover the pulp defects of the thumb and second fingers. (C) Flap elevation. (D) Harvested short-pedicle partial great toe pulp flap.



Figure 2. Clinical photographs of the same patient shown in Figure 1. (A) Immediate postoperative image. (B, C) Postoperative images at 1 month.



Figure 3. A patient with traumatic pulp defects involving the thumb, second, third, and fourth fingers. (A) Preoperative image. (B) Flap design. (C) Flap elevation. (D) Harvest of a short-pedicle partial great toe pulp free flap.



Figure 4. Postoperative clinical photograph of a patient with a traumatic pulp defect of the third finger. Image obtained at 1 month after surgery.