

Introduction: Cadaver studies have shown that some perforator flaps can be raised from the hypothenar area. However, a survey of the English language literature showed no report of the use of the hypothenar perforator free flap. The purpose of this study was to present the results of using the hypothenar perforator free flap for fingertip reconstruction.

Methods: Between 2004 and 2012, 24 patients underwent reconstruction of fingertip defects using the hypothenar perforator free flap at our institute.

Results: Flap survival was complete in 22 flaps. The causes of the 2 flap failures were the use of a less reliable perforator and pedicle compression in 1 patient and postoperative accidental trauma in 1 patient. Flap size ranged from 1.5 to 2.5 cm in width and 2.7 to 4.5 cm in length. Donor sites were closed primarily in all patients. Healing of all donor sites was uncomplicated, and donor site morbidity was minimal with acceptable scarring. In the 22 successfully reconstructed fingertips, flap contour, durability, elasticity, skin color, and skin texture were satisfactory at the final follow-up visit. Long-term follow-up for more than 12 months (range, 12 to 51 months) was possible in 14 patients and revealed excellent flap sensibility.

Conclusions: The hypothenar perforator free flap provides acceptable functional and cosmetic outcomes for the reconstruction of fingertip defects. The authors recommend that this flap should be considered as a useful option for fingertip reconstruction.