



Trochanteric Area Reconstruction With Free Flap Using Perforators As Recipients : An Alternative And Effective Option

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Purpose

The reconstruction of soft tissue defect on the trochanteric area is challenging. Due to significant complications of regional flap, free tissue transfer is an appropriate option. However, this area has poor recipient vessels. Then we present perforators as the recipient vessels to facilitate the use of free flap coverage for successful reconstruction of defects in the trochanteric area.

Method

From 2013 to 2017, 10 patients underwent free flap reconstruction for soft tissue defects of the trochanteric area (Fig. A). After preoperative CT or MRI images confirmed the enhanced perforating artery (Fig. B), the site on the skin was identified by Doppler. If the vessel was confirmed reliable, the operation was performed in the same manner as other free flaps. (Fig. C, D)

Result

All flaps survive, and the perforators selected for surgery include four superficial circumflex iliac artery perforators, four tensor fasciae latae artery perforators, and two inferior gluteal artery perforators. The average diameter of the recipient artery was 0.97 mm and the vein was 0.94 mm. One case exhibited arterial insufficiency caused by compression of hematoma; however, the flap fully survived through revised surgery.

Conclusion

The reconstruction of soft tissue defects in the trochanteric area are limited in recipient vessels. However, using a perforator vessel as a recipient facilitates the reconstruction via free flap coverage. This method provides acceptable flap survival and sufficient padding, with less morbidity and collateral injury.

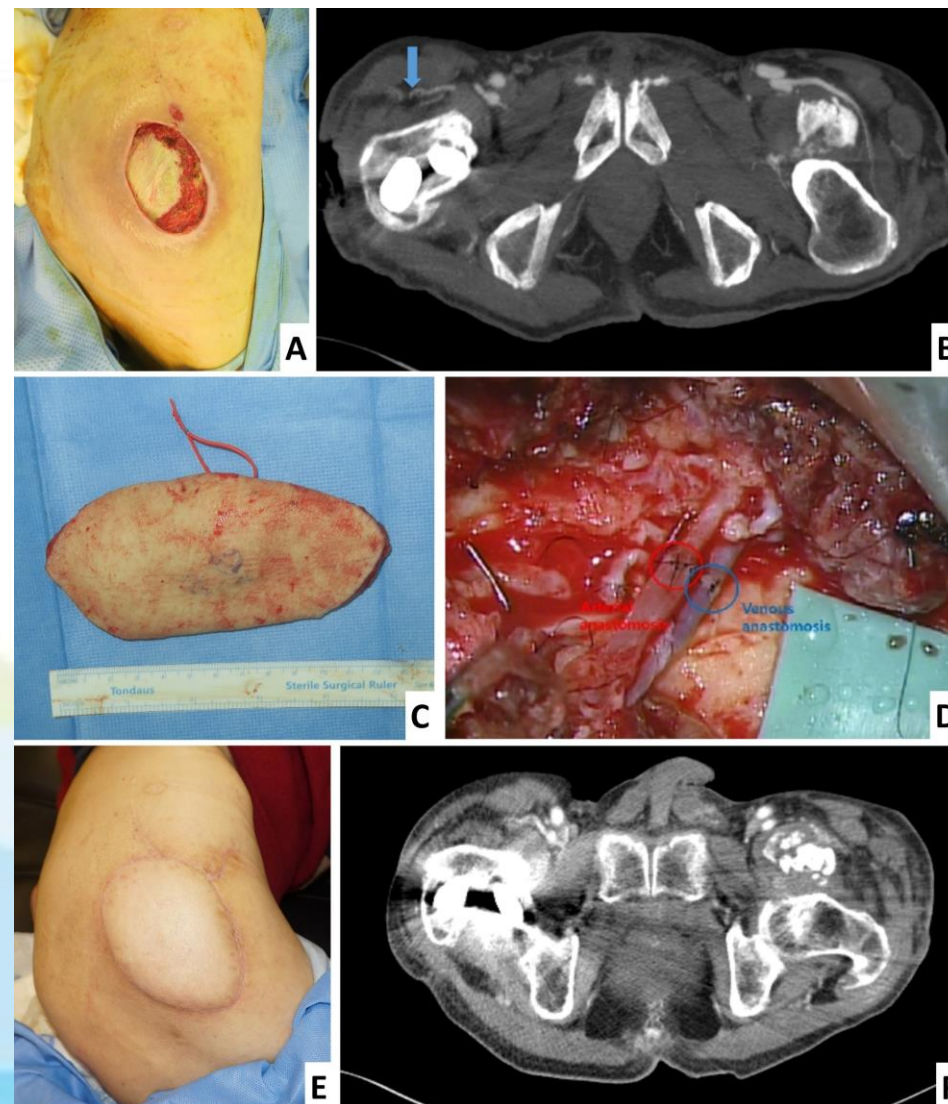


Figure A. Preoperative clinical photograph: The size of the right trochanteric defect before surgery was 9 cm x 7 cm and the base was exposed to escharous muscle fascia. Figure B. Preoperative CT showed that the SCIP was dominant. Perforator is indicated by the arrow.

Figure C. Harvested flap: Left ALT perforator flap was harvested, and its size measured 14cm x 8cm. Figure D. Microsuture: Recipient and donor perforators were anastomosed end-to-end. Figure E. Postoperative clinical photo: The patient was followed up for 10 months with no other complication.

Figure F. Postoperative CT: Abundant soft tissues were padded at the defect site and an anastomotic vessel was well maintained in the postoperative CT