

# The ulnar digital artery perforator flap: A new flap for little finger reconstruction- our experience and reply

Sir,

In reference to the article about ulnar digital artery perforator flap published in IJPS by Panse and Sahasrabudhe<sup>[1]</sup> we have used this flap in two cases recently, of traumatic amputation of little finger (female patient of 20 years and a male patient of 35 years old). In both cases, it was an avulsion amputation injury with loss of distal phalanx and exposure of bone and tendons. Both patients refused groin flap and also cross finger flap, so this flap was selected as a last option. We did audio Doppler in both cases preoperatively to find dominant signal (site of perforator), which was around 2-3 mms distal to distal palmar crease. On the exploration, this was found to be the largest perforator of ulnar palmar digital artery. Complete length of the hypothenar eminence was used to raise the flap under tourniquet and with magnification. Both flaps were raised in subfascial manner and donor area primarily closed. The flap could entirely cover the volar and dorsal surface of exposed middle phalanx. In both cases, distal half of the flap had venous congestion after 24 h, for which removal of sutures, leeches, pentoxifylline and low-molecular-weight heparin was tried. But ultimately it leads to dry necrosis of the distal half of the flap, which got separated on its own after 2 months with healed wound inside.

We wish to bring up this important issue of flap congestion in the ulnar digital artery perforator-propellar flap. Since we used both the flaps in case of avulsion injuries, the likelihood of avulsion injury to the ulnar digital artery, and thereby its perforators could not be ruled out, and we were just lucky to pick up one on Doppler. But if we assess retrospectively, it is probably because of this nature of the injury that both the flaps suffered distal necrosis. There is not much literature on the use of this flap, and case series that have been published are also small in number. Therefore, it becomes more important to use this flap with caution. This flap uses the ulnar border of hand to cover the little finger stump resulting in severe scarring of an important contact surface along the ulnar border of the

hand. This too is an accepted handicap of this flap.

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## REFERENCE

1. Panse N, Sahasrabudhe P. The ulnar digital artery perforator flap: A new flap for little finger reconstruction — A preliminary report. *Indian J Plast Surg* 2010;43:190-4.

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