The ulnar digital artery perforator flaps

Sir,

We read with interest the letter by Kulkarni *et al.*<sup>[1]</sup> on the ulnar digital artery perforator flap. The authors have shared an important issue of flap congestion in their experience of two cases of avulsion injury. We agree with the authors that injury in both cases was avulsion in nature, and likelihood of injury to the perforator could not be ruled out. Although Doppler revealed signals of the perforator, since there is the ulnar digital artery running parallel underneath, Doppler done from the palmar aspect can be unreliable at times giving some false positive signals.

For the sake of completeness and to shed some more light on the issue at hand, this letter needs some more comments.

Hao *et al*.<sup>[2]</sup> have published their work on the ulnar palmar perforator flap in which they describe their experience of 30 cadavers and 16 clinical cases. Of the 16 cases, 12

flaps based on perforators of the ulnar palmar digital

artery have opened up newer and convenient options for reconstruction in the arc of rotation of these flaps. The indications for the use of these flaps are precise, and due care must be taken in proper patient selection to optimize the results of the ulnar digital artery perforator flaps.

Recent clinical and anatomical studies on perforator

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were due to crush injury, 2 were due to explosion and 2 were due to burns. They had successful outcomes in all cases.

The flaps in all the cases were perfused by the perforators of the ulnar palmar digital artery of the little finger and were harvested from the dorsoulnar aspect of the hand. Hao *et al.*<sup>[2]</sup> feel that the skin here is more thin and pliable.

Besides, as there are no superficially located main arteries on the dorsoulnar aspect of the hand, it makes the Doppler signal more reliable.

After Panse and Sahasrabudhe<sup>[3]</sup> had reported anatomical and clinical series for reconstruction of defects of the little finger, Toia *et al.*<sup>[4]</sup> further investigated the anatomy. They have noted that constant perforators from the ulnar palmar digital artery which are directed to volar and dorsal skin arise within a similar distance of the metacarpophalangeal joint.<sup>[2,4,5]</sup>

This makes possible harvesting flaps from the hypothenar region (as illustrated by Panse *et al.*) as well as the dorsoulnar aspect of hand (as demonstrated by Hao *et al.*) based on the ulnar palmar digital artery perforators.

Toia *et al.*<sup>[5]</sup> have also pointed out possible advantages when area of flap harvest is from the palmar aspect. Bigger flaps can be harvested from the palmar aspect as compared to the dorsoulnar aspect, with primary closure of the donor site. It avoids skin grafts and scars on the dorsal and ulnar (social) surface of the hand. When volar aspect of the little finger is to be resurfaced, flap harvest from the palmar aspect will replace palmar skin with palmar skin respecting the principle of replacing like with like. Similarly, flaps from the dorsoulnar aspect can be a better option for resurfacing the dorsal aspect of the little finger. Address for correspondence:

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Access this article online	
Quick Response Code:	Website: www.ijps.org
	DOI: 10.4103/0970-0358.155287