



SHAPE MODIFIED RADIAL ARTERY PERFORATOR FLAP

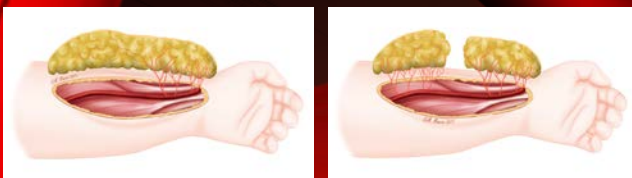
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INTRODUCTION

- Shape modified artery perforator is a modification of the radial forearm flap developed on the perforator flap method*
- A long elliptically shaped flap is harvested from the radial forearm and each perforator allows to obtain up to 3 segments.
- "Flap in flap" can be modified to match the shape of the tridimensional recipient site because rotation of small components can reach up to 180 degree (Figure 1)

FIGURE 1



* Mateev M. Shape Modified Radial Artery Perforator Flap Method: Analysis of 112 cases PRS 2009 123(5):1533-1543

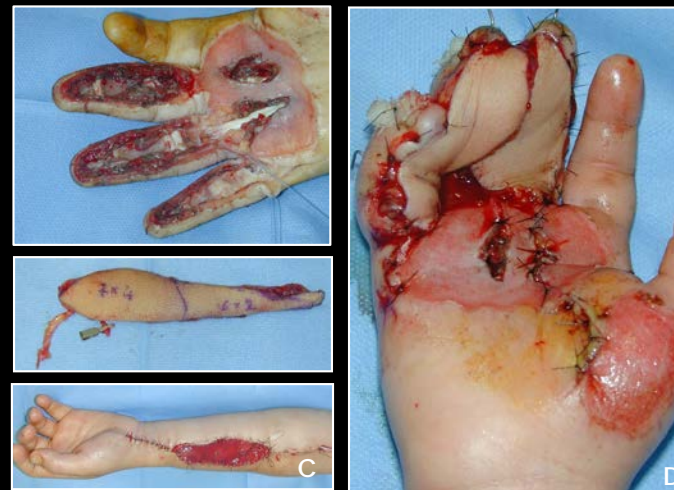
METHODS

The authors analysed 5 cases of reconstruction with this technique with regards to injury, donor site morbidity, whether the flap was free or pedicled, number of component that were divided by perforator, quality of outcome (Table 1)

RESULTS

The reconstructed areas were in the hand and elbow. Free flaps were used in 2 cases. All flaps survived completely. The morbidity of donor site was better when a direct closure was performed, although the use of Integra dermal substitute improved the cosmetic result.

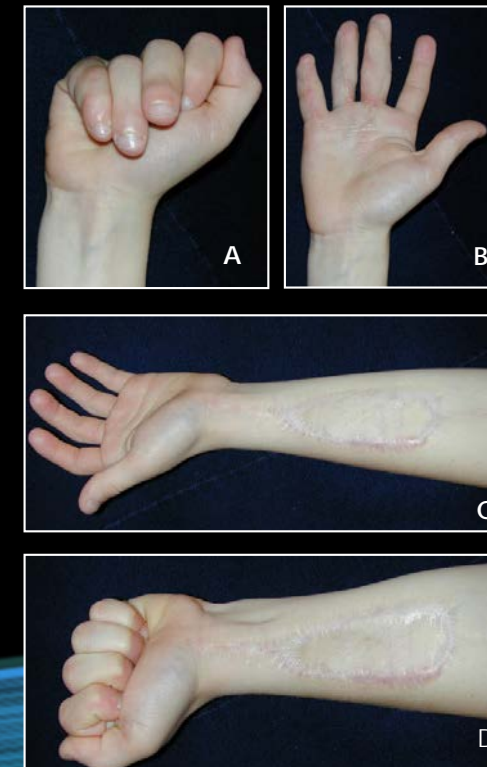
FIGURE 2 **



CONCLUSIONS

This method can be considered as a sort of propeller flap with resemblance to the "flap in flap" method, but with minimal donor site morbidity and versatility due to its thinness. Despite radial artery sacrifice, this flap is safe for adult and young patients.

FIGURE 3 ***



**A) Friction injury in 7 year old boy with loss of right hand flexors tendons and volar skin of 3rd, 4th and 5th fingers. B,C,D) After flexor tendons reconstruction, a radial free flap subdivided in two segments was used to resurface the volar aspect of fingers, a dermal substitute (INTEGRA®) was employed to cover the donor site.

***A-B) Post operative result after 18 months with restoration of function in R. hand; C-D) Donor site result.

TABLE 1

Age	Sex	Defect	Type of Flap	Donor site closure	Flap's segments
36	M	Hand	Pedicled	DIRECT	2
57	M	Hand	Free	INTEGRA®	2
52	F	Elbow	Pedicled	DIRECT	3
7**	M	Hand	Free	INTEGRA®	2
26	M	Hand	Pedicled	DIRECT	2