

Comments on “Utility of First Dorsal Metacarpal Artery Flap for Thumb Defects”

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Dear Editor,

I reviewed the study “Utility of First Dorsal Metacarpal Artery Flap for Thumb Defects,” by K. Aggarwal and K. Singh, published online in the *Indian Journal of Plastic Surgery*.¹ The study is well designed and the findings are presented in the discussion section accompanied by the literature.

The first dorsal metacarpal artery (FDMA) flap is particularly useful for 1st and 3rd finger defects.^{2,3} The advantages of this flap are that its vascular anatomy is stable, its learning

curve is short, and its donor site morbidity is low.⁴ The major disadvantage is venous insufficiency occurring in the flap.^{1,4} Venous insufficiency and necrosis are inevitable in cases where the width of the pedicle is narrow and the pedicle is compressed (→ **Fig. 1**).

If the FDMA flap is to be designed as an island, the pedicle width should be at least 5 mm to prevent venous insufficiency.² In addition, if the flap is to be transferred to the recipient area by tunneling, it should be ensured that the tunnel width is sufficient. If a skin incision is to be made without tunneling during the flap transfer phase, the incised skin should not be resutured on the pedicle. It should be preferable to place a graft on the incision line (→ **Fig. 2**).



Fig. 1 View of a patient who developed partial necrosis after venous insufficiency during follow-up.



Fig. 2 The pedicle width should be at least 5 mm to prevent venous insufficiency.

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In this study by K. Aggarwal and K. Singh, it was understood that the skin on the pedicle was incised at the flap inset stage in some patients and sutured again after flap transfer. After the incision, tissue contraction and edema occurred. When the edematous contracted tissue is resutured, it compresses the pedicle below, and after compression, circulation disorder occurs in the flap. This may be the cause of partial necrosis in some patients in the study. Therefore, pedicle width of at least 5 mm and the use of a sufficiently wide tunneling technique can prevent venous problems during flap transfer.² If a skin incision is to be made without using a tunnel, the skin should not be resutured, but the pedicle should be grafted.

Authorship

The conception and design of the study, or acquisition of data, or analysis and interpretation of data: Ilker Uyar
Drafting the article or revising it critically for important intellectual content: Ilker Uyar

Final approval of the version to be submitted: Ilker Uyar

Informed Consent

Informed consent was obtained.

Conflict of Interest

None declared.

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