Case Report

International Journal of Research and Review
Volume 11; Issue: 11; November 2024
Website: www.ijrrjournal.com
E-ISSN: 2349-9788; P-ISSN: 2454-2237

Magical Relief of Venous Congestion in Finger in Case of Quaba Flap for Finger Contracture

Dr Bhavesh Choudhary[1], Dr Alina Shaikh[2], Dr Rishi Patil[3], Dr Sujit Mhaske[4], Dr Onkar Patil[5], Dr Yashashree Ganjale[6], Dr Ananta Kulkarni[7]

[1]Intern, [2]Intern, [3]Intern, [4]Intern, [5]Intern, [6]Junior Doctor, [7]Head of department,
Bharat Ratna Atal Bihari Vajpayee Medical College Pune.

Corresponding Author: Dr Bhavesh Choudhary

DOI: https://doi.org/10.52403/ijrr.20241145

ABSTRACT

The DMCA flap also known as Quaba flap serves as a valuable option for reconstructive hand surgeons, particularly for addressing dorsal finger defects when other flap options are limited. It aligns with reconstructive principles, offering simplicity, reliability, and minimal donor site morbidity. This report details the case of a female with a contracture on the right index finger and briefly explores various DMCA flap variations to obtain the best mobility of the flexion creases without sacrificing the main artery

KEYWORDS: Quaba flap, Contracture, Reconstructive surgery, Intradermal Suture

INTRODUCTION

Soft tissue defects in the hand following trauma or tumour removal present a complex challenge for plastic surgeons, irrespective of the patient's age, gender, or ethnicity. In accordance with current surgical protocols, it is recommended to safeguard the major arteries through the use of local or free perforator flaps. The existing options for finger defects are either unreliable as they are close to the zone of injury (dorsal transposition or rotation flaps, distally based turnover flaps) or entail a two-stage procedure (reverse cross-finger flap) In light of recent microsurgery advancements, free flap transfer presents itself as a compelling yet intricate approach. Instead of solely serving as a donor site, the literature suggests that the dorsum of the hand can also serve as a recipient area for flaps. To address the limited reconstructive choices for dorsal finger defects, the dorsal metacarpal artery (DMCA) flaps emerge as a viable and appealing alternative

CASE REPORT

The Quaba flap was used in this case where the patient,32year female came with contracture of right index finger[figure.1]. The patient was subjected to detailed medical history and physical examination, aiming to identify any prior conditions and/or scars of the affected hand dorsum that could jeopardize the flap viability. After careful debridement of the injured finger, we considered a single-stage reconstructive flap surgery as mandatory, considering the location of the defect and the tendons' exposure. The local perforator flap with a distally based pedicle we decided on was the Quaba flap. The Quaba flap can be elevated from the metacarpophalangeal joint to the distal edge of the extensor retinaculum, with a width between 1 and 5cm.

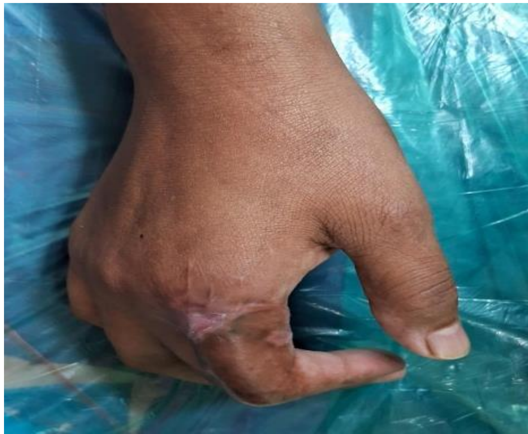

Figure 1 Contracture of Right Index Finger

We used the wide-awake local anaesthesia no tourniquet (WALANT) technique which provided the patient with better comfort during the surgical procedure. In addition, this type of anaesthesia facilitates the safe dissection of the pedicle without the unwanted side effects associated with opiates or sedation. The elevated flaps were projected on the 1st intermetacarpal space, with the width of 1.5cm and the length of 5cm.

To create a path from the flap pedicle to the defect, the skin was incised, and the flap was rotated, covering both the incision and the defect (Figure 2). The donor site was closed primarily with an intradermal suture for the best aesthetic result (Figure 3). Patient were discharged the next day and she regularly returned to our hospital for follow-up check-ups the flap healed primarily after 14 days, but the patient had complaints of distal venous congestion, treated conservatively with dressings and elevation of limb (Figure 4 & 5). The wound completely healed after 20 days. The donor site healed uneventfully, with minimal, linear scar formation.

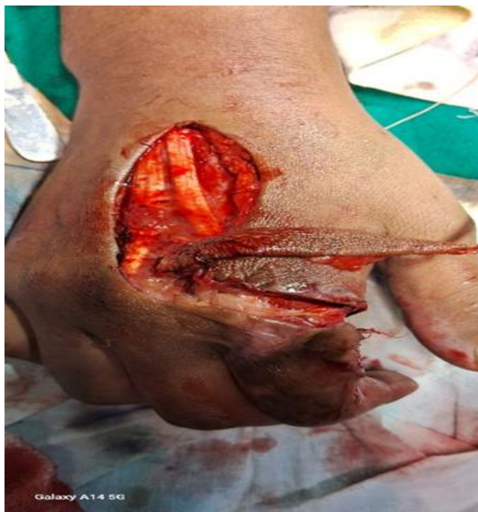

Figure 2 Flap Pedicle

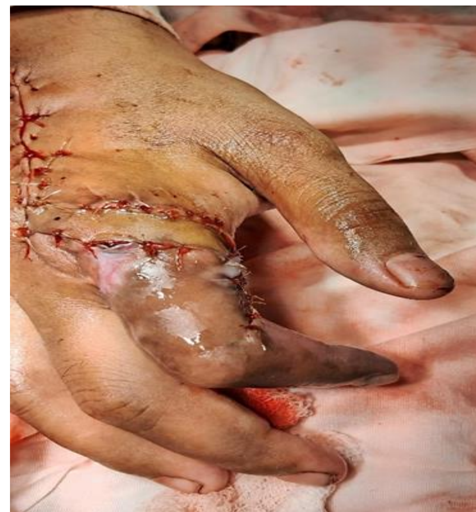

Figure 3 Post Operative

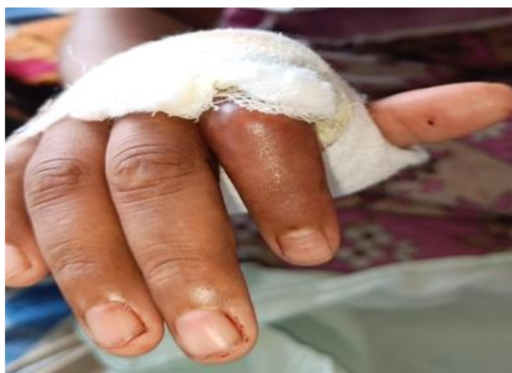

Figure 4 Venous Congestion Post Operatively

Figure 5 Venous Congestion Relieved by Limb Elevation

CONCLUSION

The Quaba flap has the advantage of being a distally based perforator axial flap that can reconstruct soft tissue defects. It is a safe flap, with an easy operative technique, without significant intraoperative or postoperative complications, minimal donor site morbidity, and good functional and aesthetic outcomes and the venous congestion is relieved by elevation of limb and proper dressings.

Declaration by Authors

Acknowledgement: None

Source of Funding: None

Conflict of Interest: No conflicts of interest declared.

REFERENCE

1. Bordianu A, Leoveanu FI. Hand soft tissue reconstruction with dorsal metacarpal artery perforator (Quaba) flap. J Med Life. 2021 Sep-Oct;14(5):731-736. doi: 10.25122/jml-2021-0313. PMID: 35027979; PMCID: PMC8742893.
2. Amirize, E.E., Alhassan, T. (2022). Quaba Flap . In: Almeshal, O., Aldekhayel, S., Alshomer, F. (eds) Soft Tissue Reconstruction of the Hand: Loco-regional and Distant Flaps Selection and Approach. Springer, Singapore. https://doi.org/10.1007/978-981-16-9945-0_23
3. Hierner R, Putz R, Bishop A T, Shen Z, Wilhelm K. Elsevier; 2014. Flaps in Hand and Upper Limb Reconstruction: Surgical Anatomy, Operative Techniques and Differential Therapy; pp. 170–175.
4. Koch H, Bruckmann L, Hubmer M, Scharnagl E. Extended reverse dorsal metacarpal artery flap: clinical experience and donor site morbidity. *J Plast Reconstr Aesthet Surg.* 2007;60(4):349–55.
5. Bailey SH, Andry D, Saint-Cyr M. The Dorsal Metacarpal Artery Perforator Flap: A Case Report Utilizing a Quaba Flap Harvested from a Previously Skin-Grafted Area for Dorsal 5th Digit Coverage. *Hand (N Y)* 2010;5(3):322–325.

How to cite this article: Bhavesh Choudhary, Alina Shaikh, Rishi Patil, Sujit Mhaske, Onkar Patil, Yashashree Ganjale et.al. Magical relief of venous congestion in finger in case of Quaba flap for finger contracture. *International Journal of Research and Review*. 2024; 11(11): 464-467. DOI: *https://doi.org/10.52403/ijrr.20241145*

******