Ulnar Parametacarpal Flap for Coverage of Fifth Finger Defects: Propeller Flap Concept

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Abstract : Background: Defects of the little finger and adjacent areas are not uncommon. It could be a traumatic, post-burn, or after contracture release. Different options could be used for resurfacing these defect, including skin grafts, local or regional flaps. Ulnar para-metacarpal flap described by Bakhach in 1995 based on the distal division of the dorsal branch of the ulnar artery considered a good option for that. In this work, we applied the concept of propeller flap for better mobilization and insetting of the ulnar para-metacarpal flap. Methods: The study included 15 cases with 4 females and 11 male patients. 10 of the patients had severe post-burn contractures of little finger, and 5 had post-traumatic little finger defects. Contractures were released and resulting soft tissue defects were reconstructed with propeller ulnar para-metacarpal artery flap. The flap based on two main perforators communicating with the palmar system, it was raised based on one of them depending on the extent of the defect and rotated 180 degrees after judicious dissection of the perforator. Results: 13 flaps survived completely, one of the cases developed partial skin loss, which healed by dressing, another flap was completely lost and covered later by a full-thickness skin graft. Conclusion: Ulnar para-metacarpal flap is a reliable option to resurface the little finger as well as adjacent areas. The application of the propeller flap concept based on whether the proximal or distal communicating branch makes the rotation and in-setting of the flap easier.

Keywords : little finger defects, propeller flap, regional hand defects, ulnar parametacarpal flap

Conference Title : ICPPPS 2019 : International Conference on Principles and Practice of Plastic Surgery

Conference Location : Dubai, United Arab Emirates

Conference Dates : November 07-08, 2019

1