COMPOSITE GRAFTING FOR TRAUMATIC FINGERTIP AMPUTATIONS IN AN ADULT; A CASE REPORT

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Introduction: Distal fingertip amputation is a common upper limb injury seen in the emergency department and there were many treatment options has been described, aiming for finger length preservation, good soft tissue coverage, and best functional and aesthetic outcomes. Composite grafting is one of surgical method that is able to maintain digital length and provide soft tissue coverage without donor site morbidities in microsurgically non-replantable fingertip amputations. This procedure is a simple, cost- and time-effective technique with a very good results, especially in children.

Discussion: A 25-year-old non-smoking male had a cutting injury to his right index finger by an electric meat cutter. The fingertip was amputated, and the injured level was Allen's type III. Composite grafting was performed at 12-hour post injury. The injured finger was anesthetized by digital block with 2% lignocaine solution. A latex rubber band was applied at the base of the injured finger to provide a tourniquet effect. The distal amputated fingertip was debrided and defatted to decrease the graft thickness. The amputated stump was also debrided and de-epithelialized circumferentially to increase the contact surface between the distal amputated fingertip and the amputated stump, so it can reattach like a "cap" A 1.0mm axial k-wire was inserted to act as a splint. Post-operatively, noted the graft failed and became necrotic. It fell off 3 weeks later revealing area of granulation tissue with no bone exposed. At 3 months post-op, the amputated stump has healed and epithelized fully, no neuroma and no hook nail deformity seen. The patient was satisfied with the outcome.

Conclusion: By performing a composite graft on the amputated digit, at least the patient is given some hope of maintaining digital length and function. Even when not successful, the graft will act as biological dressings. But, if the graft takes, then truly this is advantageous.