

HALF FILLETED FLAP FOR THUMB RECONSTRUCTION A CASE REPORT

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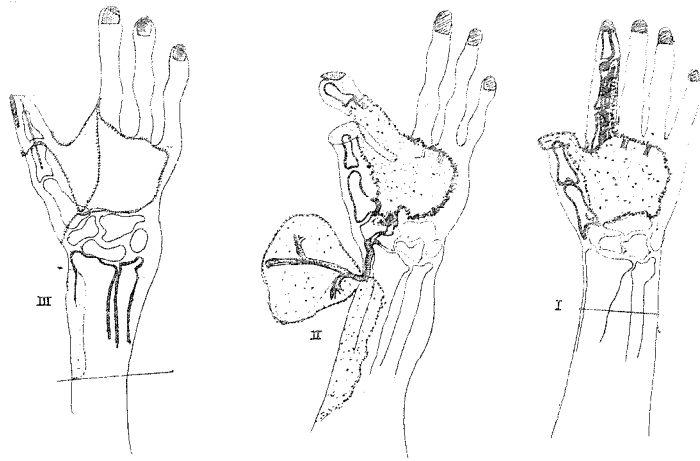
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KEY WORDS :

Salvage, Function.

ABSTRACT

Major injury to the hand is a difficult problem to treat. Even after best of care, it is often difficult to get the hand rehabilitated back to its full function. In an attempt to preserve all the full complements of the hand, one tends to preserve all the viable tissue even when the functional capability is irreparably damaged. The end result is a stiff posts which interfere with the basic function of hand. By careful initial assessment of the injury this can be avoided. It is also possible to use viable tissue from damaged finger on to another finger, which is less damaged and whose functional capability is unaffected. Use of a filleted flap is one such method. A case is presented, where full complement of distal phalanx, nail complex and other soft tissues were pedicled on the Proximal Filleted skin of Index finger to reconstruct the



Sketch showing :

- i) Defect.
- ii) Radial artery forearm flap and filleted proximal index finger.
- iii) Reconstructed thumb web and fixation of T.P. to P.P. by K. wire



Photographs showing :

- i) Defect.
- ii) Post-op. after reconstruction.
- iii) Function (Pinch grip and grasp.)

terminal phalanx of the thumb and the soft tissue of the Thumb web.

CASE REPORT :

A twenty five year old had an industrial accident resulting in the following injuries.

1. Loss of skin and soft tissues of thumb web and Dorsum of Rt hand.
2. Loss of Extensors to Index, Mid finger and Ring finger.
3. Amputation of Thumb at the level of DIP joint.
4. Badly damaged index finger with crushed proximal and Middle phalanx.

Immediate wound debridement was done. After 48 hours when there was no further necrosis, it was decided to reconstruct the hand as follows :-

1. Radial artery forearm flap with palmaris Longus tendon for extensor graft for mid and ring finger and dorsal skin defect.

2. Since the Index finger was badly damaged with multiple fractures of middle phalanx and Proximal Phalanx and loss of skin and tendons on the radial side of the proximal finger, the proximal index finger was filleted keeping the Distal phalanx and the nail pedicled on the proximal filleted skin. This "half filleted flap" was used to reconstruct the Thumb Web and the terminal phalanx of the Thumb. The TP was fixed with a K wire to the PP of Thumb. Small raw area on the dorsum was skin grafted. Post operative period was

unevetful. K wire was subsequently removed after 3 weeks. Physiotherapy was started and patient developed a successful pinch grip and grasp.

DISCUSSION

A filleted finger skin flap restores protective qualities of normal skin. During primary care functionally worthless digit is available for use as a valuable source of spare tissue. Before the fillet is done, needed spare parts have to be inventoried. For a metacarpal defect, finger filleted flap can become a composite graft by having a phalanx attached to fill the metacarpal bony gap. Tendons can be transferred or used as free grafts even the finger nail may contribute to total hand reconstruction, as used in this case.

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