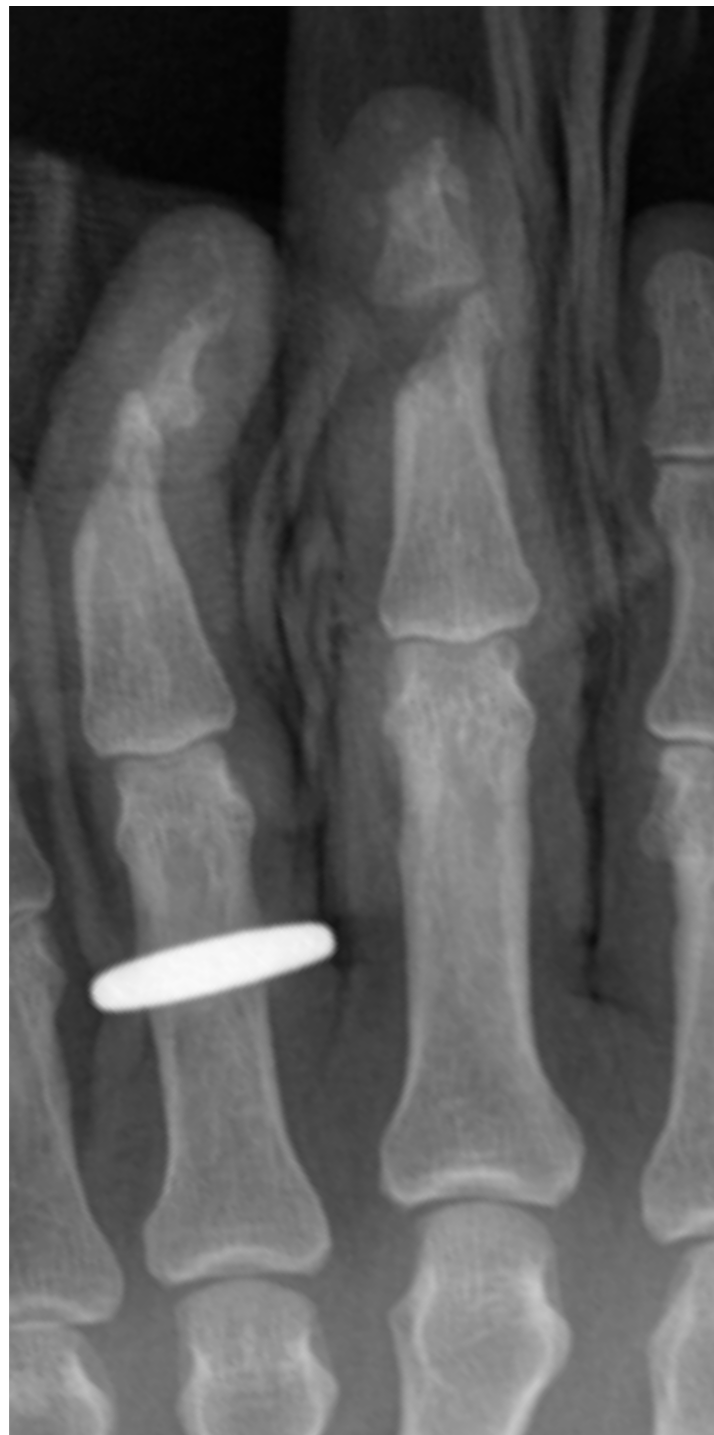
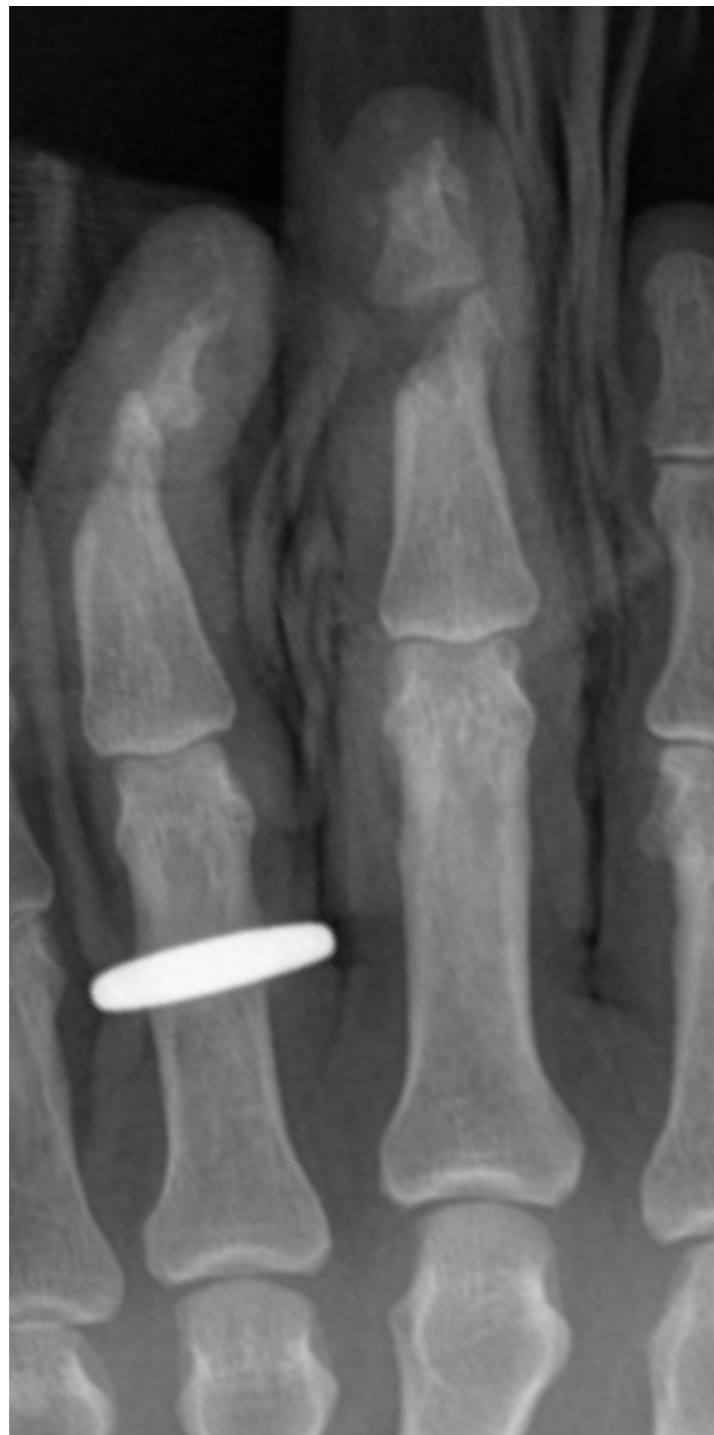




64 yo woodshop teacher and musician sustained a jointer injury to the dorsum of the left long and ring fingers. He has loss of the soft tissue, portions of the distal phalanx, the DIP joint and middle phalanx for each digit.



He reports that for him to play his musical instrument it is important to have the length of the digit. What would be your surgical plan for reconstruction?



What would be your surgical plan for reconstruction?

He would require DIP joint arthrodesis and soft tissue reconstruction by way of; a turn over flap, a retrograde homodigital flap or some other pedicle flap



Flap planning after arthrodesis and antibiotic methyl methacrylate

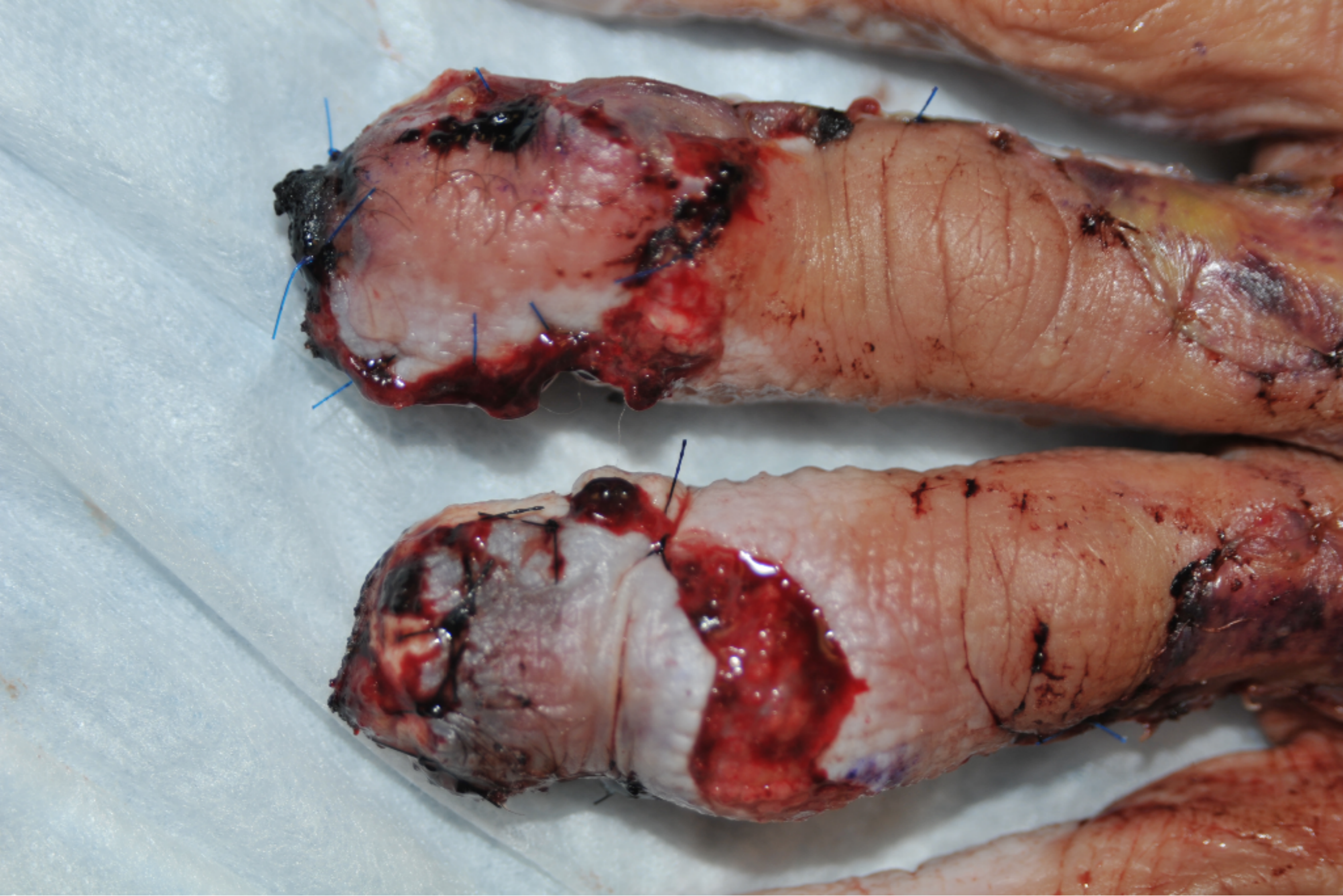


Ring finger flap inset and long finger flap elevated



DIP arthrodesis with single k-wire and delayed bone grafting.

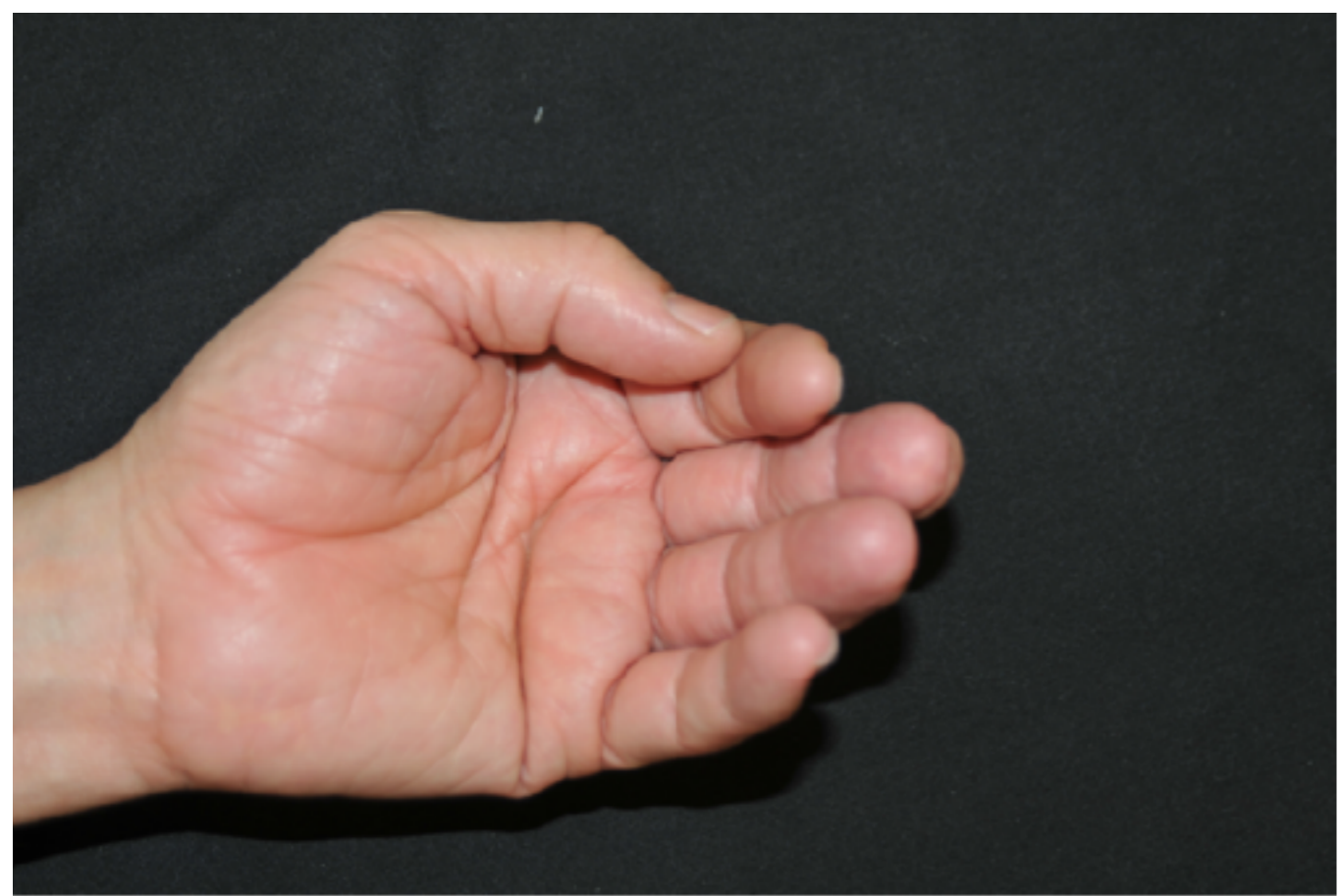
Reversed homodigital flap. At ring finger there was ecchymosis within the skin of the flap when it was being raised suggesting trauma at the time of injury. Decision not too close tightly



5 days



Post op day 12



3 months post injury and at time of removal of cement bone grafting



Appearance 3 months post bone grafting



Left long finger



Left ring finger

Learner Outcome

Describe management of dorsal defects about the
DIP joints

References

1. A Versatile Method for Reconstruction of Finger Defects: Reverse Digital Artery Flap. Lai CS, et al. British Journal of Plastic Surgery (1992) 45:443-453
2. Arterial system of the fingers. Strauch B, De Moura W. Journal of Hand Surgery (1990) 15A:148-54
3. Fingertip Reconstruction with a Dorsal Island Homodigital Flap. Shibu MM, et al. British Journal of Plastic Surgery (1997) 50: 121-124.
4. Reverse Homodigital Dorsoradial Flap for Thumb Soft Tissue Reconstruction: Surgical Technique. Hrabowski M, Kloeters O, Germann G. Journal of Hand Surgery (2010) 35A: 659-662
5. Use of the Homodigital Adipofascial Turnover Flap for Dorsal Cover of Distal Interphalangeal Joint Defects. Jeffery SLA, Pickford MA. Journal of Hand Surgery (British and Euro Vol, 1999) 24B(2): 241-244

References

6. Homodigital Reconstruction of the digits: The perspective of one unit. Elliot D. Indian Journal of Plastic Surgery (2003) 36(2): 106-119
7. Reconstruction of distal phalangeal injuries with the reverse homodigital island flap. Momeni A, et al. Injury, Int. J. Care Injured (2008) 39: 1460-1463
8. The Anterograde Homodigital Neurovascular Island Flap. Katz RD. Journal of Hand Surgery (2013) 38A: 1226-1233.
9. Randomized Prospective Study Comparing Reverse and Direct Flow Island Flaps in Digital Pulp Reconstruction of the Fingers. Braga-Silva J, et al. Plastic and Reconstructive Surgery (2009) 124(6): 2012-18