

## Pie Crusting Technique: An Innovative Method for Fasciotomy Wound Closure

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### INTRODUCTION:

Compartment syndrome is an orthopaedic emergency which requires urgent fasciotomy to prevent limb compromise. However, wound coverage post fasciotomy can be tricky. We report an interesting method to close a fasciotomy wound i.e. pie crusting technique

### REPORT:

24-year-old gentleman sustained a closed fracture of right femur complicated with compartment syndrome, done urgent fasciotomy and external fixation in the operating theater. Post-op patient had a fasciotomy wound spanning ~40cm x 15cm. On day 9 post-op, with the wound bed healthy and clean, we decided for wound closure and intramedullary nail (ILN) for the patient.

The first line of incision was made 5 cm from both edges of wound and ~5 mm incision piercing the superficial fascia were made along the whole length of wound. Each row of incision had a distance of 1 cm in between. Rows of incision were added until tension free closure of fasciotomy wound was achieved :4 rows superiorly and 3 rows inferiorly. After wound closure, an ILN was inserted.

Postoperatively, patient expressed satisfaction with the outcome of the surgery particularly appreciating that the contralateral limb was spared from harvesting of skin graft(SSG). Pain was also tolerable and he was able to ambulate day 2(D2) post-op without fear of graft migration or failure. He was discharged without complications on D2 post-op.



Figure 1: Pre-Closure Wound



Figure 2: Post-Op Wound

### CONCLUSION:

John Capo et al reports that with this method, one can gain about 3 mm of closure per row and that it can decrease wound tension by 34% per row. While there are many methods for wound closure post fasciotomy, pie crusting technique is an interesting way of soft tissue closure which can decrease hospital stay and operating time, allow early mobilization and reduce the need for SSG.

### REFERENCES:

1. John Capo et al., Pressure reducing skin pie-crusting in extremity trauma: An in-vitro biomechanical study and human case series, Injury, Volume 51, Issue 6,2020, Pages 1266-1270