

Cross Leg Sural Flap With External Fixator As Immobilization-Our Experience

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INTRODUCTION:

Soft tissue defects of distal third leg always been a reconstructive challenge. Although microsurgical free flap remains gold standard for lower limb reconstruction, the cross-leg flap is a useful reconstructive surgery in difficult situations, such as complex lower limb defects where free flap cannot be performed. In this case, we use reverse sural cross leg flap with cross leg external fixator as rigid immobilization to prevent flap avulsion and maximize neurovascular takeover.

REPORT:

This case report present a 18years old gentleman who had trauma sustained compound fracture distal third right tibia and fibula (GA3C) with extreme soft tissue injury extending from lateral to medial distal leg with bone loss at anterior and medial cortex.. The fracture was first stabilized with temporary cross right ankle external fixator after PTA reconstruction with reverse saphenous vein graft and soft tissue

coverage with muscle flap. In view of patient had compromised vascularity of the leg with adjacent unhealthy tissue during second look debridement, no ipsilateral regional or free flap was possible. Tibia fracture was later on immobilize with expert tibia nail. Medially based soft tissue coverage with reverse sural cross leg flap and SSG of bilateral lower limb was done for covering the exposed tibia.

Figure 1:Soft tissue defect with exposed Tibia



Figure 2: Cross-Leg flap with external fixator



Figure 3: Clinical photograph of healed wound



Flap division, flap inset and closure of donor site was done a month later.

Post operatively, it was complicated with SSI which was completely resolved after a course of antibiotics. Lower extremity range of motion able to restored fully and successful soft tissue coverage achieved.

CONCLUSION:

The cross leg reverse sural flap with rigid immobilization using external fixator is a reliable alternative method of reconstructive surgery in certain extensive soft tissue injury

REFERENCES:

1. Wettstein R,Schurch R,Banic A,et al.Review of 197 consecutive freeflap in lower extremity. Journal of Plastic,Reconstructive and Aesthetic Surgery 2008;61(7):772-6