

## Early Perforator Based Flaps For Severe Lower Limb Soft Tissue Defect Reconstruction

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### INTRODUCTION:

Early bone coverage with a perforator-based flap in severe soft tissue injury of the lower limb due to trauma or infection is beneficial in preventing complications of bone necrosis and osteomyelitis. It allows excellent wound healing, negating the need for bone resection and transport with Ilizarov External Fixator.

### MATERIALS & METHODS:

In 2017, Five patients with severe soft tissue injury of the leg (3 open fractures of tibia and fibula Gustilo grade IIIB and 2 infective haematoma over the shin due to trauma) were managed within 24-48 hours of injury, thoroughly debriding the wound and a peroneal perforator-based flaps was preformed

### RESULTS:

All patients were examined for wound healing, successful uptake rate of the flaps and patients functional assessment was done with a Short Form Musculoskeletal Functional Assessment (SMFA) questionnaire. All 5 patients showed good wound healing, successful uptake of flaps. Functional index (SMFA) of 32% and a Bothersome index (SMFA) of 25 % indicating good function of the injured limb.

### DISCUSSIONS:

Early surgical intervention of a severe soft tissue injury of the lower limbs with a thorough debridement and a perforator-based flap provide good wound healing and successful flap uptake avoid the complications of bone necrosis or osteomyelitis requiring a bone resection and transport with an Ilizarov External Fixator thus decreasing cost, revision surgeries, patient immobility time and good limb function.



Figure 1: Pre-op



Figure 2: Post-op



Figure 3: Follow-up

### CONCLUSION:

The peroneal perforator-based flaps is an appropriate choice to repair severe soft tissue injury to the lower limb negating the need for further surgical intervention associated with the complications of such severe soft tissue injury.

### REFERENCES:

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2. Lifeng Shen et al. Peroneal perforator pedicle propeller flap for lower leg soft tissue defect reconstruction: Clinical applications and treatment of venous congestion. *Journal of Internal Medical Research*. 2017 Jun; 45(3): 1074–1089.