

GASTROCNEMIUS MUSCLE FLAP FOR MIDDLE THIRD LEG DEFECTS: A DISTRICT HOSPITAL EXPERIENCE

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Introduction: Classically, the gastrocnemius flap is used to provide cover for upper third of tibia. Severe injuries of the middle third of the tibia has always been difficult to cover. Thus, we are reporting our experience in managing an open fracture of tibia fibula (Gustilo 3C) with middle third tissue and bone defect in a resource-limited district hospital.

Discussion: This is a case of 17-year-old gentleman who presented with an open fracture of left tibia and fibula secondary to road traffic accident. The wound measured 20x15x10cm over the anterolateral aspect of left mid-shin. Peroneal muscle bundles were grossly lacerated, anterior tibia neurovascular branch was transected. Bone loss noted and radiograph shown comminuted fracture of mid-shaft left tibia and fibula. Most of the anterolateral soft tissue of the calf is crushed. He underwent wound debridement, bone shortening and acute docking via external fixation, anterior tibia artery and peroneal muscle repair. The soleus muscle is severely contused. We used an island advancement flap using the gastrocnemius belly to provide cover for the calf. Wound care and subsequent wound bed preparation were done during the hospitalization period. Remnant of exposed soft tissue was eventually closed with split skin grafting upon wound bed maturation. He was then put on monorail external fixation to address the limb shortening.

Conclusion: Middle third tibia defects have always posed a challenge in providing tissue cover via simple flaps. Utilizing the gastrocnemius via island flaps provide a feasible and relatively simple solution to the above problem with good outcome.