

A Successful Avascularized Fibula Graft To Infected Open Femur Fracture: A Case Report

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INTRODUCTION:

Open femur fracture can be devastating and have a higher risk for complications-especially infections-and can lead to bone defect. Ilizarov external fixation with devascularized bone graft can be consider in case of complicated open femur fracture with large bone defect.

REPORT:

A case of 14 year-old boy, who was riding a motorcycle, was hit by another motorcycle in a high-impact road traffic accident. On examination, there was deformity and bleeding of the right femur. X-ray of right femur showed fracture of neck and comminuted fracture of distal 3rd femur.

Patient underwent screw fixation neck of right femur and right cross-knee external fixation was done for open fracture distal 3rd right femur (Gustillo IIIa). However, it was complicated with infection which need second debridement. Unfortunately, patient develop osteomyelitic changes over the fracture site of distal 3rd femur. Patient underwent wound debridement and right cross-knee Ilizarov external fixation with intra-operative findings showed 7cm bone defect.

Post surgery, patient was started on long duration of antibiotic for the treatment of osteomyelitis. Fibular bone graft was considered as the bone defect was more than 6cm. Once wound condition and infection parameters permissible in duration of 2 months, patient underwent surgery of his right fibula devascularized bone graft were grafted to the right femur. Subsequently, patient were discharge with dressing and antibiotic. Infection parameters were monitored. Serial x-ray of right femur were done and compared. Latest x-ray showed formation of callus over bone graft site and wound were well heal. Patient was allowed

for partial weight bearing ambulation with his right femur on Ilizarov frame.



CONCLUSION:

Devascularized fibular grafting has been reported in many literature for use in the salvage of massive bony defects and can be consider together with Ilizarov external fixation.

REFERENCES:

1. The reconstruction of defects in the femoral shaft with vascularized transfers of fibular bone. Jupiter JB et al. Bone Joint Surg Am. 1987 Mar; 69(3):365-74.