

Reconstruction of Osteomyelitis Bone Defect with Nonvascularised Fibular Strut Graft - A Case Report

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INTRODUCTION:

Osteomyelitis as one of the common post trauma complications remains a serious challenge to modern day medicine despite progress in antibiotics and surgical techniques. [1] We are reporting a case of post traumatic osteomyelitis post open reduction internal fixation over distal end femur which undergone two-stage surgical intervention.

REPORT:

A 73-year-old female with underlying diabetes and congestive heart failure and history of trauma over right femur in 2020 presented with complaint of sinus discharge and pain over her right knee. Radiographs showed non-union and loosening of screws with osteomyelitis changes.

During the first stage, surgical debridement and unhealthy bone resection with antibiotic cement insertion was performed. Two grams of vancomycin was mixed with PMMA cement as antibiotic spacer. Cross knee external fixator was applied.

Post op 3 weeks, the inflammatory markers normalised. Right nonvascularised fibular strut graft and augmentation with right tibial autologous cancellous bone graft was performed. Ipsilateral 10cm of non vascularised fibular strut graft was harvested and placed intramedullary in between the bone defect. Bony fixation was done with distal femoral locking plate and screws.

Two weeks post-op, wound clean and healing, common peroneal nerve intact, she was started on physiotherapy for range of movement over right knee and muscle strengthening exercise. 2 months post-op, evidence of union was seen and initiated on progressive weight-bearing. [2]



Figure 1: Right knee xrays upon presentation.



Figure 2: Intraoperative picture and postop Xrays

CONCLUSION:

Fracture related infection remains as one of the most common complications in trauma management. Bone defect of 5-10cm still can be filled with nonvascularised fibula strut graft with good outcome.

REFERENCES:

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