

FEMORAL-TIBIAL FUSION WITH LENGTHENING: A SALVAGE METHOD FOR FAILED KNEE ARTHRODESIS

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Introduction: Knee arthrodesis is a step before amputation following failed salvage of TKA, trauma with massive bone loss or fulminant osteomyelitis. Success rates range from 81 to 90% with a complication rate cited as high as 40%¹. We describe a case of direct fusion of the femur shaft to the proximal tibia after failed prior knee fusion. An 18 year old gentleman sustained open segmental distal femur with bone loss and proximal third tibia fracture following a RTA 3 years ago. He was treated with a circular fixator which aimed for knee arthrodesis in another centre. Upon presentation to us, he had a LLD of 11.5cm and an unfused knee. We resected the femoral end to a flat interphase and denuded the tibial plateau cartilage. The LRS (Orthofix) was applied with a multiplanar clamp on the tibia to restore the mechanical axis and compression at the arthrodesis site. A corticotomy was then done for femoral lengthening.

Discussion: Partial weight bearing was started upon discharge and lengthening began at day 10. At 10 months, fusion was achieved and the regenerate of the femur consolidated. We lengthened up to 10cm only to allow ground clearance during walking.

Conclusion: Knee arthrodesis has an acceptable success rate. However, failed cases are seen and salvage methods become more difficult as there is a large bone defect after multiple surgeries. Revision surgery should ideally be performed in a centre with expertise.