

Case Series of Tibial Tubercle Osteotomy to Address Complex Articular Distal Femur Fractures

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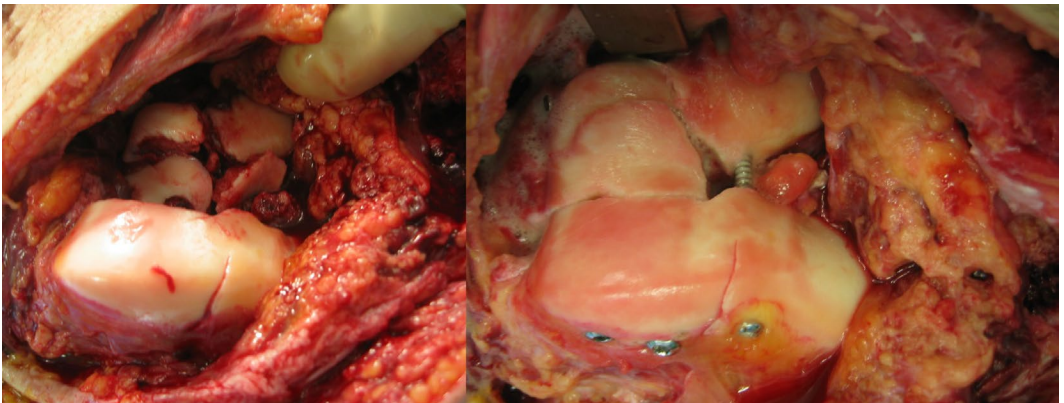
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Purpose: Articular distal femur fractures demand adequate exposure for anatomic reconstruction and respect for the soft tissues. Lateral subvastus with tibial tubercle osteotomy approach to the distal femur has demonstrated ability to more than double surgical exposure of the articular surface through a single incision compared to traditional parapatellar exposures. To our knowledge this approach has only been described twice in the trauma literature and the largest case series to date is on 3 patients. We present a case series of 4 patients who underwent fixation with this approach and provide 3 indications for this technique: (1) extensive trochlear comminution requiring extensive exposure for articular reconstruction, (2) patella baja complicating traditional parapatellar exposure, and (3) articular trochlear fragments without condylar continuity. We provide intraoperative images demonstrating each of these indications and expand upon techniques previously described.

Methods: Four patients underwent tibial tubercle osteotomy for fixation of complex intra-articular distal femur fracture by the same surgeon. Patients were followed in the clinic for radiographic signs of union and clinical function.

Results: Of the 4 patients, 2 went on to radiographic union by the 6-month mark, the third went on to metaphyseal aseptic nonunion and ultimately went on to union after revision surgery, the fourth has yet to reach 6-month mark but is expected to heal. There were no wound complications or nonunions of the osteotomy site.

Conclusion: Tibial tubercle osteotomy approach to the distal femur has utility for certain complex fractures and can be safely executed with proper technique.



The FDA has stated that it is the responsibility of the physician to determine the FDA clearance status of each drug or medical device they wish to use in clinical practice.