

## COMBINED HIGH TIBIAL OSTEOTOMY AND ANTERIOR CRUCIATE LIGAMENT RECONSTRUCTION FOLLOWING FEMORAL FRACTURES. A CASE SERIES

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**Introduction:** For young, physically active patients, high tibial osteotomy and anterior cruciate ligament reconstruction in addressing tibiofemoral with concomitant anterior cruciate ligament injury has been a salvage procedure. The optimal surgical procedure to treat anterior cruciate ligament complete tear in complex femur fractures has never been addressed.

**Discussion:** We reviewed two patients who had high tibial osteotomy (HTO) and anterior cruciate ligament (ACL) reconstruction done in complex femur fractures. Both cases presented with chronic knee pain that failed conservative management. The first patient, a 16 year old boy presented with a history of left anterior cruciate ligament (ACL) deficiency, left medial compartment secondary knee osteoarthritis and varus deformity of 10o presented with an alleged fall after he felt his knee gave away. He had a history of sustaining left intraarticular femoral condyle fracture which was treated conservatively. The second patient a 38-year old male presented with a history of chronic right knee pain for 7 years which significantly worsen recently. He had a history of sustaining distal femoral fracture which was treated with open reduction and internal fixation. Currently, he presented with ACL deficiency, and a significant varus deformity of 150 . Post operatively, range of motion of both patients were from 0 degree in extension to 135 degree in flexion. Both patients claimed that they were pain free post-operatively and their quality of life had improved. Data on reported measurement properties were extracted and the quality of the studies appraised according to the Tegner Lysholm Knee Score pre and post-operatively.

**Conclusion:** Combined high tibial osteotomy and ACL reconstruction should be considered as an option to treat young patients with ACL deficiency, medial compartment knee osteoarthritis and varus deformity in healed complex femoral fractures.