

REHABILITATION CONSIDERATIONS FOR AN UNCOMMON INJURY OF THE KNEE: A CASE REPORT

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ABSTRACT

Background and Purpose: Chronic instability of the proximal tibiofibular joint (PTFJ) is an uncommon condition that accounts for <1% of knee injuries. The mechanism of injury is a high-velocity twisting motion on a flexed knee. Surgical management is controversial due to complications; however, surgeons are now utilizing ligament reconstruction to restore stability. There is a paucity of information in the literature regarding postoperative care and rehabilitation after PTFJ reconstruction. The purpose of this case report is to describe the post-surgical rehabilitation for an adolescent athlete following PTFJ ligament reconstruction using a modified anterior cruciate ligament reconstruction (ACL) post-operative rehabilitation protocol.

Case Description: A 15-year-old female soccer player reported left ankle and knee pain for one year after a contact injury and landing on a hyperflexed knee during a soccer game. The surgeon diagnosed the subject with chronic PTFJ instability and performed reconstruction using an allograft ligament and calcium phosphate bone graft. The subject presented to physical therapy three weeks post-operatively with complete resolution of ankle pain and mild knee pain. The subject's goal was to return to golf as she reported apprehension with a potential return to soccer. After consulting with the surgeon and because the subject was only allowed to advance weight bearing status by 20 pounds each week (to protect the graft site), the treating therapists progressed the subject using a modified ACL protocol as there is no documented post-operative rehabilitation protocol to treat patients after a PTFJ reconstruction.

Outcomes: Outcome measures for this subject included the patient specific functional scale (PSFS), verbal numeric pain rating scale and ability to participate in golf. The initial PSFS score was 4/30 (activities included walking, jogging and golf) and the subject's reported pain level was 3/10. Three months after surgery the subject demonstrated significant improvement to 30/30 on the PSFS, 0/10 pain, and had progressed to participation in both golf and jogging.

Discussion: The modified ACL protocol was effective in safely rehabilitating this adolescent athlete following a PTFJ reconstruction. This subject demonstrated some yellow flags which may have slowed her rehabilitation progression. Use of a modified ACL reconstruction protocol served as a guideline for the rehabilitation of this rare condition. Additional research is necessary to establish evidence-based guidelines for treatment of PTFJ reconstruction.

Level of Evidence: Level 4

Key Words: Lateral knee pain, proximal tibio-fibular joint reconstruction, tibiofibular joint instability

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