revision multi-ligament reconstruction, and (2) assess clinical outcomes of this algorithm at a minimum of two years after surgery.
Methods: We identified patients from our prospective multi-ligament database that underwent revision of multi-ligament reconstruction between 1992-2013 for persistent instability after failed primary reconstruction and/or repair. Patient demographic information (age, gender, BMI), injury description (mechanism of injury, neurovascular status, specific ligaments injured, associated chondral or meniscal injury), surgical technique (repair vs. reconstruction, staged vs. non-staged, concomitant procedures), mechanism of failure, as well as IKDC and Lysholm scores were obtained.
Results: The cohort consisted of 19 patients (6 female, 13 male), with an average age of 31±12 years (range 17-59 years) who underwent revision of multi-ligament knee reconstruction with a mean follow-up of 47±27 months. Thirteen (70%) patients underwent at least one additional procedure (mean 1.2, range 0-4) to correct other underlying pathology in preparation for revision reconstruction. Five (26%) patients underwent staged revisions with bone grafting of the tibial/femoral tunnels. Two (11%) patients underwent staged osteotomies, one distal femoral and one proximal tibial. One (5%) patient underwent concomitant meniscal transplant at time of revision. For revision surgeries, 17 (89%) underwent reconstruction only, and 2 (11%) underwent combined repair/reconstruction. Average IKDC and Lysholm scores were 66±26 and 71±23 respectively. High-energy mechanism of injury (p=0.04) and increased age at primary surgery (p=0.03) are associated with lower Lysholm scores.
Conclusion: This algorithm offers a systematic approach for treatment of failed multi-ligament knee reconstruction. Revision multi-ligament surgery can achieve modest outcomes in selected patients Non-modifiable risk factors associated with worse outcome include increased patient age and a high-energy injury.

Preoperative Pain Perceptions Are Predictive of Physical Therapy Performance, Healthcare Resource Utilization, and Postoperative Symptoms After Anterior Cruciate Ligament Reconstruction

SS-20
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Introduction: Certain psychological traits including anxiety or fear of pain, individual differences in pain coping strategies, and severe subjective pain prior to surgery can adversely affect outcomes after elective orthopaedic surgery. This study investigated the predictive effect of preoperative pain perceptions phyiscal therapy performance, healthcare resource utilization, and persistent symptoms after anterior cruciate ligament (ACL) reconstruction.
Methods: A total of 72 patients who underwent ACL reconstruction completed a battery of preoperative self-administered survey instruments related to subjective pain, subjective knee symptoms (IKDC), anxiety related to pain (PCS), fear of reinjury or pain from movement (TSK and FABQ), pain coping methods (brief COPE, and PCM). The association between these preoperative scores and number of post-operative pain scripts, office visits, office telephone encounters, re-injury and return to sport within 12 months as well as physical therapist documented effort were analyzed.
Results: Increased preoperative pain scores were predictive of a higher requested number of post-operative pain scripts (R-square 0.10, p=0.007), pain-related telephone encounters in the first month (p=0.002) and decreased return to sport (p=0.04). High pain catastrophizing scores (PCS) and kinesiophobia scoreswere associated with poor perceived effort in rehabilitation (p=0.002 and p=0.04), decreased rates of return to sport (p=0.001 and p=0.03), and increased re-injury rates (p=0.04 and p=0.02). High IKDC scores were predictive of post-operative complications (p= 0.01), total number of pain scripts (p=0.02), and number of telephone encounters in the first year (p=0.005). Score on the PCM emotion focused items were predictive of total number of pain scrips filled (p= 0.03) and number of telephone encounters in the first year (p= 0.03).
Conclusion: Preoperative pain perceptions are significantly associated with effort in physical therapy, and functional outcomes. Maladaptive pain perceptions appear to be predictive of higher healthcare resource utilization post-operatively as well as higher re-injury rates.

Return to Sport after Tibial Tubercle Osteotomy for Patellofemoral Pain and Osteoarthritis

SS-21
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Introduction: Anteromedialization (AMZ) tibial tubercle osteotomy (TTO) is an effective treatment for moderate patellofemoral osteoarthritis, patellofemoral compression syndrome, and coronal malalignment in patellofemoral instability. There is limited literature regarding its capacity to reliably return patients to sports. The objective was to determine the rate of return to sport after AMZ TTO for patellofemoral pain or arthritis.
Methods: This was a retrospective review of consecutive patients who underwent unilateral or bilateral AMZ TTO for patellofemoral pain or arthritis. All patients had minimum 1 year follow up. Final follow up consisted of an additional patient-reported questionnaire with questions regarding physical fitness and sporting activities and Kujala score.