fold more likely to experience graft failure than those in the ACLR + ALLR group (Hazard Ratio (HR) = 3.554 [1.744;7.243], p = 0.0005). Patients aged less than 20 years were at particularly high risk of graft rupture (HR = 5.65 [1.834;17.241], p = 0.0002) and further analysis of this subgroup demonstrated that isolated ACLR with BPTB also conferred a > 3 fold increased risk of graft rupture in young patients when compared to ACLR + ALLR. Multivariate analysis did not identify any other significant risk factors for graft rupture. Overall, there was a significantly higher reoperation rate following isolated ACLR (BPTB group 20.5%, ACLR + ALLR group 8.9%, p < 0.0001). This finding was accounted for by significantly higher rates of graft rupture (9.9% vs 3.5%, p < 0.0001), cyclops syndrome (3.3% vs 1.5%, p < 0.0001), and secondary meniscectomy (5% vs 2.9%) in the BPTB group. Discussion and Conclusion: Patients who underwent isolated ACLR with BPTB autografts experienced significantly worse ACL graft survivorship and overall re-operation free survivorship when compared to those who underwent combined ACLR + ALLR with hamstring autografts. The risk of graft rupture was more than 3-fold higher in patients who underwent isolated ACLR using BPTB.

Category: Knee - Lateral Extraarticular Tenodesis

The Addition Of Either An Anterolateral Ligament Reconstruction or An Iliotibial Band Tenodesis Is Associated With A Lower Failure Rate After Revision Anterior Cruciate Ligament Reconstruction: A Retrospective Comparative Trial

Abstract ID# 21835

All Authors:
Camilo P. Helito MD, PhD, Prof BRAZIL
Marcel F. Sobrado MD BRAZIL
Vitor Barion Castro De Padua MD BRAZIL
Tales Molica Guimaraes MD BRAZIL
Andre Giardino Moreira Da Silva MD BRAZIL
Marcelo B. Bonadio MD BRAZIL
José R. Pécora Prof. BRAZIL
Riccardo Gomes Gobbi MD, PhD BRAZIL
Gilberto L. Camanho MD BRAZIL

Summary:
Patients who underwent revision ACL reconstruction with a laterally based augmentation procedure had a lower failure rate than patients who underwent isolated revision ACL reconstruction

Data:
Purpose: To compare the failure rate in patients who underwent revision anterior cruciate ligament (ACL) reconstruction alone or associated with an extra-articular procedure. Secondary objectives were to compare ACL laxity, patient-reported outcome measures, and complication rates in these patients and, subsequently, to compare the outcomes of patients who underwent revision ACL reconstruction associated with anatomical anterolateral ligament (ALL) reconstruction or lateral extra-articular tenodesis (LET). Methods: This was a retrospective comparative study. Patients were classified into two groups, according to whether (Group 2) or not (Group 1) an extra-articular reconstruction was performed. Patients who underwent an extra-articular procedure were further divided into ALL reconstruction (Group 2A) and LET (Group 2B). Baseline demographic variables, operative data and post-operative data were evaluated. Results: The groups with (86 patients) and without (88 patients) an associated extra-articular reconstruction had similar preoperative data. Group 2 had a lower failure rate (4.6%vs.14.7%;p=0.038), better KT-1000, better pivot shift, and better Lysholm. There was no difference regarding complications, except more lateral pain in Group 2. Regarding the groups who underwent ALL reconstruction (41 patients) and LET (46 patients), Group 2A showed better Lysholm scores. Both groups had similar failure rates and complications. Conclusion: Patients who underwent revision ACL reconstruction with a laterally based augmentation procedure had a lower failure rate than patients who underwent isolated revision ACL reconstruction. KT-1000 and pivot shift examination were also significantly better when a lateral augmentation was performed. Complications were similar except for an increase in lateral pain in the augmented group. No clinically important differences were found when comparing the LET group to the ALL group other than a statistical improvement in the Lysholm functional scale, likely not clinically meaningful, favoring the ALL group and an increased duration of post-operative lateral pain in the LET group.

Category: Knee - Lateral Extraarticular Tenodesis

Repair Of the ACL and Anterolateral Structures Versus Reconstruction and Lateral Extra-Articular Tenodesis: A Prospective Comparative Study of Acute ACL-Injured Knees

Abstract ID# 22218

All Authors:
Andrea Ferretti Prof. ITALY
Adnan Saithna Prof., MD, FRCS UNITED STATES
Alessandro Carrozzo MD ITALY
Fabio Marzilli M.D. ITALY
Daniele Mazza MD ITALY
Alessandro Annibaldi MD ITALY
Francesca Latini MD ITALY
Eduardo Monaco MD ITALY

Summary:
The results of our study show that in selected patients, superimposable results can be obtained between repair of ACL and anterolateral structures and reconstruction of ACL and LET.

Data:
Background: Lateral extra-articular procedures (LEAPs) have been effective in reducing graft rupture rates in ACL reconstruction but the evidence supporting their role in ACL repair is sparse. Purpose: To compare clinical and radiological outcomes of ACL reconstruction and lateral extra-articular tenodesis (ACLR + LET) against combined repair of the ACL and anterolateral structures (ACLR + AL repair). The hypothesis was that patients undergoing ACL + AL repair would have non-inferior clinical and radiological outcomes with respect to IKDC scores, knee laxity parameters, and MRI characteristics. Furthermore, it was hypothesized that patients undergoing repair would have significantly better FJS-12 scores and shorter times to return to the pre-injury level of sport, without any increase in the rate of ipsilateral second ACL injury. Study Design: Prospective comparative non-randomized study Methods: Consecutive patients presenting with acute ACL tear were considered for study eligibility. ACLR + LET was only performed when intra-operative tear characteristics contra-indicated ACL repair. Patient reported outcome measures (PROMS), re-injury rates, anteroposterior side-to-side laxity difference and MRI characteristics were reported at a minimum follow-up of two years Results: One hundred patients (47 ACLR + LET, 53 ACLR + AL Repair) with a mean follow-up of 25.2 months (range, 24-31) were enrolled and underwent surgery within 15 days of injury. At final follow up differences between groups with respect to the IKDC Score, anteroposterior side-to-side laxity difference, and signal-to-noise quotient (SNQ) did not exceed non-inferiority thresholds. ACL + AL repair was associated with shorter time to return to the pre-injury level of sport (ACLR + LET, mean, 9.5 months; ACL + AL repair, mean, 6.4 months; p<0.001), better FJS-12 scores (ACLR + LET, mean, 97.4; ACL + AL repair, mean, 91.4 months; p=0.04), and a higher proportion of patients achieving PASS for KOOS subdomains (symptoms, 88.2% vs 67.4%, p<0.005; sport and recreational function, 94.1% vs 67.4%, p<0.001; quality of life, 92.2% vs 73.9%, p<0.01). There were no significant differences between groups with respect to ipsilateral second ACL injury rates (ACLR + AL repair group 3.8% and ACLR + LET group, 2.1% (n=1), p=0.63). Conclusion: ACL + AL repair yielded clinical outcomes that were non-inferior (or not significantly different) to ACLR + LET with respect to IKDC Subjective, ACL RSI, Tegner and Lysholm scores, knee laxity parameters, graft maturity and rates of failure and re-operation. However, there were significant advantages of ACL + AL repair including shorter duration of time to return to the pre-injury level of sport, better FJS-12 scores, and a higher proportion of patients achieving PASS for KOOS subdomains (symptoms, sport and recreational function, quality of life).

Category: Knee - Lateral Extraarticular Tenodesis

Combined Lateral Extra-Articular Tenodesis or Combined Anterolateral Ligament Reconstruction and Anterior Cruciate Ligament Reconstruction Improves Outcomes Compared to Isolated Reconstruction for Anterior Cruciate Ligament Tear: A Network Meta-Analysis

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All Authors:
Seong-Hwan Kim MD,Ph.D, MStat KOREA, REPUBLIC OF
Yong-Beom Park MD, PhD KOREA, REPUBLIC OF