**B0134**

**Modified arthroscopic latarjet procedure with paired-endobutton: A safe, rigid, and reproducible technique with early results**

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**Purpose**: To evaluate the stability, safety and reproducibility of a novel modified arthroscopic Latarjet technique, and to report the early clinical and radiologic results.
**Methods**: 15 consecutive patients with glenoid bone loss and capsular deficiency were treated with this modified Latarjet technique; 3 patients had a failed arthroscopic capsulolabral repair. After coracoid fragment was osteotomized by a 25mm skin incision, the fragment was passed with the conjoined tendon through the subscapularis muscle, and fixed in the standing position with a paired Endobutton guided by a double barreled aimer on the abraded glenoid neck arthroscopically. The intraoperative and postoperative complications were recorded. All patients were reviewed and had postoperative computed tomography scans.
**Results**: The procedure was performed arthroscopically in all cases except the coracoid harvest, no patient was conversed to open surgery. The axillary nerve was identified in all cases, and no neurologic injuries were observed. No patient had any recurrence of instability at the most recent follow-up (3-6 months, mean, 3.5 months). The mean Rowe score was 90 ± 15.4. The bone block was subequatorial in all cases; All of the cases had no bone graft too lateral (>2mm) or too medial (>5 mm). No bone block fracture or migration.
**Conclusions**: The modified paired Endobutton arthroscopic Latarjet procedure is rigid, safe, and reproducible. This procedure allows restoration of shoulder stability in patients with glenoid bone loss and capsular deficiency, as well as in the case of failed capsulolabral repair. Arthroscopy offers the advantage of providing adequate visualization of both the glenohumeral joint and the anterior neck of the scapula, allowing accurate placement of the bone block and screw. The usage of a double barreled aimer, and portal shift techniques were the key part of this procedure.
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**B0141**

**Arthroseopic reduction and using multy suture anchors to fix tibial intercondylar eminence avulsion fractures**

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**Objective**: To investigate the procedure and effectiveness of arthroseopic reduction and using multy suture anchors to fix tibial intercondylar eminence avulsion fractures.
**Methods**: From January 2010 to June 2013, 24 patients with tibial intercondylar eminence avulsion fractures were treated with arthroseopic reduction and using 2 or 3 suture anchors to suture the fractures. According to Meyers-McKeever classification,6 cases of 26 were rated as type II,8 as type III, and 10 as type IV fractures. Anterior drawer test and Lachman test of all patients were positive. Lysholm and IKDC 2000 scores were (47.5 ± 3.7) and (52.4 ± 5.3) respectively.
**Results**: 23 patients were followed up for an average of 28.5 months (8-48 months). The X-ray films showed good reduction and healing of fracture 3 months after operation. No anchor suture were pulled out or refracture happened in any patients. Anterior drawer test and Lachman test of all patients were negative. At the last follow-up, the range of knee motion was 0°-140°without pain. The mean Lysholm scores was improved to (88.6 ± 3.2) postoperatively, the IKDC 2000 score improved to (91.8 ± 5.7) postoperatively, both were statistically significant (t1 = 22.100, t2 = 20.700, P = 0.000).
**Conclusion**: Arthroscopic treatment using multy suture anchors to fix tibial intercondylar eminence avulsion fractures was an minimally invasive、effective procedure, which can fix the fractures firmly and rehabilitate early, especially suitable for the type Mevers-McKeever IV and the tiny fractures.
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**B0143**

**Comparison of the bone plug and bone bridge technique for lateral meniscus allograft transplantation**

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**Background**: Studies have reported that for the meniscal allograft transplantation ("MAT"), the Bone Bridge method ("Bone Bridge") and the Bone Plug method ("Bone Plug") show better clinical improvements than simple soft tissue suture after meniscectomy in the knee. However, there are rare studies comparing the long-term postoperative outcomes between the Bone Plug and the Bone Bridge which are used for lateral MAT.
**Objective**: This study aims to compare the long-term clinical outcomes of Bone Plug and Bone Bridge in lateral MAT.
**Methods**: From January 2010 to July 2013, 30 postoperative lateral MAT patients were enrolled to check the follow-up outcomes. Among the 30 cases, 18 cases were under Bone Plug; 12 cases were under Bone Bridge. We use three methods to compare the long-term clinical outcomes, which are visual analog scale ("VAS"), Lysholm knee evaluation scale and Tegner activity scale. All patients underwent MRI examination in the final follow-up to observe the morphology and signal changes in the meniscus after MAT.
**Results**: All of the 30 patients were followed up for 24.3 ± 1.8 months (range, 21–27 months) after MAT. After 2 year, no patient was found to have meniscal mechanical symptoms, effusion, lateral joint line tenderness or a positive McMurray test. Their results in VAS, Lysholm knee evaluation scale and Tegner activity scale significantly improved after MAT for 2 year ($P<0.05$). MRI showed that the allograft menisci have satisfactory condition within 2 year post-operation period. There was no significant difference in the postoperative long-term outcomes between Bone Plug and Bone Bridge ($P>0.05$) in lateral MAT.
**Conclusion**: Clinical results of both MAT methods were satisfactory. But there was no significant difference in the postoperative long-term outcome between Bone Plug and Bone Bridge in lateral MAT.
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**B0149**

**Subacromial steroid injection is safe and effective to improve painful LOM after rotator cuff repair**

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**Background**: Painful limitation of motion (LOM) is a common situation during the recovery period after arthroscopic rotator cuff repair. Subacromial corticosteroid injection can be helpful to improve painful LOM, however, the concern exists regarding the adverse effect on the rotator cuff tendon healing.
**Materials and methods**: Among 410 patients who underwent arthroscopic rotator cuff repair between January 2012 and May 2014 and who were followed up for more than 6 months with functional and anatomical outcome (mean 12 months), 195 patients received a single subacromial corticosteroid injection for painful LOM at around the postoperative 12 weeks with the confirmation of cuff integrity using ultrasonography. We assessed the changes of range of motions (ROMs) over time, visual analogue scale (VAS) for pain, the Constant score, the American Shoulder and Elbow Surgeons (ASES) score and cuff integrity at least 6 months after surgery, and finally compared with control patients (n=215) who did not get injection.
**Results**: At the time of injection, all ROMs were significantly lower in the injection group compared to the control group. At postoperative 6 months, there were no statistical differences between two groups in terms of ROM, pain VAS and functional outcome scores (all $P>0.05$). There was no statistical difference in the healing failure rate between two groups (14.5% vs. 11.3%, $P=0.39$). No other complications were observed.
**Discussion and conclusion**: Subacromial corticosteroid injection can be an effective and safe method for painful LOM during the recovery period after arthroscopic rotator cuff repair without the concern of rotator cuff healing failure.
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**B0155**

**Combined medial patellofemoral ligament reconstruction and sulcus-deepening trochleoplasty for patellar dislocations with severe trochlear dysplasia**

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**Objective**: To evaluate the short-term clinical outcome of sulcus-deepening trochleoplasty in patellar dislocation with high-grade trochlear dysplasia.
**Methods**: From March 2011 to June 2012, we retrospectively recruited 24 consecutive patients. All patients underwent combined sulcus-deepening trochleoplasty and medial patellofemoral ligament reconstruction. All other combined surgeries (Elmslie-Trillat osteotomy, tibial tubercle distalization and lateral release) were indicated with quantified measurements. Pre- and postoperative physical examination, radiological measurements, Dejour classification and Kujala knee function, Lysholm score and Tegner activity scale were performed.
**Results**: All recruited patients were at an average age of 21.9 ± 6.3 years old (range, 16-37 years), for a average follow-up time of 30.1 months (24–40 months). At the final follow up, no J-signs and redislocations were identified. The congruence angle was significantly decreased from 33.5 ± 31.1° to 6.9 ± 9.8(P<0.05). The sulcus angle was corrected from 164 ± 37.2° to 131 ± 21.8(P<0.05). The postoperative distribution of Dejour classification was significantly reduced. The improvement of Kujala (from 56.2 ± 19.9 to 89.5 ± 23.5) and Lysholm score (from 40.0 ± 17.9 to 77.8 ± 14.6) were statistically significant. No significant difference was observed between pre- and post-operative Tegner score.
**Conclusion**: Sulcus-deepening trochleoplasty is an effective surgical treatment for patients of patellar dislocations with high-grade trochlear dysplasia. The minimum of 2-year follow-up study showed significant improvements of radiological measurements and short-term clinical results. Long-term follow-up study was needed for further evaluation.
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