

second FiberTape suture and the allograft are passed over the distal end of the resected clavicle. While the acromioclavicular joint is held reduced, the FiberTape sutures are tied to the plate and the allograft is tensioned until the plate is embedded against the clavicle. The tendinous end of the graft is secured to the superior surface of the clavicle with a bio-tenodesis screw.

Results: At one (n=3) to two years (n=9), eleven of the twelve patients were satisfied. There was one hardware complication, and one infection (secondary to patient non-compliance).

Conclusions: This arthroscopic approach allows the secure fixation of acromioclavicular joint dislocations with theoretically less morbidity of comparable open approaches. The addition of a semitendinosis graft to previously reported suture reconstruction concepts adds biologic fixation to the construct, thus providing long term stability to the reconstruction of the coracoclavicular ligamentous complex.

Arthroscopic Treatment of Acute Traumatic AC Joint Dislocation (SS-41). *Roderich Heikenfeld, MD, Rico Listringhaus, MD, Georgios Godolias, MD*

Purpose: The purpose of this study was to evaluate the results after arthroscopic treatment of traumatic AC joint dislocation using a Bosworth screw.

Methods: 18 Patients with acute AC Joint dislocation type Rockwood 3 were arthroscopically treated with temporary transfixation using a 7.0mm cannulated titanium screw of the clavicle to the coracoid process. The coracoid process is arthroscopically visualized and a drill guide for tibial anterior cruciate ligament positioning is used to exactly place the screw into the coracoid process. The screws were removed after 8 weeks. Patients were followed using a prospective study using the Constant Score after 3, 6, 12 and 24 months.

Results: 17 Patients were completely evaluated. One screw slipped out of the coracoid process 3 days after surgery requiring revision surgery. No screw breakage was observed. There were no other operation conditioned complications. Constant score showed a mean of 94,7 at last follow up. At follow up, no patient had a redislocation without weight bearing. With 10kg weight a mean clavicular elevation of 1,8mm was observed. All remaining patients were satisfied with the functional and cosmetic result.

Conclusions: There is some controversy about the surgical treatment of acute traumatic AC joint dislocation type Rockwood 3. Most open surgery techniques have the disadvantage of a poor cosmetic result or a difficult and dangerous hardware removal, because the

scar of the AC joint capsule that is supposed to stabilize the clavicle has to be opened. The Bosworth screw technique does not touch the AC joint at all, but the open procedure has poor cosmetic outcome. It is also important to use a large screw to ensure proper hardware stability to avoid hardware failure. Our technique might be an alternative for the operative treatment of acute AC joint instability, because it is safe and all anatomical structures remain intact in case revision surgery with i.e. arthroscopic AC joint resection and ligamentoplasty is necessary.

The “Medial Approach” for Arthroscopic Assisted Fixation of Lateral Tibial Plateau Fractures: Mid to Long Term Results (SS-42). *Bruce A. Levy, MD, Diego Herrera, MD, Peter MacDonald, MD, Peter Cole, MD*

Purpose: The purpose of this study is twofold: (1) to describe the indications for arthroscopic assisted fixation of lateral tibial plateau fractures based on the “cortical envelope”; and(2) to present the mid to long term outcomes of patients treated with arthroscopic assisted fixation and bone grafting from a medial metaphyseal window.

Methods: A retrospective review of a selected case series performed by a single surgeon of Schatzker Type II tibial plateau fractures treated with arthroscopic assisted reduction and percutaneous fixation was performed. All patients were followed using Rasmussen’s criteria for clinical and radiographic assessment.

Results: Sixteen patients (9 females, 7 males) were included in this study, with an average age of 44.8 years (range 32 to 78 years). Mean clinical and radiographic follow-up was 28 months (range 8 to 93 months). All patients achieved good-excellent results with mean clinical and radiographic Rasmussen scores of 29.5 and 17.5 respectively. At final follow-up average knee flexion was 141 degrees (range 125 to 150). All but one patient achieved full extension. Most common complication was painful hardware requiring removal in five patients. Three patients had minimal loss of reduction (2 to 4 mm), and only one patient developed post traumatic osteoarthritis, clinically asymptomatic at two-year follow-up.

Conclusions: Arthroscopic-assisted fixation and percutaneous pinning for lateral tibial plateau fractures utilizing the “Medial Approach” is an excellent treatment modality in carefully selected patients and fracture types. Understanding the concept of the “cortical envelope” will help guide the surgeon in selecting fracture patterns amenable to the technique.