

Complications of Loose Glenoid, Subscap Failure, Cuff Failure, and Humeral Fracture Tampa 2016

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Disclosures

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- Funds from CD sales are donated to the Fellowship.
- Also if everyone on earth listens to one song on Spotify I will be worth 1 Billion dollars Do your part



Loose Glenoid

- Important distinction is whether or not cuff is intact
- Aseptic vs Septic
- Cement Technique Peg vs Keeled Peg has lower lucent lines but if osteolysis is a problem off line pegs create non constrained defects.
- Rapid loosening of a pegged component is always septic
- Intact Cuff with loose glenoid can generally be treated with arthroscopic glenoid excision

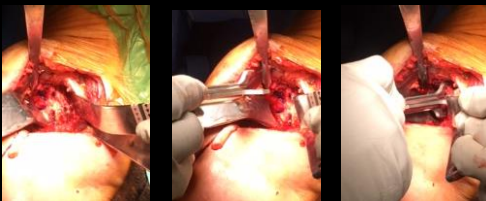
Results of Glenoid Component Revision

- Cheung et al. reviewed 68 shoulders in 66 patients revision TSA for glenoid component loosening . Thirty-three shoulders new glenoid component, and the remaining 35 shoulders underwent removal of the glenoid component and bone grafting without glenoid reimplantation. At 5 years, 91 % of primary glenoid reimplantation patients had satisfactory outcome without a reoperation, and 78 % of patients with glenoid bone grafting had survival free of operation.
- Boileau et al. retrospective multicenter review of 42 revision TSA for glenoid component loosening. The rate of recurrent glenoid loosening was 67 % with 17 % of patients requiring re-revision. The overall complication rate was 45 %

RTSA For Glenoid Loosening

- Walch and Boileau and colleagues reported on their results with 37 patients who underwent RTSA for aseptic glenoid loosening of an anatomic TSA associated with the presence of another complication including rotator cuff tears, subscapularis insufficiency, prosthetic instability, or glenoid bone deficiency. Overall, 86 % of patients were satisfied or very satisfied with the outcome. There was a 21 % reoperation rate secondary to complications.
- Take into consideration the age, activity level, and implant longevity when pursuing RTSA in the setting of a failed TSA secondary to glenoid loosening.

Prevention of Glenoid loosening Virtual Implant Positioning?



Smart Bone set up for IRI

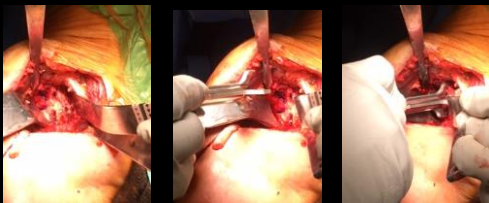


Prevention of Glenoid loosening Glenoid Preparation

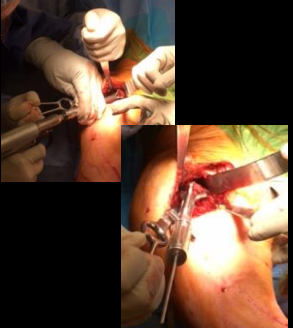
- The CT details the bony, but not cartilaginous anatomy, Therefore, curette the face of glenoid to remove any additional cartilage, but do not remove anterior osteophytes as they are important land marks




Marks made on curretted glenoid



- Lever back to keep posterior feet on the glenoid surface while drilling
- Note Small Darrach retractor has been substituted for the Fakuda




Weep Hole Gross

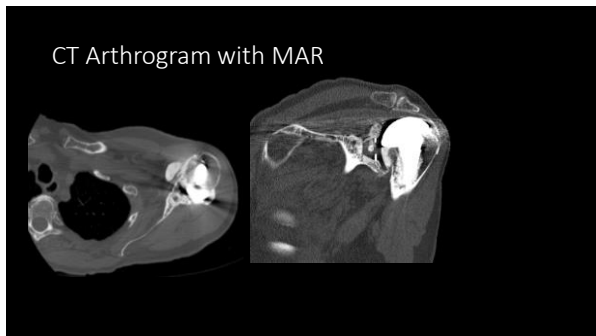


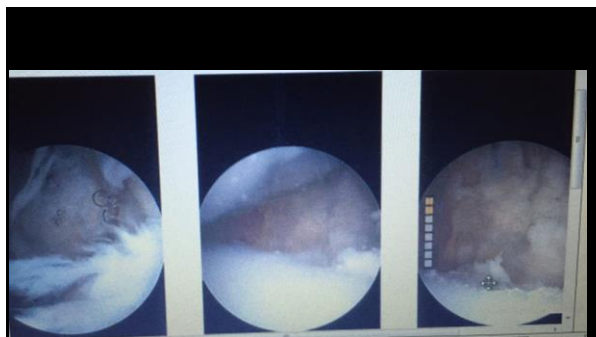
Subscapularis failure

- Steinmann 2010 ASES 50% Underdiagnosed Subscapularis failures. Bear hug test best clinical exam. Ultrasound study No major change in outcome or satisfaction rates. No instability

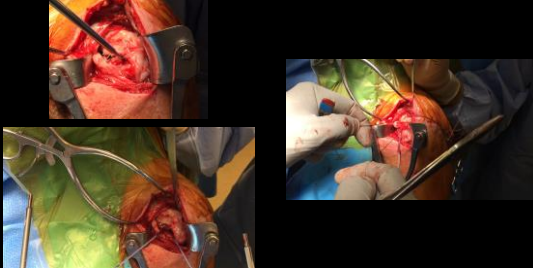








Subscapularis repair /Imbrication

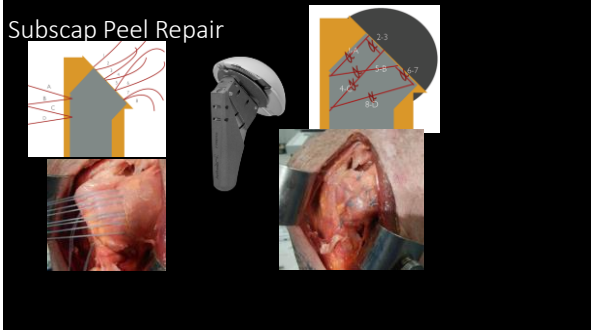


Suspension from Coracoid



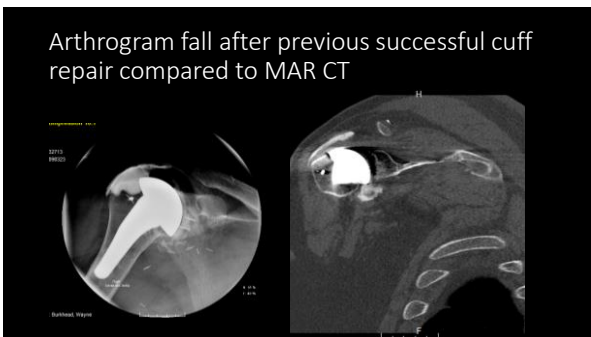
Prevention of Subscapularis Failure

- Lesser tuberosity Osteotomy with dual row repair
- Biomechanically matched repair when performing take down
- Figure of 8 sutures + bone tunnels for subscap tenotomy.
- Dual row repair for Subscap "Peel"
- Subscap sparing approaches Dual Horizontal windows seems attractive . However glenoid exposure is more difficult thus making component positioning harder. ?
- Will we increase glenoid loosening rates ?



Rotator cuff tear and failure after total shoulder arthroplasty

- The reported incidence of postoperative TSA rotator cuff tears is 1.3 % (32 of 2540 shoulders) . Subscapularis tears were the most common rotator cuff tear, comprising approximately 50 % of the rotator cuff tears in the cohort and are primarily due to overstuffing the joint, tendon insufficiency after multiple open surgeries or secondary to fatty infiltration or aggressive passive external rotation rehabilitation.
- Cofield 50% failure rate with re repair
- Keep tuberosity to head height almost flush supplement with ACDM



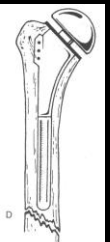
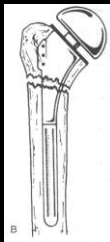
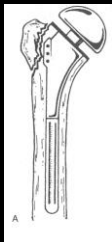
Texans Love a and it flush



Short stem Post Op



Humeral Fractures after Implantation Iannotti



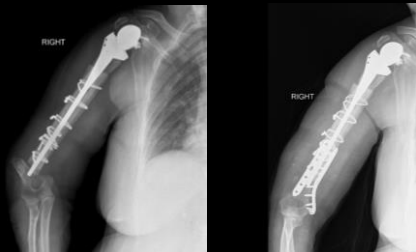
Wright and Cofield Classification

- low interobserver reliability. Anderson showed a high union rate (97%), but a high incidence of loose stems (50%) and reoperation rate (19%) indicated that periprosthetic fractures represent a difficult clinical problem
- Type A: fracture at the tip of the component with proximal extension
Treatment (well-fixed component)—revision arthroplasty
- *Treatment (loose component)*—revision arthroplasty, with allograft strut and internal fixation
- Type B: fracture at the tip of the component with no extension
Treatment (well-fixed component)—trial of nonoperative treatment with brace is reasonable, and if no evidence of healing after 3 months, then internal fixation with cerclage supplementation and allograft versus autograft strut graft
- *Treatment (loose component)*—revision arthroplasty with long cemented stem bypassing the fracture, plus or minus allograft or autograft strut with internal fixation
- Type C: fracture at the tip of the component with distal extension
Treatment (well-fixed component)—nonoperative treatment with functional bracing if acceptable closed reduction can be maintained
- *Treatment (loose component)*—revision arthroplasty with long stem component bypassing the fracture, plus or minus cortical strut graft with internal fixation

humeral fracture prevention starts with careful Patient selection.



And Fall



Then Die



74 y/o 15 years post op cuff repair with 5 year History of Parkinsons. Multiple falls now with pseudo paralysis ER lag. Multiple injections over a 2 year period with no improvement. Promises to use walker post op.

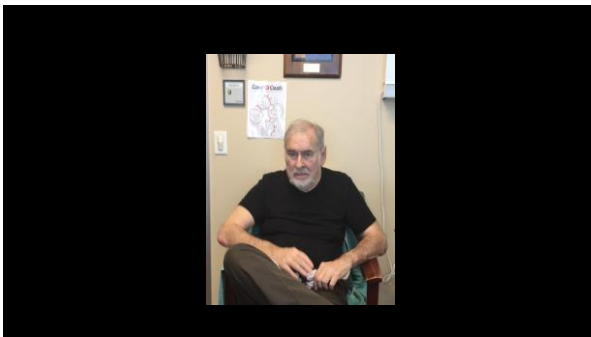


Reverse Shoulder Arthroplasty 155 cup used to improve stability during weight bearing Non displaced episiotomy type split proximal humerus treated with Fiberwire Cerclage









THANK YOU



WHATSOEVER THY HAND FINDETH TO DO
DO IT WITH THY MIGHT

And buy some music
