CASE:
21 year old male junior’s hockey player
Traumatic dislocation checking into boards
Right dominant shoulder
Surgery for Bankart repair
Uncomplicated surgery
12 weeks of standard rehabilitation

CAUSES OF HYPOMOBILITY FOLLOWING STABILIZATION SURGERY:
Over tension of capsule
Excessive scar formation
Lengthy immobilization
Poorly designed rehabilitation protocol
Patient non-compliance

SURGICAL CONTRIBUTION TO MOTION LOSS
Open versus Arthroscopic
What is ideal procedure?

APPROPRIATE TREATMENT
Immobilization
ROM milestones
PROM/AROM
Joint mobilization
Early communication with physician
CASE PRESENTATION;  SHOULDER ARTHROPLASTY IN THE YOUNG ACTIVE PATIENT

Overview / Introduction:
Patient is a 46 year old right hand dominant male tennis player who presents following shoulder hemi-arthroplasty and has undergone rehabilitation following a post-operative protocol. He presents with shoulder range of motion and strength deficiencies at 12 weeks post surgery and wishes to progress to functional activities and an interval sport return program.

I. Incidence of Osteoarthritis in the Younger Patient Population
   a. Capsulorraphy arthropathy – how does this affect many patients?
   b. Technique overview for humeral resurfacing / hemiarthroplasty
   c. Initial Rehabilitation Guidelines / Markers / Protocol

II. Evaluation of Patient at 12 weeks post-surgery
   a. Tests to include
   b. Key indicators for progression to functional activity
      i. Strength testing
      ii. ROM testing / assessment
      iii. Outcome measures
   c. Research on humeral resurfacing and outcomes
   d. Recommendations on Return to Sport following Shoulder Arthroplasty

III. Key Rehabilitation Concepts – Shoulder Arthroplasty
   a. Subscapularis precautions / ROM progression
i. Evolution of a protocol based on research outcomes
b. Balancing force couples - rocking horse phenomenon
c. Elevation progression – ER/IR balance versus actual elevation exercise following arthroplasty
d. Use of activity simulation prior to return to sport

IV. Long Term Outcomes following Shoulder Arthroplasty in the Young Active Patient

References:


I. Introduction: what shoulder injury does an infant, a 94 yo man, intoxicated alcoholic, an athlete, and a recreational snowmobiler have in common?

II. Complicated shoulder case: Luxation erecta is a rare inferior shoulder dislocation compromising less than 0.5% of shoulder instabilities. Bilateral luxation erecta is even rarer.

III. Complications: Fractures, Bankart lesions, Rotator cuff tears, neurovascular triad injuries

IV. Review of the Literature—there are only 19 cases reported in the world’s literature and none as complicated as the case to be presented and none have the rehabilitation described or follow-up re-evaluations documented

V. Mechanism of Injury—Snowmobiling accident and flipped over handlebars holding onto steering wheel

VI. Acute Emergency Care—Air Medi-vaced to ER, ER treatments, Imaging, reduction, etc.

VII. Initial surgical interventions—L-Open RTC repair, R-Percutaneous screw fixation of comminuted fracture of greater tuberosity

VIII. Physical Therapy Examination—Data to be presented

IX. Early Phase Rehabilitation—To be described

X. Objective ROM measurements

XI. Mid-Phase Rehabilitation

XII. Objective ROM measurements

XIII. Objective isokinetic testing measurements

XIV. Late Phase Rehabilitation

XV. Objective ROM measurements

XVI. Objective isokinetic testing measurements

XVII. Objective functional CKC upper extremity stability test

XVIII. Follow-Up Outcomes—1 year

XIX. Follow-Up Outcomes—2 years
XX. Follow-Up-4 years
XXI. Follow-Up-5 years
XXII. Follow-Up-~20 years (If patient available)
XXIII. References:

- Lill, H, et.al. [Bilateral luxatio erecta of the shoulder joint--a rare injury. Management and therapy in polytrauma patients]. [Article in German]
- Groh, GI, et.al. Results of treatment of luxatio Erecta (inferior shoulder dislocation). JSES. 2010