Goshen Physicians

ORTHOPEDICS & SPORTS MEDICINE

Arthroscopic Pansuture Capsulorraphy Protocol

Structures Which Require Protection During Rehabilitation:

- Due to the arthroscopic nature of these surgeries, the rotator cuff is not significantly disturbed. Therefore AROM, dynamic stability activities, and strengthening *do not* need to be delayed to protect the rotator cuff. However, sutures, anchors, capsule, ligaments, and labrum need *significant* protection from undue stress for a period of time (usually at least 6 weeks) to facilitate appropriate tissue healing.
- *Therefore close communication with the physician is vitally important* to discuss associated lesions, tissue quality, fixation method and position. Based upon this information, ROM and strengthening activities will be slowly increased during the initial post operative time period to ensure adequate healing

Critical Rehabilitation Principles

- Historically, 2-4 weeks of immobilization is common after arthroscopic instability repair. However, there is evidence that immediate staged ROM is safe and may provide an earlier return to functional activity and ROM although long term results are not significantly different. Therefore, we advocate 0-4 weeks of immobilization dependent on factors such as the patient's specific injury / pathology, co-morbidities, amount of natural laxity, past surgical history, specific surgical technique (including type of fixation and arm position at the time of capsular plication), and physician philosophy.
- Balancing the speed of P/AAROM gains is vitally important to adequately protect the surgical repair and to assure ROM is not gained too quickly or too slowly. Gaining ROM too quickly (especially ER and IR) is a more common problem and may result in recurrent laxity, while gaining ROM too slowly may result in residual stiffness.
- Balancing the speed of P/AAROM gains can be accomplished through the use of staged ROM goals. The optimal speed of P/AAROM gains is different for each patient and based on factors such as their specific injury /pathology, co-morbidities, amount of natural laxity, past surgical history, specific surgical technique (including type of fixation and arm position at the time of capsular plication), and physician philosophy.
- Staged ROM goals can be determined at least two ways:
    - Physician preference based on the factors above.
    - If guidance is not given by the physician, then the following table can be used as a general guideline:

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Post-Op Wk	PFE	PER@20 Abd	PER@90 Abd	AFE
3	90 deg	10-30 deg	Contraindicated	NA
6	135 deg	35-50 deg	45 deg	115 deg
9	155 deg	50-65 deg	75 deg	145 deg
12	WNL	WNL	WNL	WNL

PFE = Passive FE in scapular plane, PER = Passive ER, AFE= Active FE

- **PROM greater than the motions listed above should be avoided.**
- **Interventions should not be forceful or painful**.

Precautions/Contraindications:

- Adequate protection of the surgical repair for at least the first six weeks is vital. During this early time period *ROM /stretching into end range positions*, especially end range IR and ER by the side and end range ER in abduction *should NOT be performed as these motions place tension on the anteroinferior shoulder capsule.*
- Because of the minimally invasive nature of these procedures, the pain that some patients experience is minimal allowing for greater use of their arm than is advisable. Therefore, extensive patient education is vital to convey the importance of protecting the surgical repair. *Heavy lifting and use of the arm in positions requiring end range ROM are not allowed in the early postoperative period (<POW 6).*

Specific Rehabilitation Guidelines

Recommendations:

- Wear sling for no longer than 6 weeks.
- No driving until 4 – 6 weeks post-op.
- Ice 3-4 times per day as needed for 1st week then as needed thereafter.
- Encourage PROM at home daily (2 – 3 sessions) by family member for the first 6 - 8 weeks.
- **PROM Limits: Forward elevation to 90°, abduction to 45°, internal rotation (in 30° abduction) to 30° and external rotation (in 0° abduction) to 0° for the first 4 weeks.**
- No shoulder extension for the first 6 weeks.
- Return to work and sport to be determined on an individual basis by the physician.

Post-op Protocol:

0 - 4 Weeks:

- Instruct family member in proper PROM techniques and ROM limitations. ***Have them perform a supervised demonstration.***
- Educate on importance of proper posture sitting and standing
- Wean from sling (daytime) **in a controlled environment** after 2 wks. **NO arm swinging until after 4 wks.**

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1. Easy PROM within limitations: Forward elevation to 90°, abduction to 45°, internal rotation (in 30° abduction) to 30° and external rotation at 0° abduction to 0°.
2. Submax isometrics in all planes.
3. Soft tissue massage once portals heal.
4. Progress to cane exercises for external rotation (arm at side) to neutral.
5. Shoulder shrugs in supine.
6. Gentle manual resistance for scapular protraction/retraction and elevation/depression.
7. Supine rhythmic stabilization in 90° forward elevation.
8. AROM of all UE joints distal to shoulder with elbow supported.
9. Mass grip exercises with tennis ball or theraputty.

4 - 6 Weeks:

- Discontinue daytime use of sling at 4 weeks. Sleep in sling for 5 - 6 weeks. Discontinue sling completely by 6 weeks.
- Begin AAROM

1. PROM within limitations: Forward elevation to 90°, abduction to 90°, internal rotation (in 60° abduction) to 45° and external rotation at 0° abduction to 30°.
2. Easy AAROM within ROM limits beginning in supine (i.e. Wand exercise for forward elevation only while supine).
3. Prone extensions and prone rows to neutral (e.g. 0° shoulder extension).

6 - 8 Weeks:

- PROM to tolerance
- Begin AROM within pain-free ROM

1. Begin to push PROM & AAROM.
2. Pulley for abduction and forward elevation.
3. UBE (no shoulder distraction).
4. Row machine (vertical grip and no shoulder distraction).
5. AROM with emphasis on rotator cuff exercises, without resistance, including sidelying external rotation & standing forward elevation <90°. Progress to prone horizontal abduction (thumbs up) at 100°, prone external rotation in 90/90 position, and prone extension, all within pain-free ROM.
6. Progress to theraband for internal and external rotation at neutral.

8 - 12 Weeks:

- Begin RROM within pain-free ROM
- Gradual progression of functional activities if ROM and strength allow proper mechanics of the shoulder complex

1. Progress to PRE's as appropriate.
2. Begin gentle CKC exercises.
3. Manual PNF.
4. Begin low-level plyometric progression including 2-hand plyoback ball toss, ball dribbling, etc.

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12 – 16 Weeks:

- PROM within end range limits by 12-16 weeks
- Equal strength, bilaterally, by 16-20 weeks
- Emphasize concepts of frequency, duration and intensity of training

1. Progress CKC exercises to include seated press-ups, step-ups, BAPS board, treadmill and push-ups with a plus (wall to floor progression).
2. Begin endurance training with emphasis on upper extremity activities (e.g. UBE).
3. Begin limited sport-specific activities.

16+ Weeks:

1. Progress sport-specific activities including interval throwing and swinging programs.

Return to sports to be determined by MD (usually 4 – 6 months depending upon sport and position).

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