A Conservative Physical Therapy Approach after Subacromial Decompression and Labral Debridement in a Young Former Competitive Gymnast: A Case Report

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Background
Subacromial impingement syndrome is a musculoskeletal condition characterized by:
• Shoulder pain
• Altered glenohumeral kinematics
Conservative treatment can include:
• Physical therapy
• Corticosteroid injections
Surgical option includes subacromial decompression (SAD)
• Most patients who undergo SAD are approximately 50-60 years old
• There is little to no evidence regarding rehabilitation of young, healthy individuals following SAD

Purpose
The purpose of this care report was to investigate the conservative protocol of a young, healthy gymnast who underwent SAD and rotator cuff (RC) surgery.

Case Description
• 23 year old female
• Recently retired gymnast
• Two part-time jobs: retail and administrative work
• SAD and labral and RC debridement performed on left shoulder

Examination
Impairments
• Decreased L UE ROM:
  • 88° forward flexion (passively)
  • 34° external rotation (passively)
• Decreased L UE strength
• Increased muscle tone of L UE
• UEFS: 3/80
• Pain, tenderness, sensitivity
• Decreased mobility
• Minimal L UE muscle atrophy
• Portals – no signs of infection
• Minimal swelling and bruising
• R UE within normal limits

Functional Limitations
• Dependence or required assistance with most ADLs
• Difficulty with sleeping
• Unable to reach arm behind back
• Decreased activity tolerance
• Difficulty with functional mobility and activities

Disabilities
• Unable to work
• Limited school participation
• Unable to exercise

Outcomes
Improvements were observed in left shoulder AROM and PROM, strength, pain, and functional outcomes.
• Compared to right, left shoulder achieved full ROM
• L shoulder strength was at least a 4+/5 for all MMT
• Pain improved from 5/10 to 0/10
• UEFS score improved from 3/80 to 72/80

Interventions
CC was seen for 45 minutes sessions, 2-3 times per week for 10 weeks. The primary focus was to reduce pain and improve ROM, strength, and functional ability in order to return to sports.

Interventions included:
• Therapeutic exercises
• Stretching with PROM and AAROM
• Strength training
• Functional activities/mobility
• Modalities for pain management
• Manual therapy
• Body/posture re-education
• Joint mobilizations
• Soft tissue mobilization
• Home exercise program

Time Frame
<table>
<thead>
<tr>
<th>Phase</th>
<th>Goals</th>
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<tr>
<td>Phase I</td>
<td>Immediately post-op through 10 days post-op PT 2x a week (BIW) / 3x a week (TiW) Home exercise program (HEP) 2x daily</td>
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<td>Phase II</td>
<td>10 days to 4 weeks post-op PT BIW/TiW HEP daily</td>
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<td>Phase III</td>
<td>4-8 weeks post-op PT weekly Exercise in health club or home gym TiW</td>
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<td>Phase IV</td>
<td>8-20 weeks post-op PT weekly Exercise in health club or home gym 5xwk</td>
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Discussion
Outcomes indicated that SAD, labral and RC debridement followed by conservative physical therapy treatment were successful for a young, athletic patient with subacromial impingement syndrome. More research is needed to investigate an aggressive protocol to return high-functioning patients back to their sport.

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References
For references, see full case report at UNE Dune.