Evaluation and Treatment of a Patient Diagnosed with Adhesive Capsulitis Classified as a Derangement Using the McKenzie Method: A Case Report

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Unique & Innovative
The McKenzie Method of mechanical diagnosis and therapy (MDT) is supported in the literature as a valid and reliable approach to spine injuries.\(^3\), \(^5\) It can also be applied to the peripheral joints, but has not been explored through research to the same extent. A previous case series detailed the use of MDT in the treatment of adhesive capsulitis has not been previously reported in the literature.\(^1\)

Purposes
The purpose of this report is to demonstrate the assessment, intervention, and clinical outcomes of a patient diagnosed with adhesive capsulitis, who was classified as having a shoulder derangement using MDT methodology.

Foundation
- Bases treatment on patient response to movement via symptom provocation and alleviation\(^3\).
- Sub-classifies conditions based on tissue response to mechanical loading with specific, repeated motions identified during testing\(^2\).
- Sub-classifications: trauma/inflammatory, postural, dysfunction, derangement, chronic pain state\(^4\)

MDT Method
- Questionable reliability/validity of specialized orthopedic testing making identification of anatomical structure challenging\(^3\).
- Adhesive capsulitis is very challenging to diagnose; patients are commonly misdiagnosed as having this condition\(^3\).
- MDT is an alternative way to evaluate and treat without identifying the exact anatomical structure.

Solution

Description
- 52-year-old female
- 4-week insidious onset left shoulder pain
- Medical diagnosis: adhesive capsulitis
- Decreased work/ADL capabilities: 55/80 Upper Extremity Functional Scale (UEFI)
- Pain: 4-7/10 visual analog scale (VAS)
- Decreased A/PROM: 152° abduction, 155° flexion, 70° ER
- Rapid change in symptoms (pain decreased to 1/10, ROM increased) following repeated shoulder extension/scapular retraction
- MDT classification: derangement

Observations

<table>
<thead>
<tr>
<th>Repeated Motion Testing</th>
<th>Initial Evaluation Results</th>
<th>Final Evaluation Results</th>
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</thead>
<tbody>
<tr>
<td>Scapular Retractions</td>
<td>During: pain Down, ROM Up</td>
<td>Full ROM, 0/10 pain</td>
</tr>
<tr>
<td></td>
<td>After: ROM/pain better (1/10)</td>
<td></td>
</tr>
<tr>
<td>Shoulder Flexion</td>
<td>During: NE pain, ROM Up</td>
<td>Not tested</td>
</tr>
<tr>
<td></td>
<td>After: NE pain/Rom</td>
<td></td>
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<tr>
<td>Shoulder ER</td>
<td>During: pain Up, NE ROM</td>
<td>Not tested</td>
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<tr>
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<td>After: ROM/pain worse</td>
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<td>Shoulder Extension</td>
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</tbody>
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Mechanical Diagnosis Hypothesis
- Derangement Syndrome
- Confirmed/Rejected
  - Improvements in ROM/pain/functional status with repeated scapular retractions/shoulder extension confirm hypothesis

Conclusions
The patient demonstrated symptomatic improvement and restoration of functional abilities following evaluation and treatment using MDT methodology. The use of MDT techniques can be effective in the treatment of extremity pathology.

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References