

Treatment of a Work-Related Superior Glenoid Labral Repair: A Case Report



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Background

- A superior glenoid labrum tear is a common injury in the shoulder¹
- The highest incidences of superior labrum tear from anterior to posterior (SLAP) lesions occur in individuals from 20-29 years old and 40-49 years old¹⁻³
- Common signs and symptoms: instability in the joint, shoulder dislocations, pain with overhead activities, decreased range of motion, and loss of strength¹
- SLAP lesions are less commonly seen in the workplace⁴
- There is little detail/research about which joint mobilizations/therapeutic exercises are most beneficial for this population¹⁻⁴



Figure 1. Image from Medpix. SLAP lesion in shoulder. The green arrow is pointing to the SLAP tear, the red arrow is pointing to osteoarthritis of the glenohumeral joint and cyst formation.

Purpose

- To explore the post-operative PT management of a Workers' Compensation patient with a superior glenoid labrum lesion.

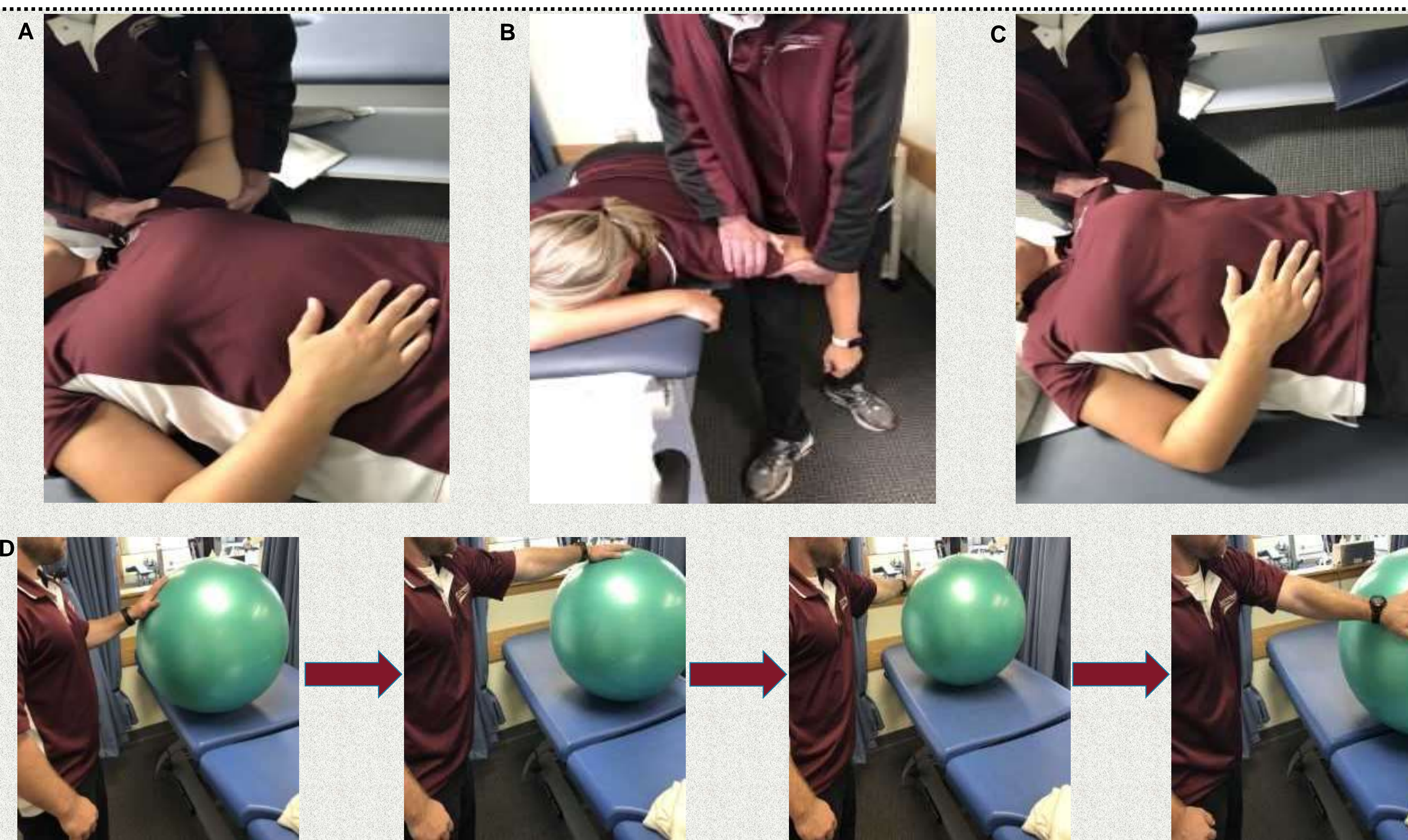
Case Description

- 45-year-old Hispanic female with a superior glenoid labrum lesion of the left (L) shoulder requiring surgical repair
- She worked in the produce department of a grocery store
- This was a Workers' Compensation injury
- Chief complaints: pain, weakness, and limited joint mobility
- Prior level of function: fully independent
- Goals: fast recovery, decrease pain, return to work

Systems Review	Initial Evaluation	Discharge
<u>Cardiopulmonary/Pulmonary</u>	Impaired Hypertension High Cholesterol	No change
<u>Musculoskeletal</u>	Impaired Superior glenoid labral tear with surgical repair, increased pain with decreased ROM, decreased strength, tenderness to palpation of the anterior and posterior L shoulder	WNL (within normal limits)
<u>Neuromuscular</u>	Patient is alert and oriented. WNL - balance, transfers, and locomotion. Increased muscle tone of the L shoulder, biceps triceps, and flexors/extensors of the L arm	WNL
<u>Integumentary</u>	WNL – healing surgical incisions	WNL
<u>Communication</u>	WNL – occasionally requires English to Spanish translation	WNL
<u>Affect, Cognition, Language, Learning Style</u>	WNL – prefers demonstration	WNL

Intervention

- The patient attended PT two times a week for 12 weeks = 24 visits
- One-hour treatment sessions included strengthening and mobility exercises, stretching, manual therapy, joint mobilizations, electrical stimulation and a home exercise program (HEP) under the direction of the surgeon's rehabilitation protocol⁹



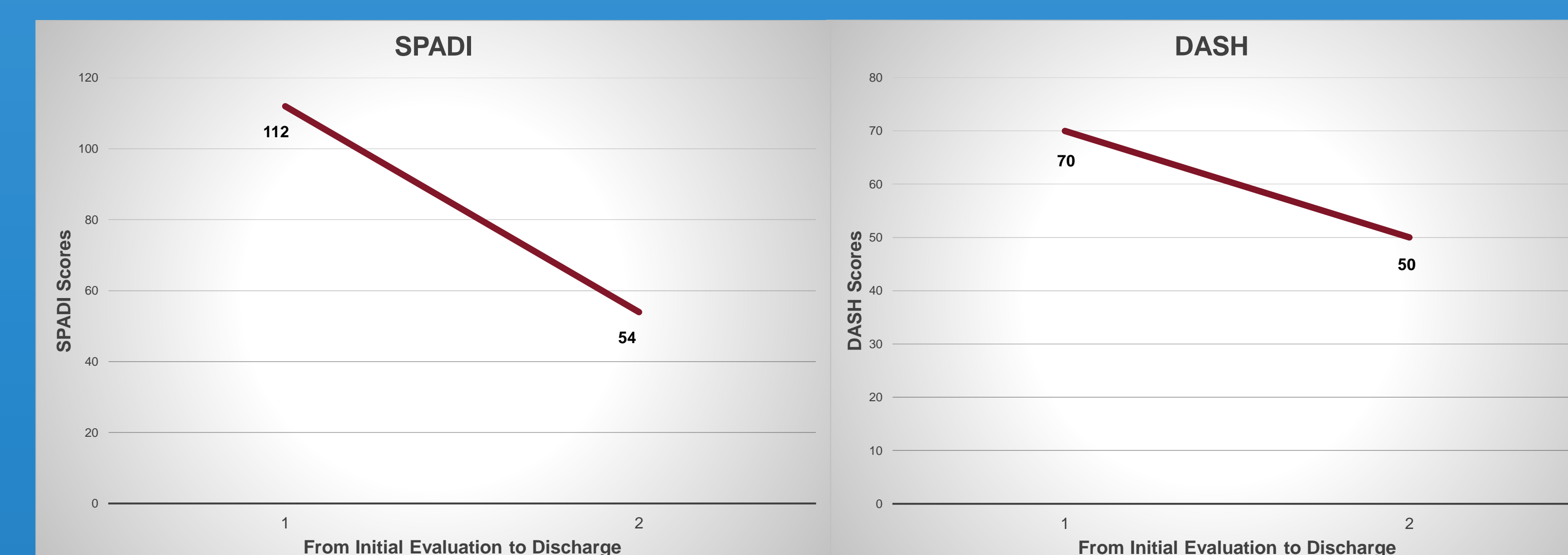
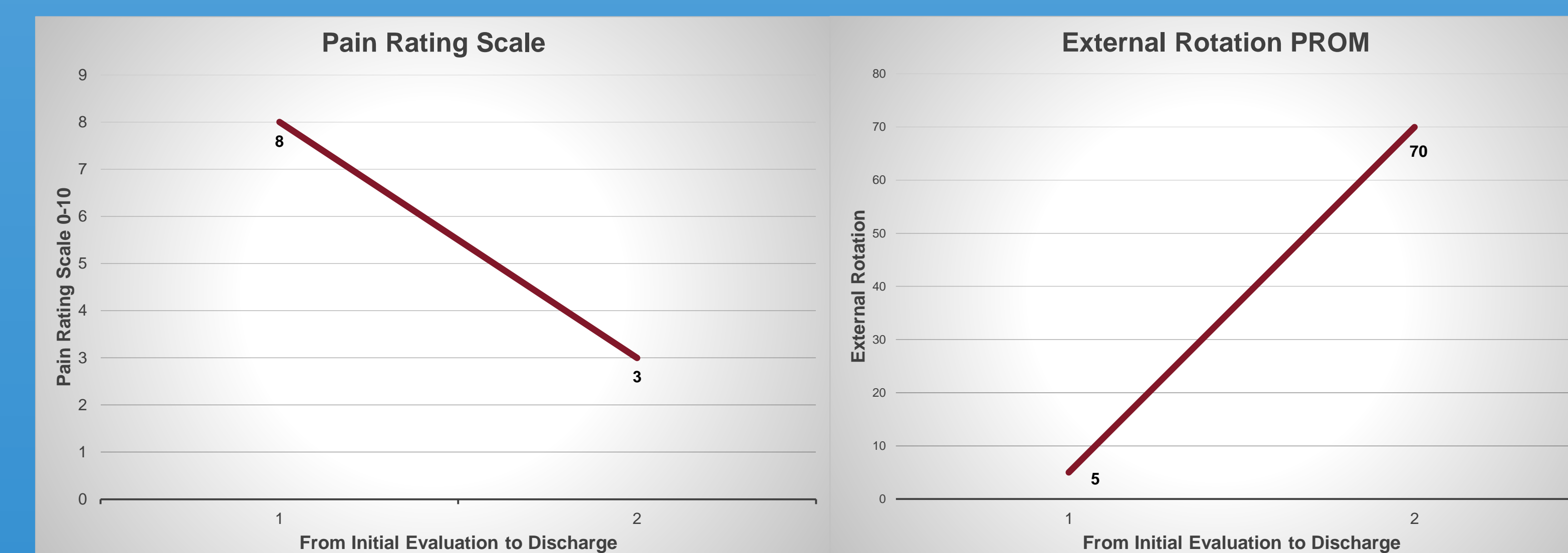
A: Joint mobilizations performed for External Rotation specific motion – Anterior Glide of the shoulder pictured in supine
 B: Joint mobilizations performed for External Rotation specific motion – Anterior Glide of the shoulder pictured in prone
 C: Joint mobilizations performed for Abduction specific motion – Inferior Glide of the shoulder
 D: Active Assisted ROM with ball – Flexion, Abduction, and Adduction progression

Tests and Measures	Initial Evaluation	Discharge
<u>Shoulder ROM</u>		
Flexion	40 AAROM, 45 PROM,	150 AROM, 165 PROM
Extension	20 PROM	Full PROM and AROM
Abduction	35 PROM	150 AROM, 160 PROM
Internal Rotation	Hand behind back to L gluteus	Hand to T10
External Rotation	5 PROM	70 PROM
<u>MMT</u>		
Shoulder muscle strength	2/5 grossly overall	4+/5 grossly overall
<u>Palpation for Tenderness</u>		
	Grade II tenderness L anterior and posterior shoulder	Mild tenderness at posterior rotator cuff
<u>Palpation for Muscle Tone</u>		
	Moderately increased L shoulder complex musculature	Mildly increased muscle tone at posterior rotator cuff
<u>Numeric Pain Rating Scale (0-10)</u>		
At Best	6/10	0/10
At Worst	8/10	3/10
<u>Outcome Measures</u>		
DASH	70/100	50/100
SPADI	112/130	54/130

ROM (range of motion), MMT (manual muscle test), AAROM (active-assisted ROM), PROM (passive ROM)

Outcomes

- Increased ROM, strength, muscle tenderness and tone
- Decreased pain at worst 8/10 pain initially, 3/10 at discharge
- All short and long-term goals were met
- Returned to full-duty work after 4 years



Discussion

- The interventions appeared to be successful based on the patient's subjective reports and objective findings
- Results showed improvements with pain, ROM, strength, muscle tenderness and tone^{7,8}
- DASH and SPADI improvements met the MCID^{5,6}
- Patient verbalized compliance with her HEP prior to discharge
- The outcomes of this case seemed to be consistent with current research regarding the treatment for this type of shoulder injury¹⁰
- Further research: determine the long-term benefits of the mobility therapeutic exercise for workers' compensation patients
- Due to the matter that this is a rare injury seen in the workplace, more research is necessary to find the optimal treatment method since research is limited¹⁻⁴

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