Proprioceptive Neuromuscular Facilitation In A Male Wrestler Post Type II Slap Lesion Surgical Repair

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PURPOSE

A Type II SLAP lesion is described as degenerative fraying in conjunction with a detached superior labrum and biceps from the glenoid causing an unstable labral-biceps anchor.[1] The mechanism of injury for these types of lesions may vary from isolated trauma of the shoulder to repetitive micro-traumas in overuse.[2] Traditionally following surgical repair of a Type II SLAP lesion, patients are recommended for physical therapy to help facilitate improved functional outcomes.

The primary purpose of this case report was to assess the effects of a specific progression of PNF and Rhythmic Stabilization Exercises (RSE) in conjunction with traditional physical therapy for a seventeen-year-old wrestler post Type II SLAP lesion surgical repair.

CASE DISCRIPTION

Patient Background:
- Healthy seventeen-year-old male wrestler
- Right Type 2 SLAP lesion
- Presented to physical therapy 2 days post-operation
- Wore sling for the first 4 weeks

Body structure & function:
- Initial VAS and UEFI score of 5/10 and 4/80
- Decreased ROM, strength, and function of shoulder

Activity Limitations
- Driving, cooking, cleaning, and overhead activities

Participation Limitations
- Unable to participate in high school wrestling and weightlifting

CASE DISCRIPTION

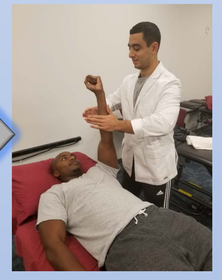
Phase 1 (weeks 1-6): Gentle therapeutic exercises

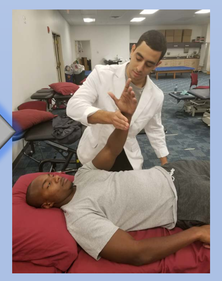
Phase 2 (weeks 7-13): Full ROM

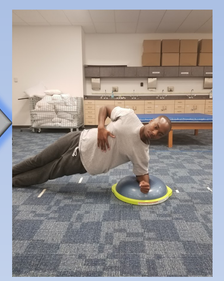
Phase 3 (weeks 14-19): Advanced Strengthening

Phase 4 (weeks 20-24): Return to Sport

PNF and RSE program highlights	
Phase 1	**Week 6**: gentle RSE in supine with shoulder in elevation: 3 sets x 30 seconds
Phase 2	**Week 10**: PNF with patient supine resisting D1 and D2 pattern: 3 sets x 30 seconds
Phase 3	**Week 15**: single arm plank on elbow in sidelying with perturbations on unstable surface: 3 sets x 30 seconds







RESULTS

Test and Measures:		Initial Examination	Week 7	Week 14	Week 24
Active Range of Motion (AROM)	Shoulder Flexion	Not tested	155 degrees	180 degrees	180 degrees
	Shoulder Abduction	Not tested	150 degrees	180 degrees	180 degrees
	Shoulder External Rotation	Not tested	60 degrees with pain	85 degrees with pain	90 degrees
	Shoulder Internal rotation	Not tested	75 degrees	90 degrees	90 degrees
	Shoulder Extension	Not tested	45 degrees	60 degrees	60 degrees
Visual Analog Scale (VAS)	At Rest	5/10	3/10	2/10	0/10
Manual Muscle Tests	Shoulder flexion	Not Tested	3+/5	5/5	5/5
	Shoulder abduction	Not Tested	3+/5	4+/5	5/5
	Shoulder external rotation	Not Tested	3/5	4-/5	5/5
	Shoulder Internal rotation	Not Tested	3+/5	4+/5	5/5
Functional Self Report	Upper Extremity Functional Index	4/80	27/80	70/80	75/80

CLINICAL RELAVANCE

This case report indicated that the utilization of PNF and RSE is a beneficial component to physical therapy treatment of a seventeen-year-old wrestling athlete with a Type II SLAP lesion surgical repair. Designing a treatment plan with emphasis on PNF and RSE is cost efficient, as it does not require expensive equipment or additional certifications. Also, physical therapists utilizing PNF and RSE could further control the safety of therapeutic interventions by providing manually controlled resistance and perturbations.

REFERENCES