A SUCCESSFUL NON-SURGICAL APPROACH TO SHOULDER DISLOCATION REHABILITATION

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Shoulder injuries in professional football, while less frequent than lower-limb injuries, can be severe and carry a high risk of recurrence (1, 2). In the first half of a Premier League match, a contested challenge forced the right arm of an international player, with +200 appearances across elite European leagues, into abduction and horizontal extension. He continued to play after the incident but reported at half time that he suspected a shoulder dislocation. Initial assessment identified low pain, apprehension signs, anterior labral tear and reduced function. MRI confirmed an anterior instability pattern with a Hill Sachs lesion and anterior ligament injury. The player's initial preference was surgical stabilisation based on the perceived risk of recurrence and associated time loss. The medical team wanted to consider all options and whether surgery was necessary, or if a conservative approach could recondition the shoulder to meet the physical demands of the game, restoring the players confidence and minimise time loss. Head Physiotherapist: "My personal feeling was that a non-operative approach would be the best strategy given it was a first-time dislocation. However we needed clarity on this decision and most importantly, we needed to put the player at the centre of the plan to ensure he trusted the outcome and bought into the process." A collaborative approach integrated club physiotherapy, club strength and conditioning and a shoulder reconditioning specialist. With the player's approval, an appointment was scheduled with a leading upper limb orthopaedic consultant which created a window of opportunity to implement a short-term conservative approach and assess what might be achievable without surgery. Utilising objective testing (table 1) and progressive functional assessments, a novel reconditioning training strategy was designed to develop greater upper limb athleticism using gymnastics rings, progressive hanging patterns, reactive rate of force development, and exposure to vulnerable positions. The objective was to build robustness and restore confidence in the shoulder under chaotic, sport specific demands. Strength and Conditioning Coach: "We had six weeks before the appointment with the orthopaedic consultant so we were very proactive in implementing the strategy to see what we could achieve with a novel 4-week reconditioning programme first." Over four weeks, the athlete continued to train and play in a shoulder brace (Donjoy, Sulley) while the intervention was embedded into routine strength and conditioning delivery, minimising additional burden on player and staff. Player: "I really liked the shoulder reconditioning work, my shoulder felt strong and stable again." After 4 weeks, objective testing showed improvements across all target metrics which were triangulated with observed technical execution, contact readiness, and player confidence during progressively demanding reconditioning exercises. The data report alongside context of the athlete's performance and progression was provided to the orthopaedic surgeon by the physiotherapist during the scheduled consultation. The consultant was impressed with the player's shoulder function and surgical intervention was deemed unnecessary thus highlighting the effectiveness of the approach. Head Physiotherapist: "We were really pleased with how the player progressed through rehabilitation, he looked strong both in the gym and on the field, and there was no time loss." At eight months' follow up, the athlete has remained fully available, with no recurrent instability. The only incident was an irritation of the labral tear following a collision. This didn't result in time loss and was managed over a four-day period. The case report shows that non-surgical reconditioning strategies post shoulder dislocation can yield effective and long-lasting outcomes. It also demonstrates the importance of the athlete's voice and the psychological dimension of return to play following shoulder dislocation. That being the fear of recurrence thus highlighting the importance of the reconditioning programme design. Player: "After the dislocation, I was worried about re-injury and missing time for both club and country. Initially, I felt surgery was the best option, but with the support of the club and specialist staff, we explored a different rehabilitation approach that allowed me to avoid surgery."

Table 1. Baseline and retesting results after 4 weeks of a shoulder reconditioning programme for Non-Injured Limb (NI) and Injured Limb: (I). Values represent Newtons per kilogram bodyweight [N/kg], seconds [s], Newtons per second [N/s], peak force [N], and asymmetry for left and right limbs. % change calculated from raw data.

Test		Baseline Test	Asymmetry	Retest Week 4	Asymmetry	% Change
Isometric Shoulder External Rotation [N/Kg]	Non-Injured (NI)	2.1	24.6% (NI)	2.1	16.3% (NI)	0%
	Injured (I)	1.6		1.8		+11%
Isometric Shoulder Internal Rotation [N/Kg]	Non-Injured	2.2	19.8% (NI)	2.5	8.5% (I)	+14%
	Injured	1.8		2.8		+55%
Drop Landing: Average Time to Stabilisation [s]	Non-Injured	0.37	19.8% (I)	0.32	4.6% (I)	+14%
	Injured	0.47		0.33		+35%
Plyo Push Up: Eccentric Braking RFD [N/s]	Non-Injured	1090	29% (NI)	1459	2% (NI)	+29%
	Injured	773		1427		+59%
Ash Test T: Max Peak Vertical Force [N/kg]	Non-Injured	1.8	17.9% (NI)	1.8	6.1% (NI)	0%
	Injured	1.5		1.7		14%
Ash Test T: Max Force at 150ms [N]	Non-Injured	93	22.6% (NI)	102	7.8% (NI)	10%
	Injured	72		94		31%
Ash Test T: RFD at 150ms (N/s)	Non-Injured	393	13.6% (NI)	493	9.5% (NI)	+25%
	Injured	340		447		+31%

References

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