

TABLE E-1 Study Inclusion and Exclusion Criteria

Inclusion criteria	<p>Age of 14 years or older</p> <p>Diagnosis of traumatic anterior shoulder instability made by patient meeting both of the following:</p> <ul style="list-style-type: none"> • Radiographic evidence or documented physician-assisted reduction of anterior shoulder dislocation following a traumatic injury • Ability to elicit unwanted glenohumeral translation, which reproduces symptoms with one of the following tests: anterior apprehension, relocation, or anterior load and shift test <p>Closed growth plate on a standardized series of radiographs consisting of a minimum of an anteroposterior view, lateral view in the scapular plane, and axillary view</p>
Exclusion criteria	<p>Diagnosis of multidirectional instability or multidirectional laxity with anteroinferior instability based on ≥ 2 of the following:</p> <ul style="list-style-type: none"> • Symptomatic pain or discomfort in inferior or posterior direction • Ability to elicit unwanted posterior glenohumeral translation that reproduces symptoms with posterior apprehension tests or posterior load and shift test • Positive sulcus sign of ≥ 1 cm that reproduces the patient's clinical symptoms <p>Previous surgery on the affected shoulder other than diagnostic arthroscopy</p> <p>Cases involving litigation</p> <p>Substantial tenderness of acromioclavicular/sternoclavicular joints on the affected side</p> <p>Confirmed connective tissue disorder (e.g., Ehlers-Danlos syndrome, Marfan syndrome)</p>

TABLE E-2 Postoperative Rehabilitation Protocol

Phase	Description
I: Immobilization (4 weeks)	Patients wore the immobilizer for two weeks and then were weaned from the immobilizer over the next two weeks. They were allowed to remove the immobilizer for showering and elbow flexion/extension exercises. Patients were strictly instructed to avoid shoulder abduction, flexion, and external rotation, except for daily hygiene purposes
II: Initial mobilization (4-6 weeks)	At four weeks, the immobilizer was removed at the discretion of the patient. Pendulum exercises were initiated at home, and active assisted range-of-motion exercises were directed by a physiotherapist. External rotation was limited to $<30^\circ$. Forward elevation in the scapular plane was limited to 90° and internal rotation, to the level of the ipsilateral buttock. Gradual progress was emphasized. Strengthening was initiated with isometric exercises for the rotator cuff and scapular muscles
III: Progressive mobilization (6 weeks-3 months)	The patient was allowed to progress to 75% of the normal range of motion as compared with the contralateral shoulder. This was performed in active assisted and active mode. Passive stretching was not utilized unless there was no progress with range of motion. Strengthening progressed from active to resistive exercises that utilized rubber tubing and free weights, isotonicity
IV: Final rehabilitation (3-6 months)	This phase incorporated progressive strengthening, and range-of-motion exercises. Proprioceptive training was emphasized. The goal was to have at least 90% of the range of motion in all planes, full strength, and proprioceptive control. On completion of this phase, patients were allowed unrestricted activity, provided they had realized these goals

TABLE E-3 Range-of-Motion Measurements at Baseline and the Two-Year Follow-up Evaluation

	Forward Flexion (°)		External Rotation at Side (°)		External Rotation in Abduction (°)	
	Baseline	2 Years	Baseline	2 Years	Baseline	2 Years
Open group						
Mean	167	169	61	56	83	86
SD	14	14	16	20	20	12
95% CI	164-169	165-173	57-64	50-62	79-87	82-89
Arthroscopic group						
Mean	164	168	60	52	84	83
SD	22	12	18	15	13	11
95% CI	160-169	164-172	57-64	47-57	81-86	80-87
P value	0.35	0.68	0.89	0.32	0.78	0.43