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ABSTRACT

Clinical Scenario: Anterior shoulder instability is a common problem in the athletic population. Treatment for this problem typically involves rehabilitation and if instability continues surgical repair to stabilize the joint. The technique that is used is controversial. **Focused Clinical Question:** In patients with anterior shoulder instability what is the effectiveness of the Bristow Latarjet coracoid bone block compared to capsular shift with suture anchors on the recurrence of dislocation? **Search strategy:** The search for research studies began on PubMed, CINAHL Plus, and Pro-Quest Nursing. The search terms included anterior shoulder instability, surgical techniques, treatments. With these search terms brought up about 250 studies. After reviewing some of the studies it was decided to analyze the effectiveness of the Bristow Latarjet procedure and the capsular shift with suture anchors. The same search terms were utilized. **Evidence Quality Assessment:** The PEDro Scale was utilized to determine the quality. The studies had a range on the Pedro scale from 5/10 to 7/10. The 2011 Oxford Level of Evidence was utilized with the studies ranging a score of 2-4. The Strength of Recommendation (SORT) score was a B. **Results and Summary of Search:** After reviewing the 9 studies it was concluded that the two surgical procedures produced the same outcome with no statistical significant differences when looking at re-dislocation rate. There was a slight favor the Bristow Latarjet procedure for stability when comparing Western Ontario Shoulder Instability Index (WOSI) scores. It was also found across all the studies that patients that dislocated their shoulder more than four times before surgery were more likely to suffer instability after surgery. The strengths of these studies include having a long follow up time of at least 2 years post completion of rehabilitation. A weakness was that the patients, researchers, and therapists were not able to be blinded in these studies possibly allowing for bias. **Clinical Bottom line:** When comparing the Bristow Latarjet procedure to the capsular shift, both procedures produce comparable results with no statistically significant differences when looking at the rate of re-dislocation. **Implications:** This research can be used to help better decide what procedure athletes may want to choose to have done if they are suffering from shoulder instability. This research shows that both procedures are effective in stabilizing the shoulder after chronic dislocations. However, there is an increased risk of instability in patients with previous multiple dislocations before surgery, or if the patient is returning to a collision sport.

CLINICAL SCENARIO

- Anterior shoulder instability is common in contact and non-contact sport activities.
- The common mechanism for an anterior shoulder dislocation is abduction and external rotation of the humerus.
- Once an athlete dislocates the glenohumeral joint it is at an increased risk for recurrent instability.
- Surgical stabilization is the common course of treatment.
- The surgical techniques used are very different however, both produce similar stability results.
- Common techniques used are the Bristow Latarjet coracoid bone block and capsular shift re-tensioning with suture anchors.
- This study is focusing on the recurrence of dislocation between the techniques.
- After surgical stabilization, patients return with few restrictions to pre-surgery activity levels.
- Patients returning to contact sports have an increased risk for re-dislocating.

FOCUSED CLINICAL QUESTION

- In patients with anterior shoulder instability what is the effectiveness of the Bristow Latarjet coracoid bone block compared to capsular shift with suture anchors on the recurrence of dislocation?

SEARCH STRATEGY

- Data bases: PubMed, CINAHL Plus, and Pro-Quest Nursing.
- Search terms: anterior shoulder instability, surgical techniques, treatment options.
- 250 studies met the initial requirements, and were narrowed down to 9 studies that met the full requirements.
- Inclusion criteria: Anterior shoulder instability, bankart lesion, chronic instability, anterior dislocation.
- Exclusion criteria: Posterior dislocation, hill sachs lesion, AC joint sprain, humeral fractures.
- Surgical procedures include Suture anchor stabilization and Bristow Latarjet coracoid bone block.

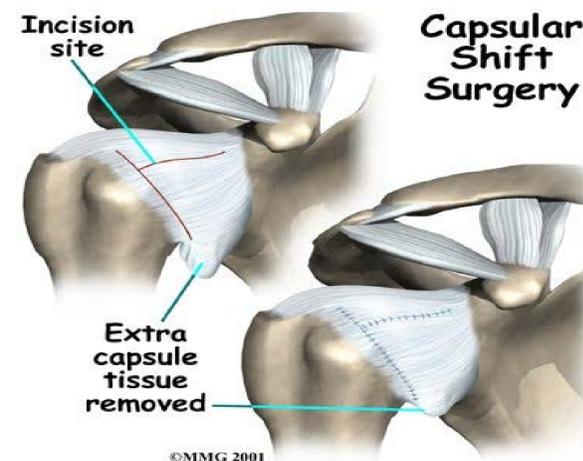
EVIDENCE QUALITY ASSESSMENT

- All of the studies were original research.
- PEDro score range 5/10 to 7/10
- Oxford level of evidence ranging from 2-4
- SORT score of a B



RESULTS AND SUMMARY OF SEARCH

- All 9 studies found no statistically significant difference between techniques.
- There was a slight favor for the Bristow Latarjet procedure but it was not significant.
- It was found that the capsular shift allowed patients to have greater range of motion after surgery.
- The length of time to re-dislocation was longer with the Bristow Latarjet.
- It was found that patient's that have dislocated more than four times before surgery are going to be at a greater risk for re-dislocating after surgery.
- Both a strength and a weakness of the studies were that the population ranged from 18-65 years of age, the majority of the subjects were in their middle 30 years of age and few were collegiate age.



RESULTS AND SUMMARY OF SEARCH, CONT.

Table 1.0 Comparison of percentage of re-dislocation.

Article	Technique	Number of Subjects	Recurrence of Dislocation %	P-Value
Owens	Capsule Shift	9	31%	0.26
	Bristow Latarjet	10	31%	0.25
Bessiere	Capsule shift	93	22%	0.2
	Bristow Latarjet	93	10%	0.23
Rhee	Capsule shift	16	25%	0.14
	Bristow Latarjet	30	12.5%	0.1
Virk	Capsule Shift	58	16%	0.09
	Bristow Latarjet	24	12%	0.08
Bottoni	Capsule Shift	32	0	0.05
	Bristow Latarjet	29	0	0.05
Hubble	Capsule shift	30	3%	0.04
	Bristow Latarjet	20	0	0.04
Lutzner	Capsule Shift	60	15%	0.08
	Bristow Latarjet	48	10%	0.07
Marion	Capsule shift	36	8%	0.54
	Bristow Latarjet	22	0	0.34
Karlsson	Capsule Shift	30	10%	0.29
	Bristow Latarjet	30	0	0.20

Table 1.0 percentage of re-dislocation for each study. P value <0.05 is significant

CLINICAL BOTTOM LINE

- It was found that both procedures produce comparable results.
- The Bristow Latarjet procedure had fewer re-dislocations, but not enough to be considered statistically significant.
- Athletes that re-dislocated were returning to contact sports like football, rugby, or hockey

IMPLICATIONS

- Patients with recurrent shoulder instability in need of surgery should know that the technique used will produce comparable results.
- The physician will select the technique which they are most comfortable with and the patient will not have to worry if one procedure is better than the other.
- Referral for surgical repair before the patient reaches five dislocations is crucial.
- More research is still needed to find a definitive answer to which surgical technique is more suitable to a collegiate athlete.

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