ORTHOSPORTS

QUESTION FOR PHYSIOTHERAPISTS

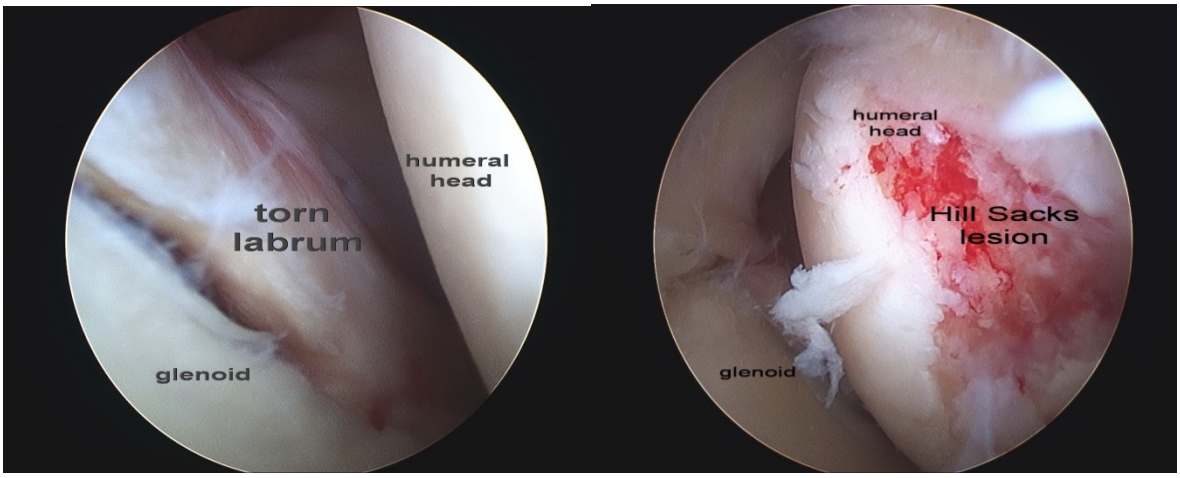
QUESTION | WHAT ARE THE CONSIDERATIONS FOR SURGICAL REPAIR FOR 1ST-TIME DISLOCATERS? DOES IT DEPEND ON AGE? CONSTITUTION? (IE IF GENERALLY HYPERMOBILE?) OVER THE YEARS THE FASHION IN HOW LONG TO IMMOBILISE SHOULDERS AFTER ACUTE DISLOCATIONS HAS VARIED FROM SIX WEEKS TO ZERO AND EVERYTHING IN BETWEEN. WHAT'S THE LATEST FASHION LOCALLY, AND WILL THERE EVER BE AN ALL-TIME "CORRECT" ANSWER?

ANSWER |

This is one of the most controversial topics in orthopaedics.

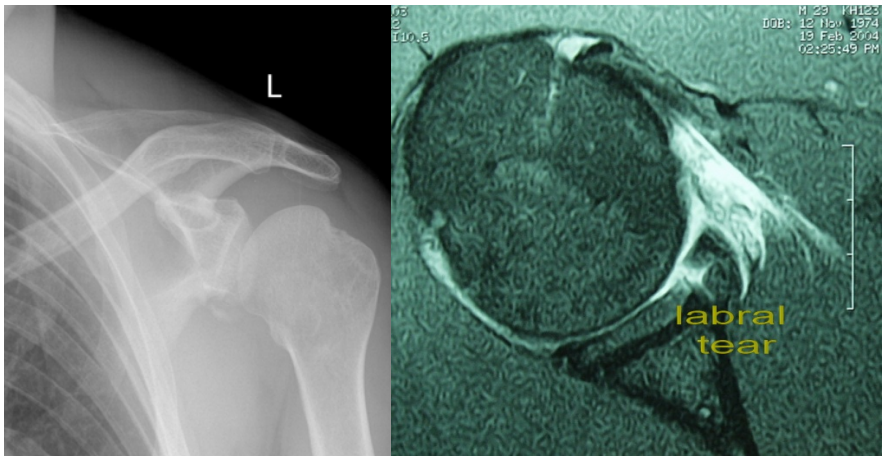
The literature has established that the younger the patient, the higher the risk of recurrence (up to 90% in persons under 20 years) and with each instability episode increasing damage is done to the articular cartilage and other structures of the shoulder (3,5). One can extrapolate from that, that the more frequent the number of dislocations, the higher the risk of developing Glenohumeral arthritis.

When a patient dislocates the shoulder the labrum can tear (a bankart lesion), the capsule is stretched and bony damage can occur to the Humeral head (a Hill Sachs lesion) or Glenoid (a bony bankart lesion).



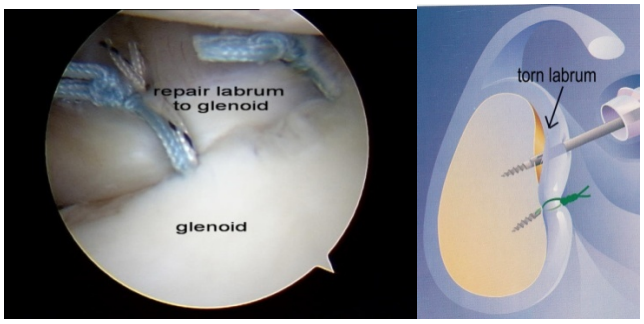
When there is a large labral tear or significant bony damage, the risk of recurrence and more subsequent damage to the joint is very high. This risk is amplified if the patient is young, active and plays contact sports.

My approach to the first time dislocator (6) is to perform a thorough history and examination. I always order plain x-rays to assess the bony damage. Ideally I get an MRI with intraarticular contrast to get a good view of the labrum.

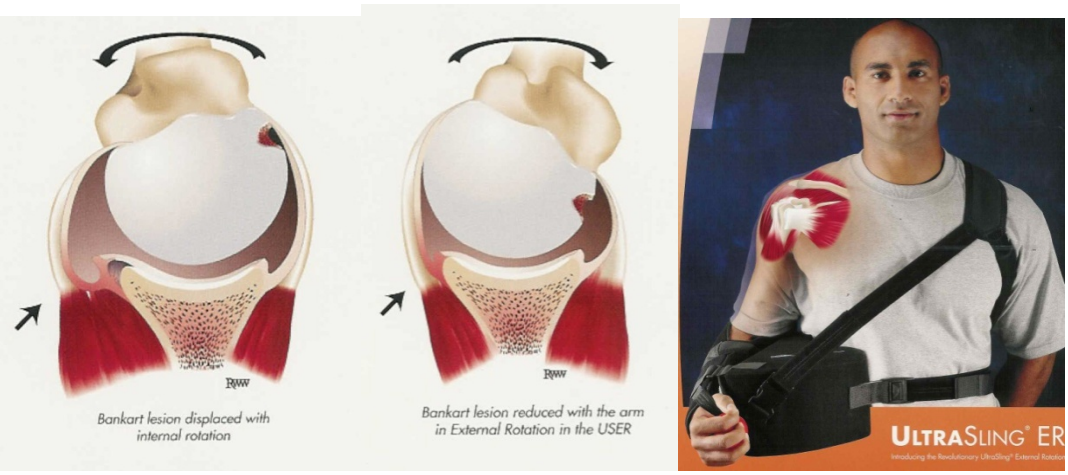


If the MRI reveals no bony or labral damage, I commence physiotherapy immediately. There is no evidence in the literature to suggest that sling immobilisation is of any benefit. Once the shoulder is strong, usually at about 6 to 8 weeks I allow the patient back to full activity. If the dislocation recurs then surgery is recommended.

In these active young patients, if there is a large labral tear I recommend arthroscopic surgery (2) to repair the labrum and reduce the risk of recurrent dislocations. The surgery carries a four to six month rehabilitation period and the success rate is approximately 90%.



There is some evidence to suggest that patients with a labral tear may achieve labral healing if placed in an external rotation brace (4) for three to six weeks. The rationale is that by placing the arm in external rotation the labrum will better approximate the edge of the glenoid and is more likely to heal. Reducing the recurrence rate to 30% has been achieved.



If there is significant bony damage then a larger and more complicated procedure (1) is required to compensate for the bone loss which involves transferring the coracoid process into the defect.

In summary, a dislocated shoulder is not a benign injury and can do significant structural damage to the joint. This damage can be minimised by early surgery in the high risk individual.

Dr Jerome Goldberg

1. Burkhart SS, De Beer JFB. Traumatic glenohumeral bone defects and their relationship to failure of arthroscopic Bankart repairs: significance of the inverted-pear glenoid and the humeral engaging Hill-Sachs lesion. Arthroscopy 2000;16:677-94.

2. Hollinshead R. Arthroscopic Versus Open Repair for Traumatic Anterior Shoulder Instability: A Meta-analysis. Arthroscopy 2005;21: 652 - 658

3. Hovelius L, Augustini BG, Fredin H, Johansson O, Norlin R, Thorling J. Primary anterior dislocation of the shoulder in young patients. A ten-year prospective study. J Bone Joint Surg Am. 1996;78:1677-84.

4. Itoi E, Hatakeyama Y, Kido T, et al. A new method of immobilization after traumatic anterior dislocation of the shoulder: A preliminary study J Shoulder Elbow Surg. 2003;413–415.

5. Matsen FA 3rd, Titelman RM, Lippitt SB, Rockwood CA Jr, Wirth MA. Glenohumeral instability. In: Rockwood CA Jr, Matsen FA 3rd, Wirth MA, Lippitt SB, editors. The shoulder. Volume 2. 3rd ed. Philadelphia: Saunders; 2004. p 655-794.

6. Robinson CM, Jenkins PJ, White TO, Ker A, Will E. Primary arthroscopic stabilization for a first-time anterior dislocation of the shoulder. A randomized, double-blind trial. J Bone Joint Surg Am 2008;90:708-21.