

SUMMARY

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It is interesting to note that the first orthopaedic case , reported in mankind's oldest book , was a dislocation of the shoulder in an epileptic. The original text , which dates back to 3000 to 2500 BC, was not translated until 1930. In the tomb of Upuy [Ramses II in 1200BC] there was a drawing that was strikingly similar to Kocher's method of reduction.

The anterior capsule is inserted into the labrum in 77 % of cases. Its insertion into the neck of the glenoid, observed in 23 % of cases, created a pouch which could be followed from its superior to its inferior margin, and this pouch is distinct from the subscapularis bursa. This pouch corresponds to the redundant anterior capsule without a Bankart lesion seen in 13 to 28 % of patients operated upon for recurrent dislocation of the shoulder. It would thus seen that this pouch is not necessarily traumatic in origin [Uhthoff and Piscopo, 1985].

The tendon of the long head of biceps is one of the most easily identified structures and is therefore a useful landmark for the initiation of an arthroscopic examination of the glenohumeral joint. Starting with the arm in neutral rotation and with progressive external rotation, the biceps tendon can be followed from its origin to its entry into the bicipital groove. By the basic position one can see only a third of the humeral head. In order to visualize most of the articular surface of the head, one has to rotate the arthroscope superiorly and rotate the humeral head internally and externally. Inspection of the labrum should start at the attachment to the biceps tendon to the superior portion of the labrum. The visualization continues anteriorly

and inferiorly while the arm is internally rotated to identify the anterior labrum. With advancement of the scope and internal rotation with slight flexion of the shoulder, the glenohumeral ligaments are sequentially inspected. They appear arthroscopically, smooth and hypermobile when tested by a probe [Neviaser, 1987].

The glenohumeral joint is fashioned with a minimum of bony constraint. The largely spherical humeral head rotates in the shallow, small diameter glenoid cavity. The angle of inclination of the glenoid fossa with 30 degrees retroversion of the humerus, allows placement of the arm above the head. The ligaments of the glenohumeral joint are so constructed and arranged to hold the humeral head in a sling fashion. There are no true collateral ligaments in the shoulder to limit motion in the frontal plane. The gliding mechanisms [scapulothoracic, subacromial, and bicipital] with the acromioclavicular and sternoclavicular synovial joints facilitate the glenohumeral joint to reach its large range of motion, by rotating the clavicle and the scapular spine [Radin, 1978].

The initial injury is responsible for the damage which subsequently leads to recurrence of dislocation. This damage occurs simultaneously to the glenoid rim and soft tissues in front, and the head of the humerus behind. There is an impairment of the restraining anterior labrum-capsular check to forward displacement of the head of the humerus during elevation and outward rotation of the arm. The head is then able to dislocate forwards into a traumatic hernia of capsule lying underneath the damage subscapularis. The associated lesion on the postero-lateral aspect of the humeral head occurs at the time of the initial

dislocation. As the head of the humerus is levered outward across the rim of the glenoid, the articular surface is damaged to a degree varying from mild scarification of the articular cartilage to a deep round-shaped depression [Hill-Sach's lesion] [Kessel, 1982].

Technology, as well as the technical ability of some arthroscopic surgeons, has improved dramatically in recent years. There are only five main methods described for arthroscopic repair of anterior recurrent shoulder dislocation, at the same time three other modifications are mentioned. These could be classified into two types of repair, 1 - Repair by suture.

2 - Repair by different types of fixators.

Repair of recurrent shoulder dislocation by suture was first mentioned by Morgan and Bodenstab 1987. Then, new techniques with the same idea were created by Rose 1989, Maki 1990, and Caspari and McIntyre 1993. Repair by different types of fixators mentioned by Johnson 1986 using staples, Wiley 1988 using rivet, Warren 1991 using acufex suretac system, and Wolf 1990 using suture hooks.

In this technique Bankart lesion was repaired percutaneously and anteriorly under the control of the arthroscopic guides, through a posterior portal, using a very simple curved large aneurysmal needle. By this technique the anterior pouch can be closed following the abrasion of the anterior glenoid rim to obliterate the space at which the humeral head escapes during dislocation. Moreover, this techniqueplicates the anterior shoulder muscles especially the subscapularis as the whole procedure should be performed while the arm internally rotated and

adducted. This plication of the anterior capsule and the anterior shoulder muscles looks like the principle of Putti-Platt operation without open surgery.

The clinical results of this series [94.2 %] appear to have achieved its goal. All these shoulders that gained full painless range of motion particularly external rotation, represent a significant advantage over most standard open anterior procedures and also other arthroscopic techniques. Also, the simplicity and the absence of special instrumentation, special angles, or even special skillness gives this new technique a great potential promise for the future.