Latarjet procedure for treatment of recurrent anterior shoulder dislocation.

Thesis

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ABSTRACT

In this study The majority of problems encountered in the modified Latarjet procedure postoperatively are related to inadequate surgical technique, improper drilling or graft harvesting may lead to intraoperative graft fracture, Our results close to those reported in most published series, in terms of complication rates and postoperative functional scores . Laterjet procedure is good option in patients who wish to practice a competitive sport and are poor candidates for arthroscopic Bankart repair due to bony defects. Labrum saving during laterjet procedure in shows better results as regard patient range of movement and musle power and proprioception compared with those patients whom undergone operation without labrum saving. Using of two screws is better than one screw in fixation of the coracoid graft and gives better results as regard healing.

Keywords:_

- H.A.G.L
- IGHL
- Latarjet procedure

List of Contents

Title	Page No.
Introduction	1
Aim of the Work	2
Review of Literature	
Anatomy	4
Biomechanics	11
Pathological anatomy	23
Diagnosis	32
Patients And Methods	52
Results	77
Discussion	94
Case Presentation	103
Conclusion	121
Summary	122
References	131
Arabic Summery	

List of Tables

Table No.	Title	Page No.

Table (1): Beighton scale for ligamentous laxity 37

Table (2): I.S.I.S score 52

Table (3): Sex of patients percentage of each group 53

Table (4): Affected side percentage of each group 54

Table (5): Dominant side percentage of each group 55

Table (6): Heavy work percentage of each group 57

Table (7): Amount of humeral head loss 59

Table (8): Amount of Glenoid bone loss. 61

Table (9):Rowe score 66

Table (10): Saving labrum percentage 83

Table (11): Number of scews percentage 85

Table (12): Graft position percentage 87

Table (13): Graft union percentage 89

Table (14): closed-kinetic chain activity test 91

Table (15): Chi-Square Tests 92

Table (16): Comparison between our study and other studies as regard number of patints,mean age, time of follow up and post operative score. 98

Table (17): Comparison between our study complication and other studies. 98

List of Figures

Fig. No.	Title	Page No.
Fig (1):	Shoulder antomy Anterior view	3
Fig (2):	Shoulder antomy interior view	4
Fig (3):	Shoulder antomy sagital view	4
Fig (4):	Glenoid and soft tissue restrains	8
Fig (5):	Concavity- compression	10
Fig (6):	Glenoid concavity	11
Fig (7):	Glenoid center line	12
Fig (8):	Glenoidogram	12
Fig (9):	Stability ratio	13
Fig (10):	Stability angle	14
Fig (11)	Centers of rotation	18
Fig (12):	Muscle force	19
Fig (13):	Hill–Sachs defect	22
Fig (14):	Articular arc mismatch	23
Fig (15):	Engaging Hill-Sachs lesion	24
Fig (16):	Glenoid track and Hill-Sachs lesion	25
Fig (17)	CT scan of large fracture involving anterior glenoid:	26
Fig (18):	Bankart lesion	27
Fig (19):	Arthroscopic view	28
Fig (20):	ALPSA lesion	28
Fig (21):	Apley “scratch”test	33
Fig (22):	Passive flexion of shoulder	33
Fig (23):	Passive extension of shoulder	33
Fig (24):	Passive movement testing of shoulder abduction.	34
Fig (25):	Passive internal rotation	35
Fig (26):	Passive external rotation.	35
Fig (27):	ligamentous laxity	36
Fig (28):	Hyperlaxity of the elbows	37
Fig (29):	Anterior instability test	39
Fig (30):	Apprehension test	39
Fig (31):	Relocation test	41
Fig (32):	Anterior Release Test	41
Fig (33):	Posterior drawer of the shoulder	42
Fig (34):	Sulcus sign	43
Fig (35):	Anteroposterior view of shoulder	44
Fig (36):	True AP view of the shoulder	45
Fig (37):	Axillary view	45
Fig (38):	CT scan of the glenohumeral joint	47
Fig (39):	3D CT reconstruction showing a posterolateral humeral head defect	47

Fig (40):.. 3D CT reconstruction showing anterior glenoid avulsion 47
Fig (41): MRI of glenoid. 50
Fig (42): Sex distubution percentage 54
Fig (43): Affected Side percentage 55
Fig (44): Dominant Side percentage 56
Fig (45): Heavy work percentage 58
Fig (46): Amount of Humeral head loss 59
Fig (47):Graph of Humeral head loss 60
Fig (48): Amount of glenoid loss. 61
Fig (49): Graph of Humeral head loss 61
Fig (50): Draping 68
Fig (51): skin incision 69
Fig (52): approach 69
Fig (53): coracoid process ostotmy 70
Fig (54): coracoid process decortication. 70
Fig (55):. vertical arthrotomy 71
Fig (56): Coracoid fixation. 72
Fig (57): Compression of the graft 75
Fig (58): Stability graph. 76
Fig (59): Mobility graph 77
Fig (60). Function graph 78
Fig (61): Postoperative clinical score 79
Fig (62):Dynanometer 80
Fig (63):Patient assessment by Dynanometer 80
Fig (64):Inclinometer 81
Fig (65): Patient assessment by Inclinometer 82
Fig (66): Saving the labrum graph 83
Fig (67): Number of screws graph 85
Fig (68): Graft union graph 86
Fig (69): Graft position graph 87
Fig (70): Bernageau view graph 88
Fig (71):Graft union graph 89
Fig (72): closed-kinetic chain activity test 90
Fig (73): closed-kinetic chain activity graph 91

List of abbreviations

GHL	**Glenohumeral ligament**	**5**
CHL	**Coracohumeral ligament**	**6**
CAL	**Coracoacromial ligament**	**7**
IGHL	**Inferior Glenohumeral ligament**	**27**
A.L.P.S.A	**Labroligamentous periosteal sleeve**	**28**
H.A.G.L	**Humeral Avulsion of the Glenohumeral ligament**	**29**
B.H.A.G.L	**Bony Humeral Avulsion of the Glenohumeral ligament**	**29**
E.R	**External Rotation**	**40**
A.P	**Antroposterior**	**44**
C.T	**Computed Tomography**	**46**
3D	**Three Dimention**	**47**
M.R.I	**Magnetic Resonance imagining**	**48**
I.S.I.S	**Instability severity score index**	**51**
RT	**Right**	**54**
Lt	**left**	**54**
W	**Width**	**60**
H	**height**	**60**
Pst:	**Post operative**	**76**
Sec	**Second**	**100**

Introduction

The shoulder is the most mobile joint in humans; its wide range of movement predisposes to a high susceptibility to dislocation. 50% of all joint dislocations involve the shoulder, particularly in young people. 95% of shoulder dislocations are anterior-inferior; posterior dislocations account for 3% and other types 2%. Dislocations of the shoulder may be traumatic or non-traumatic. When traumatic, they result from a direct force on the joint or an excessive vectoral force inducing humeral head dislocation. Non-traumatic dislocations may be associated with a dysplastic glenoid. [1]

Recurrent anterior shoulder dislocation is a common diagnosis in young, active people. Surgical stabilization of the glenohumeral joint is indicated when recurrent dislocation causes discomfort or when pathology is involved. Operative treatments vary, but all have the purpose of reinforcing the anterior and inferior aspect of the glenohumeral joint. [2]

Latarjet procedure may be a superior open surgical treatment for recurrent anterior glenohumeral dislocation, so long as the surgeon is familiar with the technique. Although it is a non anatomical repair, it provides desirable functional resultwith

respect to subjective postoperative range of motion, stability, and subjective scorings. [3]

Latarjet procedure provides better terms of stability and range of motion obtained with a bankart –type repair long term experience with the procedure make it easy ,safe, and quick to perform .no need for immobilization or motion limitation during rehabilitation, Faster resumption of activities of daily living and all types of sport more quickly than with a capsular repair. [4]

Aim of the work

This study aims to analyze the functional and radiological outcome of the latarjet procedure in patients with recurrent anterior glenohumeral dislocation.

Shoulder Joint

- **Articulation:** This occurs between the rounded head of the humerous and the shallow, pear-shaped glenoid cavity of the scapula. The articular surfaces are covered by hyaline articular cartilage, and the glenoid cavity is deepened by the presence of a fibrocartilaginous rim called the glenoid labrum. [(5)]
- **Type**: Synovial ball-and-socket joint.
- **Capsule**: This surrounds the joint and is attached medially to the margin of the glenoid cavity outside the labrum; laterally it is attached to the anatomic neck of the humerus **(Fig 1)**. The capsule is thin and lax, allowing a wide range of movement. It is strengthened by fibrous slips from the tendons of the subscapularis, supraspinatus, infraspinatus, and teres minor muscles (the rotator cuff muscles). [(5)] **(Figures 2, 3)** [(5)]

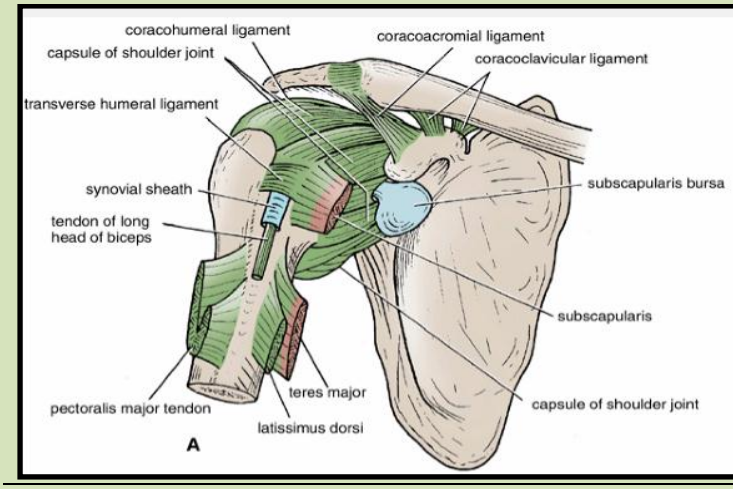

Figure 1: Shoulder joint and its relations. A Anterior view. [(5)]

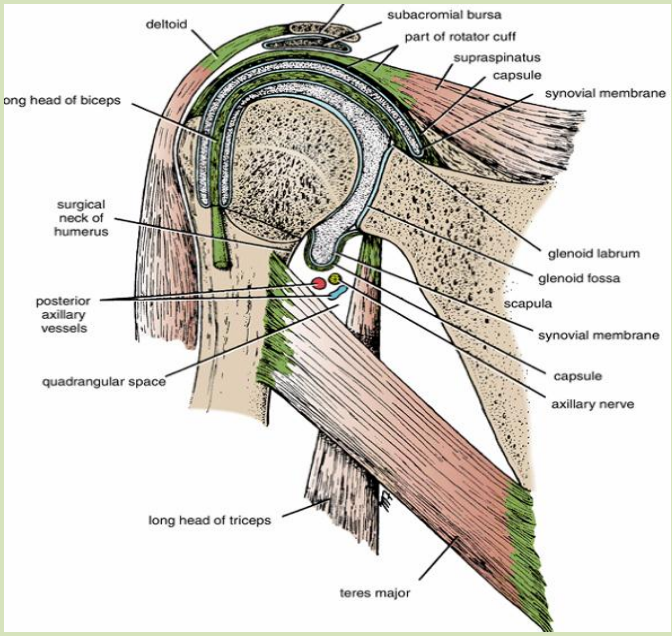

Figure 2: Interior of the shoulder join. [5]

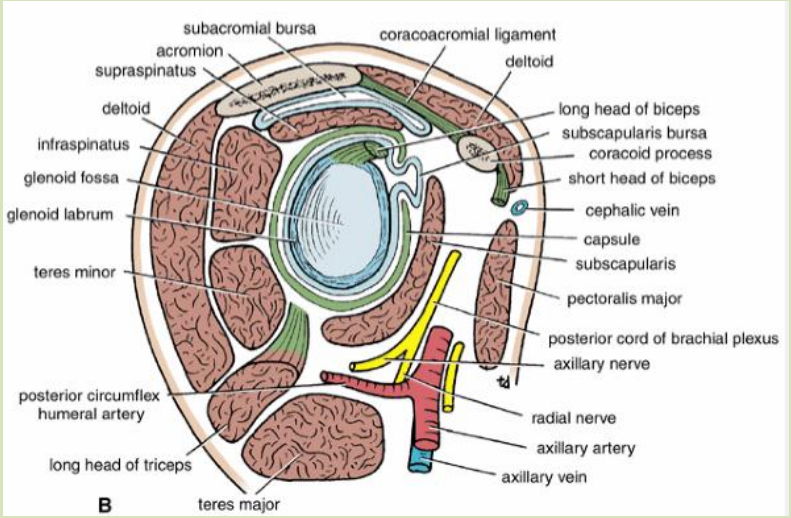

Figure 3: Shoulder joint, sagital view. [5]

- **Ligaments**: There are three focal areas of thickening of the capsule, known as the glenohumeral ligaments (GHL), that act as "check-reins" to excessive rotation or translation of the humerus. Running from the inferior aspect of the humeral head, or the humeral neck, these structures insert or coalesce with the glenoid labrum. [١]
  - **Superior Glenohumeral Ligament**: The superior GHL, running from the supraglenoid tubercle above the glenoid face to the lesser tuberosity of the humerus, has a parallel course to the coracohumeral ligament. The two are felt to act together as a restraint to inferior translation and external rotation of the humeral head with the arm resting at one's side (position of adduction). [6]
  - **Middle Glenohumeral Ligament :** The middle glenohumeral ligament is the most variable, with some patients having a so-called "cord-like" middle GHL, known as a "Buford complex", and up to 30% of patients being deficient of this ligament altogether . It also runs from the supraglenoid tubercle to the lesser tuberosity, although some fibers coalesce with the subscapularis before its insertion on the lesser tuberosity. [7] During abduction, the middle GHL becomes taut, limiting further external rotation of the

humerus in this position. Maximal tension in the middle GHL is reached at approximately 45º of abduction, at which point it is also able to resist anterior translation of the humeral head in this position. [7]

- **Inferior Glenohumeral Ligament**: The inferior GHL is a hammock-like structure, with origins from both the anteroinferior and posteroinferior aspects of the glenoid. This ligament has two separate bands, an anterior and posterior band with an intervening segment of capsule. The anterior band inserts at the inferior margin of the articular surface of the humeral head, just below the lesser tuberosity. In abduction with the arm externally rotated, the so-called 'position of apprehension', the anterior band of the inferior GHL moves to the front of the shoulder where it is maximally taut and serves to resist anterior translation of the humeral head. [8]
- **Coracohumeral Ligament:** The coracohumeral ligament (CHL) is a broad ligament originating from the superior portion of the joint capsule at the base of the coracoid process and inserting on the greater tuberosity. This acts in conjunction with the superior GHL, as described above, along with the anterior joint capsule to make up the "rotator interval", which functions to resist inferior translation of the humeral head in adduction.