## Arthroscopy in the Resistant Frozen Shoulder

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Frozen shoulder

" headache in the shoulder joint"

primary: - idiopathic

secondary: - intrinsic, extrinsic and systemic

. Codman EA,1934 a condition difficult to define, to treat and explain from the point of pathology

. Neviaser JS, 1945 adhesive capsulitis

obliterated by dense adhension btw. the humerus and glenoid

Pathology of FS

intra-articular : capsule

glenohumal lig.

complex

subcapsular motion interface

extra-articular: coracohumeral ligament

humeroscapular motion interface

associated pathology: impingement lesion

secondary subacromial space inflammation

calcific tendinitis
ACJ arthritis

associated disease: D.M

thyroid disorder

Th.

congential heart failure cerebral infarction

hypertension

## clinical presentation of FS

Reeves, 1975

painful phase

adhesive or frozen phase

thawing phase

Arthroscopic findingds in FS

Nevlaser TJ, 1987

stage I : fibrous synovitis

stage II: proliferative synovitis and adhesion

stage III: capsular contracture, loss of axillary fold

stage IV: capsular restructure, marked adhesion and no

synovitis

Conservative treatment of resistant FS

physical theraphy steroid injection sustained traction hydrautic distension

Operative treatment of resistant FS

manipulation under anesthesia coracohumeral ligament release open release arthroscopic release

Arthroscopy in FS

procedure: distension of the joint

debridement for abnormal synovial structure release for abnormal capsular thickening

advangement: . identification of the asso. pathology

. visualization of the asso, lesion after

manipulation

indication: . primary FS

- . secondary FS
- . no improvement with conservative treatment
- . progression of stiffness

contraindication: . severe osteopenia

. reflex sympathetic dystrophy

. previous surgery

. previous fracture or fracture dislocation

Arthroscopic technique in FS

interscalene block anesthesia

beach chair position

portails; anterior and posterior portal for the shoulder joint lateral portal for the subacromial space

surgical technique

- . distension
- through the anterior portal shaving the inflammed synovium, rotator interval, SGHL and biceps

relaese thickened MGHL
reopening obliterated subscapular and inferior recess
through the lateral portal
debridement subacromial space
release CAL
acromioplasty

Manipulation after arthroscopy and postoperative care

- . elevation in the scapular plane
- . external rotation at varying degrees of abduction
- . internal rotation
- . physical therapy on the day of arthroscopy

MATERIALS: Jan. 1992 - Dec, 1994

average F/up: 18months

27pt.(M:F = 11:16)

peak ages :50

non-dominant: 17 dominant: 10

average preoperative ROM: forward flextion -110

ERs -25

IRp -L5

preoperative pain: mild -20%, moderate \ 55%,

severe -25%

preoperative ADL: a. wash back 55%

b. manage toiletting 40%

c. comb hair 50%

d. put the coat 60%

X-ray finding (27 pt)
osteoporosis 22%
osteophyte 15%
sclerosos of the greater tuberosity 19%
decreased AH interval 7%
Ultrasonography (20 Pt)
subacromial bursitis 50%
effusion in biceps tendon

effusion in biceps tendon limitation of sliding movement during lateral elevation of the arm 40% arthroscopic finding

shoulder: synovitis at anterior superior capsule 100% synovitis of the biceps tendon 38% obliteration of the subscapular fossa 69% subacromial space: thickened subascromial bursa 33% abrasion and fraying 33%

postoperative result pain relief:93% complete 74%

Intermittent 19%

Persistent pain 7%

Rom; forward flexion 175'

ERs 70' IRp T10'

ADL; Improvement for manage toiletting is most difficult shoulder rating score; preop - 45, postop -82

## **SUMMERY**

- arthroscopic release in treatment of refractory FS increased ROM pain relief
- . further evaluation with long terms follow up and more critical scientific study to clarify knowledge about the refractory frozen shoulder would be requested