

주관절 강직의 수술적 치료

이석범 정형외과 관절클리닉

이 석 범

Post-traumatic Elbow Stiffness

INCIDENCE

- 5% of all elbow injuries results in ankylosis
- Fractures~10 %
- Dislocation~20 %
- Fracture & Dislocation~40 %
- Condylar fractures~12 % of total incidence
- Stiffness related to length of immobilization & ill-informed intervention

Post-traumatic Elbow Stiffness

Pathology

Intra-articular: Articular Adhesion
Articular Deformity
Extra-articular: Post & Ant Capsule
Osseous Bridge

The Stiff Elbow (Common Pathology)

- Caps contracture almost always present
- Intrinsic causes usually have extrinsic contractures as well
- Altered structural & biomech. properties
- Greatly reduced joint capacity (20 ml → 5 ml)

STIFF ELBOW

Indications for Surgery

- Failed conservative treatment
- > 1 year duration of contracture
- Loss of extension > 30~45°

- Flexion < 120°
- Indications after individualized

| Relationship of Major Sx to Preferred Treatment | |
|---|--------------------------|
| Dominant Symptom | Surgical Treatment |
| Loose body | Arthroscopy |
| Extension loss | |
| Mild | Arthroscopy / Column |
| Moderate | Column |
| Flexion loss | Column |
| Impingement pain | Ulnohumeral Arthroplasty |
| Ulnar nerve symptom | Ulnohumeral Arthroplasty |
| Extensive motion loss | Total Elbow Replacement |
| Pain full arc; age > 60 | Total Elbow Replacement |

THE STIFF ELBOW

“Always”-mixed

“Never”-just osseous

“Adhesions” Last to go: open

First to go: ascope

Beware: adhesions avulse cartilage

Surgical Technique

“COLUMN PROCEDURE”

Indications

- Marked limitation of flexion and/or extension
- Extrinsic pathology: traumatic arthritis
- Anterior contracture &/or Posterior contracture

“COLUMN” PROCEDURE

TECHNIQUE

- Posterior or lateral incision
- Modified Kocher lateral approach
- Elevate muscles from supracondylar ridge

- Excision of capsule (front and back)
- Limited procedure, isolated removal of impingement of little value

COLUMN PROCEDURE

Advantages:

- Simple operative technique
- Rapid post-op. recovery
- Early return of function
- No loss of stability
- Ability to approach both front and back

THE STIFF ELBOW

BEWARE of REBOUND:

LOSE: 15~20 deg, Post Op

Indication of UHA

- Extensive humeral osteophyte
- Impingement pain
- Ulnar nerve symptom

Traumatic Arthritis of the Elbow

- Limited Interest
 - No functional position
 - High complication
 - Sepsis
 - Non-union~10%
 - Humeral fx~15%

Ix: Sepsis, Young, High demand
Traumatic Arthritis of the Elbow

- INDICATIONS
 - Non-septic
 - Less than 55yrs (+/-)
 - Gender: m>f