IDIOPATHIC ADHESIVE CAPSULITIS

Univ. S California

JAMES E. TIBONE,M.D

I. Definition

- A. Frozen Shoulder (Codman)
 - -same as adhesive capsulitis (J.S. Neviaser)
- B. No significant intrinsic shoulder pathology
 - 1. No DJD
 - 2. No trauma
 - 3. No surgical arthrofibrosis
- C. No Cause of shoulder stiffness identified
- D. Restriction of both passive and active shoulder ROM Passive motion
 - 1. <100 degrees abduction
 - 2. >50% external rotation opposite shoulder

II. Natural History

- A. Codman(1934) ' Even the most severe cases recover with or without treatment in about two years '
- B. Recent studies show that there is a residual restriction of motion In 40~60% of patients
- C. Functional limitations are only mild

III. Pathology

- A. Decreased capsular volume
 - 1. Loss of axillary pouch
 - 2. Loss of subscapularis bursa
- B. Chronic inflammatory response
 - 1. Synovium
 - 2. Capsule
 - a) increase in cytokines (growth factors)
- C. Contracted rotator interval
- IV. Clinical Course
 - A. Painful inflammatory" freezing phase "

- B. Frozen phase
- C. Thawing phase
 - 1. Each phase lasts approx.4-6 months
- V. Office Work Up
 - A. History and physical
 - B. X-rays r/o tumor, DUJD, Ca++
 - C. Arthrogram confirms diagnosis but is not necessary
 - D. MRI not necessary
 - E. Send to internist for medical work up and blood test to r/o diabetes and thyroid disease

VI. Treatment Options

- A. Benign neglect
 - 1. patients do not want to wait 1~2 year
- B. anti-inflammatory medications
 - 1. NSAID & usually not helpful
 - 2. oral corticosteroids
 - a) helpful in some patients in the freezing phase
 - b) use only for short time period (i.e. Medrol dose pak)
- C. Cortisone Injections
 - 1. Should be intra-articular
 - 2. Can be helpful
 - 3. Difficult to tell in the office if you are in joint
- D. Physical therapy
 - 1. Efficacy?
 - 2. Expensive
 - 3. Can make patient worse by vigorous stretching
 - a) Increase inflammation
 - b) Increase stiffness
 - 4. A good therapist can help by making patients do their own exercises
 - 5. I will try one 6 week course of PT, then evaluate patient
- E. Distending joint with fluid
 - 1. During arthrography
 - 2. Office management of frozen shoulder (Fareed, CORR, 1989)
- F. Close manipulation with arthroscopy
 - 1. Only necessary in small % of patients
 - 2. Recommend after no improvement in motion after 3 months with a shoulder that only externally rotates to neutral
- G. Closed manipulation with arthroscopy

- 1. arthroscopy may improve the results
- 2. Confirms pathology i.e., synovitis and visualizes capsular tearing
- H. Arthroscopic Capsular Release
 - 1. Valuable in patients that are osteopenic and difficult to manipulate
 - 2. Not as destructive as a manipulation
 - 3. Can release rotator interval, anterior capsule, and posterior capsule
 - 4. I release from 1 to 5 in front and 7 to 11 in back. If full elevation is not obtained, a gentle manipulation will tear inferior capsule (can arthroscopically divide the axillary panel through a posterior portal but must be careful not to injure axillary nerve
- I. Open capsular release
 - 1. Not needed in idiopathic frozen shoulder

REFERENCES

- 1) Andersen NH., Johannsen HV., Sneppen O., and Sojbjerg JO.: Frozen shoulder. Arthroscopy and manipulation in general anesthesia, followed by early passive mobilization. Ugersk Laeger 158: 147-50, 1996.
- 2) Neviaser RJ., Neviaser TJ.: The frozen shoulder: diagnosis and management. Clin Orthop 223: 55-64, 1987.
- 3) Pollack RG, Duralde XA, Flatow EL, Bigliani LU.: The use of arthroscopy in the treatment of resistant frozen shoulder. Clin Orthop 304: 30-36, 1994.
- Schaffer B., Tibone JE., and Kerlan RK.: Frozen shoulder: a long-term follow up. J Bone Joint Surg 74A: 738-746, 1992.
- Segmuller HE., Taylor DE., Hogan CS., Sales AD., Hayes MG.: Arthroscopic treatment of adhesive capsulitis. J Shoulder Elbow Surg 4:403-8, 1995.
- 6) Hannafin JA., Chialia TA..: Adhesive capsulitis: A treatment approach. Clin Orthop Rel Res. 2000 372: 95-109.
- Diercks RL., Stevens M.: Gentle Throwing of the frozen shoulder: A prospective study of supervised neglect versus intersive physical therapy in seventy-seven patients with frozen shoulder syndrome followed up to two years. J Shoulder Elbow Surg. 2004 13 (5): 499-502.
- 8) Farrel CM., Sperling JW., Cofield CH.: Manipulation for frozen shoulder: long-term results. J Shoulder Elbow Surg. 2005 14(5) 480-484.
- 9) Ogilvie-Harrus et al.: The resistant frozen shoulder manipulation versus arthroscopic release. Clinic Orthop. 1995: 319: 238-248.
- Warner JT., et al.: Arthroscopic release for chronic refractory adhesive capsulitis of the shoulder. J Bone Joint Surg Am. 1996. 78(12): 1808-1816.