



**SPOON LESION; THINNING AND REDUNDANCY OF THE SUPRASPINATUS TENDON CAUSING SUPERIOR INSTABILITY AND DYNAMIC IMPINGEMENT – A NEW PATHOLOGY DESCRIPTION; DIAGNOSIS AND ARTHROSCOPIC TREATMENT AND RESULTS**

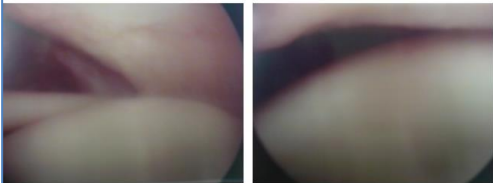
**Mohamed Kotb MD, Basim Fleega MD**

**Shoulder Service Global Orthopedic Clinic Giza, Cairo EGYPT / Orthopedic Department University Hospital , Asyut University, Asyut, EGYPT**

**Aim**

Overuse of shoulder elevation over 80 degrees abduction can produce repeated micro-trauma to the critical hypo-vascular area of the supraspinatus tendon leading to increased fibrous tissue in the tendon and thus causing its elongation that makes the head of the humerus is no longer secured in the inferior glenoid fossa with upward migration of the head by the over pulling of the deltoid.

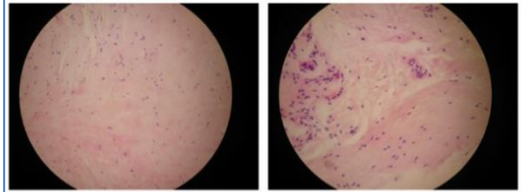
**BALOOING WITH WATER PRESSURE**



INFLOW PRESSURE

NO PRESSURE

**Fibroses of the lateral end of the Supraspinatus**



**Spoon Lesion**

NOT A PARTIAL TEAR

REDUNDANCY OF THE LATERAL END OF THE SUPRASPINATUS TENDON CAUSING SUPERIOR GLENOHUMERAL INSTABILITY AND IMPINGEMENT

Age : between 20 and 50 years  
Mainly FEMALES  
Resistant Impingement Symptoms  
Persistent Symptoms after SAD



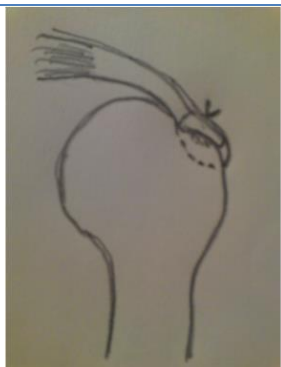
**Spoon Lesion**

ARTHROSCOPIC RESECTION OF THE TENDON AT ITS INSETION



**Spoon Lesion**

REPAIR AND REAFING OF THE TENDON CAUSING REGAIN OF STABILITY



**AFTER REPAIR**





Arthroscopic increasing of water filling pressure of the glenohumeral joint shows ballooning of the tendon giving a spoon-like shape which diminishes with lowering of the pressure (Spoon phenomena) as described by the second Author. The symptoms are mainly secondary impingement not responding to conservative treatment due to superior dynamic instability. To establish a sound strong supraspinatus tendon for superior stability and function a transosseous repair was done.

### Methods

This work was done on 38 patients 8 males and 30 females. 13 patients were below 40 years of age, 20 between 40 and 50 and five above 50y, they were between 26 and 73. All showed ballooning of the tendon on MRI and had a positive intra-arthroscopic spoon phenomena. 21 cases had a previous failed arthroscopic subacromial decompression. The average follow up was 16 months (between 7 and 31). A biopsy was taken from 10 cases showed increased fibrin cells compared to normal tendon.

Resection with tension transosseous suture refixation using the Giant needle technique was done to all cases. We used the Neer score to evaluate the postoperative results.

### Results

The improvement in the score of pain and score of function were dramatically obvious progressing with time at 6w, 3m, 6m and one year. They achieved improvement in the score from unsatisfactory to excellent in 35 cases and satisfactory in three. The postoperative rehabilitation program took 3 to months. In 4 patients the postoperative rehabilitation took 5 to 8 months. The preoperative superior instability impingement pain was diminished in all patients postoperatively.

### Conclusions

This study showed the explanation of many cases of impingement like symptoms of the shoulder not responding to treatment although there is no subacromial narrowing nor partial tear. The radiological evaluation, spoon phenomena and the histological findings are clear signs of the lesion.