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**Dr. Alizayagam N Hasan**  
Senior Resident, Banas Medical  
College and Research Institute,  
Palanpur, Gujarat, India

**Dr. Parth A Trivedi**  
Consultant Orthopaedic Surgeon,  
Lions Hospital, Palanpur,  
Gujarat, India

## Early mobilisation versus sling immobilisation following Arthroscopic shoulder stabilisation: A prospective randomised controlled trial

**Dr. Alizayagam N Hasan and Dr. Parth A Trivedi**

### Abstract

This Study compared the clinical outcomes following Arthroscopic shoulder stabilization between Early mobilization versus Sling Immobilisation. At the time of this analysis, 28 patients had been recruited into study. 6 patients were lost to follow up. Basic demographics of both were similar. 9 patients had reached their final 2 year follow up. The average follow up for the remaining 13 patients was 8.4 months at the time of this presentation. There was a statistically significant improvement in OSIS from pre-op to the point of most recent follow up in both SI ( $p=0.0004$ ) and EM ( $p=0.0001$ ) groups.

Average OSIS scores were marginally better in the EM group than SI group. However, there was no significant difference in scores. They improved in both groups with time. Similar trends were observed in WDS scores.

No episodes of recurrence were noted in the EM group. In the SI group, one patient had a further dislocation at one year. Another patient in the SI group required an arthroscopic capsular release for severe post-operative capsulitis. No patients in the EM group had stiffness.

**Keywords:** Arthroscopic shoulder stabilisation, prospective randomised trial, outcome between early mobilization versus sling immobilisation

### Introduction

Arthroscopic shoulder stabilization, with repair of the anterior labral Bankart lesion, is the treatment of choice in our unit for recurrent anterior shoulder instability. There is, however, a lack of consensus regarding postoperative rehabilitation with most surgeons advocating immobilisation for up to six weeks following surgery to allow the capsule-labral complex to heal and prevent recurrence. One of the risks of prolonged immobilization is shoulder stiffness. Advocates of early mobilization argue that there is no apparent increased risk of recurrence and excess stiffness is avoided.

### Aim

The aim of study is to access the recurrence rate and shoulder function in patients following arthroscopic stabilization of the shoulder with two different rehabilitation regimes.

### Objectives

1. Primary outcome measure was Oxford Shoulder Instability Scores (OSIS) at years.
2. Secondary outcome measures were OSIS and Walch- Duplay Score (WDS) at 3, 6, 12 weeks, 6 months, 1 and 2 years.

### Materials & methods

This was a prospective randomized control trial. All patients undergoing Arthroscopy Stabilisation Shoulder surgery for recurrent instability (TUBS-Traumatic, Unilateral, anterior with Bankart lesion usually requiring Surgery) were included. Patients undergoing revision surgery or with a diagnosis of AMBRI (Atraumatic, Multi-direction, Bilateral, respond to Rehab and rarely require inferior capsular shift surgery) were excluded.

Study subjects were randomized to either early mobilization (EM) or sling immobilisation (SI) group on the day of surgery. EM group was allowed to move the shoulder freely as pain allows immediately post-operatively. They were given a sling for comfort for the first few days.

### Correspondence

**Dr. Alizayagam N Hasan**  
Senior Resident, Banas Medical  
College and Research Institute,  
Palanpur, Gujarat, India

The only restriction in movement is abduction to 45 degree and external rotation to 0 degree. SI group was kept in a sling for total of 6 weeks with gradual increase in movement after 3 weeks. They were followed up in clinic at the above time intervals and asked to fill OSIS and WDS.

### Results

At the time of this analysis, 28 patients had been recruited into study. 6 patients were lost to follow up. Basic demographics of both were similar. 9 patients had reached their final 2 year follow up. The average follow up for the remaining 13 patients was 8.4 months at the time of this presentation. There was a statistically significant improvement in OSIS from pre-op to the point of most recent follow up in both SI ( $p=0.0004$ ) and EM ( $p=0.0001$ ) groups.

Average OSIS scores were marginally better in the EM group than SI group. However, there was no significant difference in scores. They improved in both groups with time. Similar trends were observed in WDS scores.

No episodes of recurrence were noted in the EM group. In the SI group, one patient had a further dislocation at one year. Another patient in the SI group required an arthroscopic capsular release for severe post-operative capsulitis. No patients in the EM group had stiffness.

### Discussion

We have presented the early results from our prospective randomized control trial. The OSIS improved in both groups. No difference between groups. Only 3 complications-all occurred in SI group. High rates of loss to follow up was due to patients being young males, in whom a significant proportion in worker, and this population is globally mobile, or find time for follow up.

Our results to date do not seem to show any advantage of prolonged sling immobilization in the post-operative period. The study is ongoing and we await with interest the final results.

### Conclusion

This study has shown that there was no advantage in immobilizing patients after shoulder stabilization surgery.

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