

## Modified Bosworth, Revision with Cable and Domino Following the Complication of Screw Loosening

### Presentation of Case

## Modifiye Bosworth, Vida Gevşemesi Komplikasyonu Sonrasında Kablo ve Domino ile Revizyon

### Olgu Sunumu

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### ABSTRACT

There are many surgical treatment options available for the acromioclavicular joint dislocations. The modified Bosworth technique is an accepted technique due to both facility of application and best results. In the literature the complication of screw loosening reaching to 10% following the modified Bosworth technique has been reported. In our opinion is not reliable to ensure fixation again the same technique as a result of loosening of the screw. The fixation with cable and domino is an easy and reliable technique which may be used also in the primer surgery.

**Keywords:** *Acromioclavicular dislocations,  
Modified Bosworth, Revision*

### ÖZET

Akromiyoklaviküler eklemin çıkıklarında bir çok cerrahi tedavi seçeneği mevcuttur. Modifiye Bosworth tekniği gerek uygulama kolaylığı gerekse sonuçlarının iyi olması nedeniyle kabul görmüş bir tekniktir. Literatürde modifiye Bosworth tekniği sonrasında %10'lara ulaşan vida gevşemesi komplikasyonu bildirilmiştir. Vidanın gevşemesi sonucunda tekrar aynı teknikle tespit sağlanması bizce güvenilir olmayacaktır. Kablo ve domino ile tespit primer cerrahide de kullanılabilir, uygulaması kolay ve güvenilir bir tekniktir.

**Anahtar Kelimeler:** *Akromiyoklaviküler çıkık, Modifiye Bosworth, Revizyon*

## INTRODUCTION

The treatment at the Type IV, V, VI dislocations of acromioclavicular joint is surgical. The type I and type II cases may be treated successfully as conservative. However for the treatment of type III cases discussions are still current (1).

The reoccurrence rate following the treatment of acromioclavicular joint dislocation is 10%. The modified Bosworth technique is a success proven method in the achieving of sufficient shoulder functions with the facility of application, low complication rate and low arthritis rate following trauma in the surgical treatment of acromioclavicular dislocations (3,4,5,6,7). The loosening of screw is an important complication which may affect the success of the operation. It is quite hard to provide a stabile fixation with the same technique at revision.

## PRESENTATION OF CASE

Male patient aged 40, has been operated in our clinic with reason of Type V acromioclavicular dislocation with Modified Bosworth technique (Figure 1). One month after the operation he has applied to our polyclinic with complaint of deformity and pain at shoulder. At the controls made it has been seen that the joint has re-dislocated and the screw has been loosened. In the revision operation of the patient, cable and domino have been used as coracoclavicular fixation material (Figure 2). The joint has been easily reduced with the stretching of the cable. The link reparation has been made. In the third postoperative day, the shoulder sling has been removed. The shoulder movement certainty exercises have been commenced in the first week. Two weeks later the sutures have been removed. In the two months monitoring of the patient, any complaint or complication has not been observed.



**Figure 1:** The left shoulder antero-posterior graphics of first preoperative and early postoperative period of the patient.



**Figure 2:** Left shoulder antero-posterior graphics before the revision and following one month of the revision, of patient.

## DISCUSSION

There are many surgical treatment options available for the acromioclavicular joint dislocations. The modified Bosworth technique is an accepted technique due to both facility of application and best results.

In the literature the complication of screw loosening reaching to 10% following the modified Bosworth technique has been reported. In the study of 34 subjects made by Bektaşer et al. In the monitoring of the subjects operated by them with Modified Bosworth technique, who all had Tossy Type III dislocation, screw loosening in rate of 8,8% has been developed. The reoccurrence cases, have been treated with Weaver-Dum technique (coracoclavicular ligament transfer to distal clavicle) (4). In the other study made by Broos et al 87 patients having Tossy Type III dislocation have been treated with Bosworth screw or Wolter plaque and in the approximate 4,3 years monitoring time they have reported insufficiency of implant in rate of 16% and dislocation reoccurrence in rate of 25%. Reoccurrence has been developed one month after the operation at our subject. A stabile fixation has been provided with cable and domino. Any problem has not been countered in the two months monitoring period.

At acromioclavicular dislocation one of the most important factors is providing a stabile fixation for the success of surgical treatment.

In our opinion is not reliable to ensure fixation again the same technique as a result of loosening of the screw. The fixation with cable and domino is an easy and reliable technique which may be used also in the primer surgery.

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