

# Infected shoulder joint with loose Suture Anchor in the joint after Bankart's Repair- A Case Report

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## What to Learn from this Article?

Cases presenting with severe pain and restriction of movements after arthroscopic procedure, first and foremost rule out any chances of infection followed by removal of any foreign bodies and thereafter proceed with aggressive treatment.

## Abstract

**Introduction:** The glenoid labrum is frequently torn in traumatic glenohumeral dislocation; arthroscopic repair is the standard method of treatment. The complications associated with this repair are pulling out of metal suture anchors, chondrolysis and joint infection. The infection of joint after arthroscopy is less than 1%. Staphylococcus is most common organism and rarely followed by Pseudomonas aeruginosa. We report a case of infected shoulder with chondrolysis of the joint and pulled out metal suture anchor lying inside the joint after Bankart's repair.

**Case Report:** A 22-year-old gentleman came to us with complaints of shoulder joint pain & gross restriction of movements for one year, with history of intermittent fever and treatment in nearby hospital. He also gives past history of recurrent dislocation of shoulder with last episode 18 months back, which was diagnosed as Bankart's lesion and arthroscopic Bankart's repair was done 15 months back. He was evaluated at our institute and suspected to have infection of shoulder joint with pulled out metal suture anchor inside the joint. Arthroscopic removal of suture anchor and debridement of shoulder joint was done, Culture was obtained and culture specific antibiotics were given for six weeks, and significant improvement was observed with this line of treatment. At 1 year follow up, the patient was able to perform his daily activities with terminal restriction of range of motion.

**Conclusions:** Shoulder joint infection is rare after Bankart's repair and required a high degree of suspicion. Any foreign materials inside the joint should be taken out & followed with aggressive treatment by debridement, irrigation and culture specific antibiotics. Suppression of joint infection with antibiotics should be avoided specially when there is foreign body inside the joint.

**Keywords:** Bankart's repair, Septic Arthritis, Suture anchor, Pseudomonas aeruginosa.

## Introduction

The glenoid labrum, a crucial stabilizer of the joint, is frequently torn from the anterior glenoid in traumatic glenohumeral dislocation. This injury is called the Bankart's lesion [1]. The most common surgical method of treatment is an arthroscopic Bankart's repair, in which the torn labrum undergoes refixation to the anterior glenoid rim [2,3,4].

Chondrolysis is a devastating complication of arthroscopic shoulder surgery that can result in long term disabling consequences [5]. Severe articular damage caused by a loose or intra-articular metal suture anchor has been documented [8].

The incidence of shoulder joint infection after shoulder arthroscopy is less than 1% [9,10]. The most common organism isolated from septic joint after arthroscopy is Staphylococcus aureus &

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**Figure 1:** Radiographs of shoulder – Anteroposterior showing chondrolysis of glenoid with metal suture anchor in inferior region of shoulder.



**Figure 2:** Radiographs of shoulder – Lateral view showing chondrolysis of glenoid with metal suture anchor in posteroinferior region of shoulder.



**Figure 3:** Radiographs of shoulder – anteroposterior view after 8 weeks Post op.



**Figure 4:** Radiographs of shoulder –Lateral view after 8 weeks Post Op

Propionibacterium acnes and rarely by Pseudomonas aeruginosa [11,12]. We report a case of shoulder joint infection with Pseudomonas aeruginosa with pulled out metal suture anchors lying inside the joint.

### Case Report

A 22-year-old man presented with complaints of pain in the left shoulder since 1yr. Patient gives history of dislocation of the left shoulder while working out in the gym 2 years back and the second episode of dislocation occurred after 6 months while playing basketball. Following that incident he was evaluated, diagnosed to have Bankart's lesion and Bankart's repair was carried out in another hospital. Following the surgery, he was asymptomatic for 2 months. There was no swelling or discharge from the wound site and the wound healed well. He then had fever with pain and swelling in the left shoulder, following which he consulted an orthopedic surgeon. He was evaluated and started on antibiotics. Cefuroxime was started and continued for 5 months. Swelling reduced, pain remained as it was. On routine radiograph evaluation, it was found that the suture anchor had displaced so he was referred at our centre for further management. On examination, there were healed arthroscopic portal scars, crepitus felt on movements of the left shoulder, range of motion was globally restricted, there was wasting of deltoid & rotator cuff muscles.

We arthroscopically debrided the shoulder joint & the suture anchor was removed which was freely lying in inferior aspect of shoulder joint. The washout was sent for culture which reported growth of Pseudomonas aeruginosa, and culture specific antibiotics were given for 6 weeks.

At 1year of follow up, the patient is able to carry out his daily activities without pain and terminal restriction of range of motion.

### Discussion

The reported incidence of infections after shoulder scopy in some studies is 0.04% to 3.4% [7,11,12,13]. Most common organism isolated from septic joint after arthroscopy is Staph aureus & Propionibacterium acnes and rarely by pseudomonas aeruginosa [9,10]. Chondrolysis of the glenohumeral joint after arthroscopic surgery appears to be rare [14,15,16], high-volume intraarticular pain pumps, bioabsorbable labral fixation devices, and thermal

probes may be considered as cause of chondrolysis but the actual cause of even the reported cases has not been confirmed, study[5] has suggested against the use of large doses of intra-articular placement of local anesthetics.

The glenohumeral arthrosis after arthroscopic Bankart repair is quite common but the symptoms are generally mild and comparable to nonoperative treatment [17].

The use of metallic suture anchors about the shoulder is common place and useful, but, as with other hardware used about the shoulder, there are significant risks if the anchors are improperly placed or if the index procedure fails [6]. Complications with metallic suture anchors are more common than plastic suture anchors [6].

As with any metallic or plastic implant, infection is a potential complication that must be considered before using suture anchors, as well as during the postoperative period. The exact cause for the infection in this case was not determined, but a high index of suspicion is essential in making the diagnosis, particularly in the event of an indolent infection. Irrigation, debridement, and removal of the hardware, with wound closure addressing the soft tissues and postoperative administration of antibiotics, have resulted in a satisfactory short term result.

### Conclusion

Shoulder joint infection is rare after Bankart's repair, and a high degree of suspicion is needed if patient presents with pain in shoulder joint and fever. Diagnosis is to be confirmed & any foreign materials inside the joint should be taken out & followed with aggressive treatment by debridement, irrigation and culture specific antibiotics. Suppression of joint infection with antibiotics should be avoided specially when there is foreign body inside the joint.

### Clinical Message

Joint Infection after shoulder arthroscopy is rare but high degree of suspicion, early diagnosis and appropriate treatment is needed in this type of situation to prevent further and permanent damage to the joint.

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