

Anterior Dislocation of the Sternoclavicular Joint with Lateral Dislocation of the Acomioclavicular Joint in Bipolar Clavicle Dislocation: A Case Report

Aimin Chen

***Corresponding author**

Aimin Chen,
Department of Orthopedic Trauma Surgery.

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INTRODUCTION

Among clavicle injuries, clavicle dislocation is uncommon and challenging to treat. We describe a patient who had an anterior sternoclavicular joint dislocation as well as bipolar clavicle dislocation.

dislocation of the acomioclavicular joint to the side. Due to the rarity of this type of injury, treatment is still debatable. Here, we report successful open reduction and internal fixation utilizing the LARS artificial ligament stabilization approach in a 53-year-old male.

PRESENTATION OF CASE

The patient, a 53-year-old porter, suffered a left shoulder injury in January 2019 after falling from a truck while at work. An X-ray taken later revealed a clavicle dislocation and tear in the ribbon. This patient tried nonoperative treatments including physical therapy and a shoulder-elbow sling in an effort to avoid surgery, but they were unsuccessful. He visited our hospital's outpatient department a month later. The dislocation was still present, according to the CT and X-ray images. He was still experiencing pain when moving his shoulders in both passive and active directions. There was no prior history of drug or alcohol use.

A radiographic imaging review was conducted. When compared to the opposite side, the left AC joint was wider. An In the left SC joint, coronal and horizontal dislocation was discovered. He had trouble moving his shoulder and was completely unable to raise his arm. Additionally, we discovered that the clavicle rotates in the sagittal plane.

We came up with the therapy project to rebuild both clavicle joints during the preoperative consultation. Following the appropriate preoperative planning, we performed reconstructive surgery.

First, the reconstruction of the SC joint was carried out. A horizontal incision was made across the SC joint. There was a lot of scar tissue and a damaged SC joint capsule. Beneath the scar tissue, the sternal end of the clavicle was easily dislocated upward and forward. We exposed the first rib even further. A coronal hole was bored in the clavicle's sternal end, about 1 centimeter from there. The artificial ligament was then passed through the hole and the base of the During the preoperative visit, we developed the therapy scheme to reconstruct both clavicle joints. We carried out reconstructive surgery after making the necessary preoperative plans.

Initially, the SC joint reconstruction was completed. The SC joint was cut across horizontally. Both the SC joint capsule and a large amount of scar tissue were present. The sternal end of the clavicle was readily displaced upward and forward beneath the scar tissue. We went even more in exposing the first rib. About one centimeter from there, a coronal hole was made in the sternal end of the clavicle. After that, the synthetic ligament was inserted via the opening and the base.

DISCUSSION

Bipolar clavicular dislocations are uncommon. The conclusive incidence of this type of injury is not found in earlier research [1]. Due to the uncommon nature of these injuries, there is a dearth of evidence-based literature regarding the most effective technique. Arm slings and the figure-of-eight harness are examples of non-operative techniques. Ligamentous reconstruction, screws, K-wires, and hooked plates are among the surgical techniques used. With nonoperative treatment, subluxation, deformity, and chronic discomfort are possible outcomes.

Numerous papers [2–5] reported on the risk of post-operative implant failure, re-dislocation, or loss of reduction.

Initially, the operation scheduled for our patient was intended to address both the AC and SC joints. The AC joint was discovered to have automatically reduced after the SC joint. As a result, we invaded that a partial tear occurred in

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the coracoclavicular ligaments. The entire set of SC and AC joints needs to be taken into account. They converse with one another.

As demonstrated during the previous few decades, the SC joint is crucial to the motion of the shoulder joint. The secret to a successful functional outcome from bipolar clavicle dislocation is anatomic repair.

By using an artificial ligament called LARS to bind the sternal end of the clavicle and the first rib together, we were able to reconstruct the SC joint in our patient.

CONCLUSION

As far as we are aware, bipolar clavicle dislocations are uncommon and challenging to manage. However, we think that depending on the various sorts of injuries, tailored therapy should be provided, and we should give the SC joint reconstruction additional thought.

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