

Acute Sternoclavicular Dislocation: Treatment and Outcomes

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Purpose: This study investigates operative and nonoperative management and perioperative outcomes in sternoclavicular dislocations for both anterior and posterior acute dislocations. Also, we sought to elucidate risk factors for postoperative complications and patient-specific adverse outcomes.

Methods: We retrospectively reviewed adult patients treated for sternoclavicular joint dislocation (SCJD) between January 1, 2008, and December 31, 2018, at 8 sites. Data extraction defined demographics, injury characteristics, comorbidities, mechanisms of injury, treatment, complications, and clinical outcomes.

Results: A total of 97 SCJD injuries were included for analysis. 38 patients (39.1%) had an anterior dislocation, and 59 patients (61%) had a posterior dislocation. 30 of 59 posterior dislocations (50.8%) received surgery as the initial management while 14 of 38 (36.8%) of the anterior dislocations received acute surgery. Techniques used for acute repair were percutaneous reduction (4), FiberWire repair (8), dynamic compression plate fixation (8), locking plate fixation (4), suture fixation (7), allograft reconstruction (5), screw fixation (6), and clavicle resection with allograft reconstruction (2). 19 of 53 nonoperative patients (35.8%) had complications after initial treatment. Of those, 9 of 53 patients in the nonoperative group (17%) had persistent joint instability requiring surgery. 4 of 44 (9%) in the acute operative group and 6 of 53 (11.3%) in the nonoperative group had decreased range of motion. 2 of 53 (3.8%) of the non-operative group had symptomatic pain due to the SCJD injury and 3 of 44 (6.8%) in the operative group. 2 of 53 patients (3.8%) in the nonoperative group had a neurovascular injury versus none in the operative group. At final follow-up, 22 of 97 (22.7% of all patients) remain symptomatic. Overall, 70 of 97 patients (72.2%) were able to comfortably resume daily activities: 26 of 44 (59%) in the operative group and 44 of 53 (83%) in the nonoperative group.

Conclusion: Sternoclavicular joint dislocations are rare injuries with no current standard treatment. Usually, operative treatment is indicated for symptomatic unstable injuries or recurrent dislocation. In our study, the majority of patients were treated with closed management. Patients who underwent surgical management had a lower rate of complications. These data indicate that closed management should be considered unless obvious indications for operative treatment are present (ie, symptomatic instability or compression symptoms from posterior dislocations). Patients should be counseled on the risk of persistent symptoms of decreased range of motion, pain, and instability. To the best of our knowledge, this is the largest descriptive series to date of SCJD injuries.