

Posterior dislocation of the sternoclavicular joint – case study of a 17-year-old patient

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Introduction. Posterior dislocation of the sternoclavicular joint (SCJ) is a rare orthopedic injury, accounting for approximately 3–5% of all sternoclavicular dislocations. It predominantly affects young male adults, with the peak incidence occurring in the second and third decades of life, often resulting from high-energy trauma such as motor vehicle accidents or contact sports injuries. Complications associated with this injury encompass a spectrum of potential sequelae, including damage to vital structures such as the subclavian artery and brachial plexus, occurring in approximately 10–15% and 20% of cases, respectively. Furthermore, chronic instability or recurrent dislocations can lead to persistent pain, functional impairment, and decreased quality of life if left untreated, necessitating prompt diagnosis and intervention. We present a case of posterior sternoclavicular joint dislocation successfully managed with closed reduction and immobilization.

Objective. To describe the clinical presentation, imaging findings, surgical technique, and postoperative outcomes of a patient with posterior sternoclavicular joint dislocation treated with closed reduction and immobilization.

Material and methods. A 17-year-old male presented to our clinic with right-sided sternoclavicular joint dislocation following trauma. Computed tomography (CT) imaging revealed a discrete, band-shaped bone fragment posterior to the sternal end of the clavicle, with a broader articular gap in the sternoclavicular joint compared to that of the contralateral side. Surgical intervention was performed under general anesthesia using closed reduction technique guided by fluoroscopy. Reduction was confirmed intraoperatively using serendipity views and ultrasound. A figure-of-eight plaster cast was applied postoperatively.

Results. Successful reduction of the sternoclavicular joint dislocation was achieved. Postoperative CT imaging demonstrated restoration of joint alignment, with no evidence of residual dislocation or fracture. The patient had an uncomplicated perioperative and postoperative course. The patient was discharged in a satisfactory health condition.

Conclusions. Posterior sternoclavicular joint dislocation is a rare orthopedic injury that requires prompt recognition and appropriate management to prevent complications. Closed reduction under fluoroscopic guidance followed by immobilization with a figure-of-eight plaster cast can be an effective treatment strategy, resulting in restoration of joint alignment and favorable postoperative outcomes. Further studies are warranted to evaluate long-term outcomes and complications associated with this treatment approach.