Posterior dislocation of the sternoclavicular joint

Dear Editor,

Sternoclavicular joint (SCJ) dislocations are not common; representing less than 1% of all dislocations in the body and counts for approximately 3% of all shoulder injuries^{1,2}. In most cases, medial end of the clavicle dislocates anteriorly. Posterior dislocations are extremely rare and may have life threatening complications because of close proximity to superior mediastinum.

A 27-years-old man presented with a history of falling on his right shoulder. Pain and swelling at the medial clavicular region, venous congestion at the neck, and difficulty in swallowing were noted. Posterior dislocation of the right SCJ was diagnosed at computerized tomography (CT) scans and the serendipity view radiograph. Pressure on the trachea from the right side and compression at the right innominate vein were also determined at the CT scans.

Closed reduction was performed under general anesthesia at the operation room. Longitudinal traction applied to the 90 degrees abducted arm. While extending the shoulder, medial clavicular head has been levered anteriorly from under the manubrium by pushing the shoulder posteriorly. The SCJ has been reduced with a popping. Reduction has been confirmed with CT examination. Patient discharged at the next day and kept in a figure-of-eight bandage for 6 weeks. Pain-free full range of motion was present at the third month.

In patients with pain, swelling and tenderness at the medial clavicle with a history of shoulder injury, traumatic SCJ lesions should be considered. Anterior dislocations are the most common traumatic SCJ lesions. Posterior dislocations present with much pain and some symptoms like dyspnea, dysphagia and dysphonia which are related to more serious injuries. There are some life threatening complications associated with posterior SCJ dislocations including compression and lacerations of great vessels, trachea and esophagus in the mediastinum. These complications may be observed at the time of injury; also late appearing complications including tracheoesophageal fistulas, mediastinitis, brachial plexus lesions, thoracic outlet syndrome and vascular compromise may occur with old unreduced posterior SCJ dislocations³.

Asymmetry between the medial ends of the clavicle seen at the chest radiogram should be considered as a sign for further radiological intervention in the patients with shoulder injury. Serendipity (Rockwood) view, Hobbs view and Heinig's projection are the specific plain radiograms for evaluating the SCJ. Serendipity view is the best known and most useful technique to determine any traumatic SCJ pathology⁴. CT examination is also useful and sensitive way to evaluate the joint.

Preferred treatment is closed reduction in acute posterior SCJ dislocations without any mediastinal injury. Open reduction may be necessary in the presence of a mediastinal injury and when the closed reduction fails. The surgical team must be alert for any complication requires emergency thoracic surgery during manipulation for closed reduction.

Life threatening traumatic lesions to the mediastinal structures may be seen with posterior SCJ dislocations. Posterior SCJ dislocations should be kept in mind in the patients with a trauma to the posterior aspect of the shoulder.

References

- 1. Jougon JB, Lepront DJ, Dromer CEH. Posterior dislocation of the sternoclavicular joint leading to mediastinal compression. Ann Thorac Surg. 1996; 61: 711-713.
- 2. Mitani M, Nabeshima Y, Ozaki A, Mori H, Fujii H. Unexpected reduction of a posterior sternoclavicular dislocation: A case report. J Shoulder Elbow Surg. 2008; 17: e25-e27.
- 3. Worman LW, Leagus C. Intrathoracic injury following retrosternal dislocation of the clavicle. J Trauma. 1967; 7: 416-423.
- 4. Laffosse JM, Espié A, Bonnevialle N, Mansat P, Tricoire JL, Bonnevialle P, et al. Posterior dislocation of the sternoclavicular joint and epiphyseal disruption of the medial clavicle with posterior displacement in sports participants. J Bone Joint Surg Br. 2010; 92: 103-109.

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Renal artery pseudoaneurysm after partial nephrectomy

Dear Editor,

Nephron-sparing surgery has emerged as an excellent option for the management of small renal cortical tumors. Renal artery pseudoaneurysm is a rare complication of partial nephrectomy and a limited number of reports describing the presentation and management of this situation have been published so far¹. We report two cases of renal artery pseudoaneurysm occurred after elective nephron-sparing surgery.

The first one is refered to a 35-year-old woman who underwent an open left partial nephrectomy. Complete intraoperative hemostasis was achieved using interrupted figure-of-eight 4-0 chromic sutures at sites of parenchymal bleeding. Twelve days postoperatively, the patient reported gross hematuria and intermittent left flank pain. Renal arteriography was performed and revealed a left renal artery pseudoaneurysm with active extravasation. Coil embolization was performed with complete resolution of her hematuria.

The second case to a 59-year-old man underwent retroperitoneal laparoscopic partial nephrectomy. The defect was closed