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 dislocations[3].

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 pathology[4]. 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.

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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 far[1]. 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

with 0 glycolide/lactide suture in a horizontal mattress fashion over an oxidized cellulose bolster. On postoperative day 3, the patient reported left flank discomfort and gross hematuria. CT scan revealed multiple pseudoaneurysms and the patient underwent selective arteriography confirming the diagnosis. Percutaneous selective coil angioembolization was successfully performed.

Hemorrhage is the most common complication of partial nephrectomy. However, less commonly, hemorrhage can also occur in the context of a pseudoaneurysm with reported rates of 0.4%-1.4%[2,3]. Currently, only 25 reported cases are available in the partial nephrectomy literature, with 11 reported after laparoscopic partial nephrectomy and the first one being described in 1973[1].

A pseudoaneurysm during partial nephrectomy procedure is thought to be formed from inadvertent vessel injury or from a suture placed through a vessel during the approximation of the renal parenchyma. After the initial renal injury, hypotension, coagulation and pressure from the surrounding tissue (vascular adventitia, renal parenchyma and Gerota's fascia) results in temporary cessation of the bleeding. Degradation of the clot and surrounding necrotic tissue results in recanalization between the intravascular and extravascular space and, subsequently, the formation of a pseudoaneurysm. With restoration of normal blood flow, this pseudoaneurysm can grow and eventually become unstable with erosion into the surrounding pelvicaliceal system or the surrounding perinephric tissue[4]. Angiography has been shown to be the gold standard for the diagnosis of renal artery pseudoaneurysm. However, if the patient is hemodynamically stable, non-invasive tests such as contrast medium-enhanced CT and magnetic resonance angiography should be performed. Percutaneous selective coil angioembolization is a safe and efficient technique for the management of the patients with this delayed form of hemorrhage, providing excellent results with maximal renal preservation.

In our opinion, post-partial nephrectomy rates of pseudoaneurysm should be well analyzed by large series studies, since the rarity of this serious and insidious complication is debated.

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Long-term safety and efficiency of endovascular repair in an adolescent patient with post-traumatic aortic pseudoaneurysm

Dear Editor,

The injury pattern in blunt paediatric chest trauma is different from that encountered in adults and traumatic rupture of the thoracic aorta (TRA) is rare in young people.

The newest approach in the treatment of thoracic aortic injuries is thoracic endovascular aortic repair (TEVAR), but the majority of surgeons agree that TEVAR involves uncertainty and risks and that certain guidelines should be followed[1].

The application of TEVAR in young patients presents even more challenges and concerns which are associated with the young age of the patient and could lead to a poor outcome[2]. There are only few reports of TEVAR in pediatric traumatic aortic injury[3] and all of them conclude that although short-term recovery and follow-up are encouraging for endovascular stenting in the pediatric population, further long-term follow-up is required.

Such long-term data for the TEVAR approach in children are currently lacking and therefore TEVAR is considered a bridging procedure and not a definitive treatment, in this population.

A 16 year old Greek boy with no previous medical history, was admitted to our hospital with serious multiple trauma, fractures of the lower extremities and ischemic manifestations on the right lower extremity, after a high-speed motor vehicle collision. The patient demonstrated distress in breathing. A Glasgow Coma Scale (GCS) of ten (10) was measured.

Physical examination revealed neither differences in upper extremity pulses nor the presence of pseudocoarctation syndrome. A plain chest radiography was initially performed on a supine position. It revealed mediastinal widening and loss of the aortic knob which are signs of aortic injury. Contrast-enhanced CT was performed on the brain, chest and abdomen of the patient. Mediastinal hematoma, extravagation of the contrast medium and pseudoaneurysm formation, without clear visualization of the exact position of the pseudoaneurysm, were observed. Aortography was then performed to evaluate the exact position of the pseudoaneurysm.

The patient was urgently treated and endovascular stenting was placed. He was followed up every six months initially and every year thereafter. Four years later, chest radiography demonstrated the excellent positioning of the endovascular