Retropharyngeal calcific tendinitis: Report of two cases

Sir,

Retropharyngeal calcific tendinitis (RCT), which is a little known but not an uncommon condition, should be considered as a differential diagnosis of neck pain. Here, we present two cases of RCT admitted to our emergency department (ED) with neck pain.

A 47-year-old woman was presented to the ED with sore throat and posterior neck pain for 2 days. Physical examination was normal. Her computed tomography (CT) images revealed 6-7 mm calcification anterior to C2 vertebra [Figure 1]. She has completely improved with 7 days of nonsteroidal anti-inflammatory drug (NSAID) therapy.

A 42-year-old man was admitted to the ED with severe left and posterior neck pain, exacerbated by movement and food intake for 3 days. The patient exhibited a sore throat and fever (37.8°C). In blood examination, the only abnormal item was white blood cells (WBC) (15,800/μl). CT images revealed C3-C4 anterior longitudinal ligament calcification, and magnetic resonance imaging (MRI) demonstrated retropharyngeal prevertebral soft tissue edema and inflammation [Figure 2]. Because of the nontypical localization of the prevertebral calcification, retropharyngeal drainage was planned to rule out abscess. There was no material drained with the procedure. The cultures and biopsies did not show any infection. Hence, patient was discharged with medical treatment.

RCT is a benign, self-limited, and inflammatory condition of the longus colli tendon thought to be a form of calcium hydroxyapatite deposition disease. It is characterized by an acute onset of severe neck pain, odynophagia, and a painful restriction of neck movement. This disease mostly affects adults between 30- and 60-years old as our cases. The calcifications are usually present in the superior oblique portion of the longus colli muscle at the C1-C2 levels although a C5-C6 level has also been described. The most common treatment methods entailed the use of NSAID, steroids, or opiate analgesics.

The presentation of this disease may be similar to more serious conditions such as retropharyngeal abscess (RPA), meningitis, cervical myopathy, and traumatic injury. It is important to note that the relatively benign condition of RCT is often misdiagnosed with RPA in 75% of patients. Patients with RPA usually present with neck pain, sore throat, dysphagia, or odynophagia that is also common in RCT. RCT is a benign self-limiting disease that rarely requires admission, whereas RPA is associated with a high morbidity that may require antibiotics and surgical drainage for the treatment. The diagnosis was also delayed in our second case, which also underwent surgical drainage to exclude RPA.

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Figure 1: 3D CT image showed calcification of the longus colli muscle at the level of second cervical vertebra (arrow). 3D: Three dimensional; CT: Computed tomography

Figure 2: CT image demonstrated calcification in the region of prevertebral area of C3-C4 vertebra. CT: Computed tomography
Significance of pneumorrhachis detected by single-pass whole-body computed tomography in patients with trauma

Dear Editor,

Pneumorrhachis, which involves the entrapment of air or gas within the spinal canal, is a rare, typically incidental, imaging finding. Pneumorrhachis may be caused by several degenerative, traumatic, infectious, tumoral, decompressive sickness or iatrogenic etiologies.

Usually, pneumorrhachis is an asymptomatic epiphenomenon, but it can produce symptoms associated with its underlying pathology.

Patients with trauma induced by high energy accidents tend to undergo single-pass whole-body computed tomography (PAN-SCAN) to detect lethal injuries to organs. We experienced cases of pneumorrhachis detected by the PAN-SCAN image interpretation, and we herein report the results of a retrospective analysis performed to determine the significance of pneumorrhachis in traumatized patients.

A medical chart review was retrospectively performed in all patients with trauma who were treated by a physician in the Department of Emergency (ER) and were admitted to our hospital between April 2013 and October 2014. The exclusion criteria included patients who did not undergo the PAN-SCAN. The subjects were divided into two groups: the pneumorrhachis group, which included patients who had pneumorrhachis detected in the PAN-SCAN image, and the control group. There were four patients included in the pneumorrhachis group and 130 patients in the control group. All four patients in the pneumorrhachis group were female, and their ages were 53, 89, 90, and 91-years-old. All four patients survived. The pneumorrhachis was located in the lumbosacral epidural space in all four cases. There were no neurological abnormalities at the level of the lumbar or sacral spinal cord in the pneumorrhachis group. Statistically, the average age (80.7 ± 9.5 vs. 53.3 ± 2.0, P < 0.05) and proportion of females (0/4 vs. 92/39, P = 0.01) in the pneumorrhachis group were significantly higher than those in the control group.

In previous reports, cases of pneumorrhachis induced by traumatic or degenerative etiologies were predominant. In the previous traumatized cases, a direct open injury into the spinal canal, air migration into the spinal canal due to pneumocephalus with open skull fracture, pneumomediastinum with barotrauma or a pneumothorax were reported.

In this report, all of these mechanisms were ruled out by the results of the interpretations of the images. The vacuum phenomenon is produced by the liberation of air and results in the formation of gas under negative pressure in the spinal canal. This phenomenon is often observed in patients with traumatic spinal injuries and is associated with a high risk of neurological damage.

In conclusion, pneumorrhachis is a rare, incidental imaging finding that can be detected by single-pass whole-body computed tomography in patients with trauma. The results of our study suggest that pneumorrhachis is associated with an increased risk of neurological damage and should be considered in the differential diagnosis of patients with traumatic spinal injuries.

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