

CALCIFIC TENDINITIS OF THE LONGUS COLLI MUSCLE

P. Ovreeide, B. De Keyzer, F. Govaere, I. Crevits¹

Key-word: Tendinitis

Background: A 49-year-old man presented at the emergency department with neck pain for one week but also with subfebrility, sore throat and difficulties for swallowing for 3 days. Physical examination showed limited neck movement and tenderness of the trapezius muscles. Blood test showed an elevated C-reactive protein level and a mild leukocytosis. Tracheolaryngoscopy was normal.

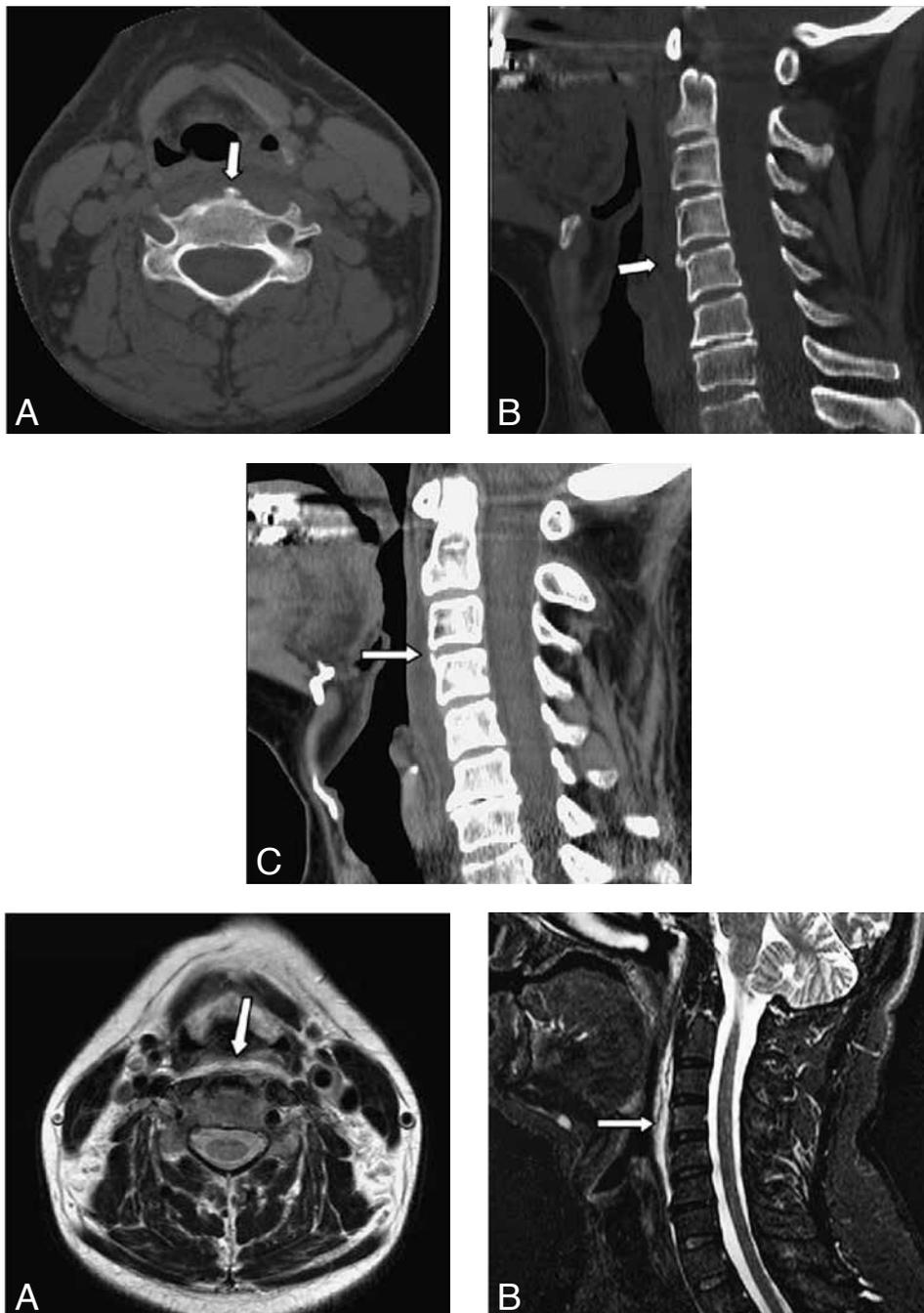


Fig.

1A	1B
1C	
2A	2B

Work-up

CT scan of the cervical spine (Fig. 1) shows on axial plane at the level of the intervertebral space C4-C5 (bone window setting) (A) a swelling of the prevertebral soft tissues with calcification paramedial left, just in front of the intervertebral space (arrow).

Reformatted image in the mediosagittal plane (bone window setting) (B) demonstrates again, the calcification at the midline in front of the intervertebral space C4-C5 (arrow).

On reformatted image in the mediosagittal plane (soft tissue window setting) (C), diffuse swelling of the prevertebral soft tissues from C2 to C6 (arrow) is noticed.

MRI of the cervical spine (Fig. 2) shows on sagittal STIR image at the midline (A) a diffuse hyperintense signal of the retropharyngeal space from C2 to C6 (arrow). On axial T2-weighted image at the level of the intervertebral space C4-C5 (B), swelling of the retropharyngeal space with diffuse hyperintense signal (arrow) is noted.

Radiological diagnosis

Based on the findings of calcification in the longus colli muscle and the diffuse edema in the retropharyngeal space, along with the clinical presentation, the diagnosis of *calcific tendinitis of the longus colli muscle* was made. NSAIDs were prescribed and symptoms resolved within two weeks.

Discussion

Calcific tendinitis of the longus colli muscle is a retropharyngeal inflammatory/granulomatous response to the deposition of calcium hydroxyapatite crystals in the tendons of the longus colli muscle. Common clinical presentations are neck pain, dysphagia, odynophagia, occipital headache, tenderness of the posterior neck and low-grade pyrexia. Blood tests can show mild elevation of leukocytes, C-reactive protein and sedimentation.

The longus colli muscle extends from the anterior tubercle of C1 to the vertebral body of Th3 and is a weak flexor of the neck together with the overlying longus capitis muscle. The longus colli muscle

consists of superior oblique fibers (from the anterior tubercle of C1 to the transverse processes of C3-C5), central vertical fibers (from the vertebral bodies C2-C4 to the vertebral bodies of C5-Th3) and inferior oblique fibers (from the transverse processes of C5-C6 to the bodies of Th1-Th3). Normally the superior fibers are found to be affected with calcifications in the C1-C2 region. In the presented case the calcifications are found at the C4-C5 level and thus due to affected central vertical fibers which is very rare.

The imaging modality of choice for establishing the diagnosis is a CT scan of the neck with multiplanar reconstructions. It has a great sensitivity both for detecting the calcifications and the prevertebral swelling. MRI is very sensitive in detecting retropharyngeal inflammation but CT is superior in detecting calcifications. Plain film radiography easily misses small calcifications and thus is insufficient in making the diagnosis.

An important differential diagnosis is retropharyngeal abscess. A retropharyngeal abscess usually shows an enhancing wall and a fluid expansion that is confined within the retropharyngeal space, there are no calcifications as seen in calcific tendinitis of the longus colli and usually there are also associated suppurative lymph nodes. It is very important to make the diagnosis of this rare entity because the treatment of calcific tendinitis is conservative and very successful. The treatment consists of a short trial of NSAIDs. If the symptoms are severe, corticosteroids may be required. Symptoms normally resolve within several weeks.

Bibliography

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