CLINICAL VIGNETTE

Acute Calcific Tendinitis of the Longus Colli Muscle: A Less Known Cause of Neck Pain

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Case Presentation

A 48-year-old female with history of right C7 radiculopathy due to C6-C7 nucleus pulposus herniation presented with acute onset of severe neck pain, stiffness, and odynophagia. The patient had a history of waxing and waning episodic neck pain. Her right sided neck pain radiated to the right shoulder and right upper extremity. About five years prior she received pain management epidural injection and physical therapy. She had ongoing pain and was evaluated by Neurosurgery. MRI cervical spine (c-spine) showed right C6-C7 paracentric disc herniation causing right foraminal stenosis and compression of the right C7 nerve root. She was offered surgical and nonsurgical interventions, but deferred after as her symptoms were improving and continued physical therapy and pain management with gabapentin and cyclobenzaprine.

The patient was stable until four days prior to admission when she developed neck pain. Onset of pain was 4 hours after her usual Pilates class. She is physically active, exercises regularly and denied any trauma or injury. She presented to the emergency department (E.D.) due to the severity of the pain and limited ROM. Evaluation included unremarkable labs and negative cervical spine 3-view x-ray. There was no acute fracture or dislocation of the cervical spine, no prevertebral soft tissue swelling and normal vertebral heights. The patient was discharged home with ibuprofen, cyclobenzaprine, and oxycodone-acetaminophen.

The patient returned to the E.D. four days later due to ongoing pain with increased neck swelling with new onset of odynophagia to solid foods. She denied chills, fevers, recent dental work, significant voice changes, preceding viral/bacterial infection, and any sick contacts. Vitals signs were normal and physical exam showed tenderness to palpation of the neck with limited ROM. Laboratory testing included elevated c-reactive protein (4.4 mg/dL), but otherwise was unremarkable. Non contrast CT c-spine and neck showed retropharyngeal effusion with calcification anterior to the dens to the left of midline extending caudally to the C6 level and some calcification of the anterior C2 vertebra concerning for acute calcific tendinitis of the longus coli muscle (ACTLC). There was no acute fracture or subluxation or bony erosion. MRI c-spine without contrast showed significant retropharyngeal fluid from C1-C5, narrowing the aerodigestive tract and significant joint effusions at C1-C2 articulations. Otolaryngology was consulted and a flexible laryngoscopy was unrevealing. Neurosurgery was also consulted and recommended blood cultures and an MRI c-spine with/without showed no significant abnormal enhancement within the spinal canal but abnormal thickened enhancing prevertebral soft tissues. The patient was diagnosed with calcific tendinitis of the longus coli muscle. She was started on ibuprofen and cyclobenzaprine with improvement in neck pain, swelling, ROM and odynophagia and discharged home on hospital day two.

Discussion

ACTLC is a rare benign process that causes aseptic inflammation and swelling of the long colli muscle and surrounding tissue.[1] Most common symptoms include neck pain, stiffness, and odynophagia. Other findings may include low-grade fever, leukocytosis, and elevated sedimentation rate and c-reactive protein.[2] The etiology is not known but is thought to be due to the deposition of calcium phosphate in the longus colli muscle.[2,3] Potential causes include prior trauma and upper respiratory infections.[2] The differential diagnoses include infection and neoplasms, and the diagnosis is established on imaging. The course is self-limited, and first line treatment includes nonsteroidal anti-inflammatories and corticosteroids.[2]

Conclusion

ACTLC is a rare, benign cause of neck pain that may be misdiagnosed due to nonspecific findings and broad differential diagnosis which may lead to extensive testing and unnecessary interventions.[1,2] Imaging including CT and MRI establish diagnosis[1,2] and increase knowledge of this benign cause may help limit testing.

REFERENCES

1. **Raggio BS, Ficenec SC, Pou J, Moore B**. Acute Calcific Tendonitis of the Longus Colli. *Ochsner J*. 2018 Spring;18(1):98-100. PMID: 29559880; PMCID: PMC5855435.
2. **Bannai T, Seki T, Shiio Y**. A pain in the neck: calcific tendinitis of the longus colli muscle. *Lancet*. 2019 May 18;393(10185):e40. doi: 10.1016/S0140-6736(19)30951-1. PMID: 31106755.

3. **Frei N, Bless N**. Acute Longus Colli Calcific Tendinitis: A Rare Cause of Neck Pain. *Eur J Case Rep Intern Med*. 2019 Aug 2;6(8):001126. doi: 10.12890/2019_001126. PMID: 31508382; PMCID: PMC6726343.