Longus cervicis colli “myositis” (syn: retropharyngeal tendinitis)

Acute spontaneous pain in the neck and dysphagia are both common symptoms, but the condition is rare and can cause a challenging anatomical and diagnostic puzzle. This report draws attention to a clinically diagnosable condition—“retropharyngeal tendinitis”—which is often unrecognized.

A 42-year-old secretary in excellent health fell, in the sitting position, into a stream. She had minor abrasions of the limbs but did not hurt her neck or head. Ten days later she developed a stiff neck. Turning the neck to the left side was painful, making driving difficult. After two days pain increased; prescribed methocarbamol failed to provide relief. On day 3 she had painful difficulty in swallowing, not in the throat but in the right side of the neck “as if the muscles and ligaments were strained”, and painful movement was relieved when flexing her neck.

She consulted a neurophysiologist who found no neurological abnormality apart from painful restriction of rotation and lateral flexion, with no visible abnormality in the throat or no external bruising, swelling, or lymphadenopathy. No neurological, radiological, or systemic studies were undertaken.

Dysphagia increased until she could swallow small sips of water. She held her neck to ease swallowing. She also took to holding her head with both hands to enable her to lay her head on the pillow, and to sit up when getting out of bed. Sleeping in a soft collar provided slight relief. On the seventh day pain improved; swallowing remained difficult, but caused no pain in the throat, only in the side of the neck. By day 10, pain was less severe, movements limited, and the next day she could swallow solid foods and liquids. On the 12th day symptoms had all resolved, and 15 months later she had had no recurrence and no other illness. When she sought neurological opinion she was largely recovered and displayed no physical abnormality to justify radiography or MRI.

The unusual combination of such distinctive symptoms suggests a lesion in the retropharyngeal space involving the prevertebral muscles. I draw attention to a clinically diagnosable condition, “retropharyngeal tendinitis”, which is not well known, or is unrecognized. The salient features are: (1) The curious location of pain, mainly in the side of the neck, is quite different from that experienced in common neck sprains of whiplash injury, which are maximal in the posterior neck muscles with radiation to the shoulders, occiput, and interscapular regions. (2) Lesions are evaded by movement like acute disk lesions or whiplash injury, but unlike these mechanical lesions, is relieved by anteroflexion. The patient prefers to sit upright, and lays down with great difficulty. (3) Pain is dramatically increased by swallowing. (4) Painful dysphagia is felt not in the throat, but in the side of the neck. Patients may be obliged to hold their necks to allow swallowing. (5) The illness is uncomplicated by fever or systemic disturbance and is self-limiting.

Kaplan and Eacey described similar features and showed calcification in the tendon of the longus colli muscle. Fahlgren added three more cases and noted increased radiological thickness of the prevertebral soft tissues which he compared with normal subjects. Confirmation by CT and MRI were added in the case report.

Ekborn et al have described seven such cases in whom radiography and MRI confirmed a smooth homogeneous soft tissue swelling with increased signal intensity on T2 weighted images in the acute stages, regressing or disappearing in remission. Swelling was anterior to C1–2 in all cases and in some it extended through the whole cervical spine, with calcification at C1–2 in five of the seven patients. Control subjects (n = 12) showed a mid-sagittal thickness of prevertebral soft tissues of 2.5 (SD 0.8) mm at C1, 2.3 (SD 0.5) mm at C2, 3.3 (SD 0.8) mm at C4: compared with 8.6 (SD 2.4) mm at C1, 6.1 (SD 1.5) mm at C2, and 6.6 (SD 2.3) mm at C4 in patients (fig 1). Diagnosis can be confirmed by acute and follow up lateral x-ray films of the neck. Computed tomography and MRI can supplement this simple investigation, when there is doubt.

The main structure in the prevertebral space (fig 2) is the longus cervicis colli which consists of three interconnecting parts: lower oblique, upper oblique and vertical portions. They arise from the T2–4 vertebral bodies and their anterior tubercles, and insert into C5–6 vertebrae, the atlas, and bodies of C2–4 respectively. Its nerve supply is the anterior primary rami of C3 through C8. It acts as a flexor and rotator of the neck.

Importantly, the lower half is related to the oesophagus.

The pathology is described as “retropharyngeal tendinitis”, but the maximum radiographic change is between the atlas and C4, and extends caudally, so that the muscle belly is confined to the swelling. “Longus cervicis myositis” would be a better designation. I would surmise that in some instances of trauma, a haematoma or contusion could produce the same syndrome. In published cases, oedema of the longus cervicis is demonstrated on imaging, and its resolution suggests an inflammatory lesion. There was no evidence of an inflammatory lesion in my patient. In the absence of a known sprain, and, with an onset 10 days after her fall, a traumatic cause is uncertain. In whiplash injury pain can be delayed, but is always evident within 48 hours. Treatment is symptomatic with spontaneous complete recovery in seven to 14 days.

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Cholinesterase inhibition in Parkinson’s disease

Senile dementia of the Alzheimer type (SDAT) is associated with degeneration of the nucleus basalis, and consequently with a cholinergic deficit. Recent trials with the acetylcholinesterase inhibitor tacrine have shown promise for partial reversal of this dementia in some patients. Those patients with Alzheimer’s disease with some of the clinical stigmata of Lewy body dementia may respond best to tacrine.

On the other hand, Parkinson’s disease was long ago associated with a cholinergic deficit, which may be more profound than that seen in SDAT, suggesting a theoretical reason for giving a procholinergic drug in

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**Figure 1** Prevertebral soft tissue width in retropharyngeal tendinitis and controls (data from Ekborn et al*).

**Figure 2** Diagrammatic transverse section through neck to show arrangement of deep cervical fascia and longus cervicis colli.
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