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CT of acute cervical tendinitis.

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The CT appearance of inspissated mucus could be mimicked by calcific concretions, such as those found in aspergillosis [4] or by IV contrast-enhancing mucous membranes. Our CT scans were not contrast-enhanced, and the pathologic specimens contained no evidence of calcification or fungal infection.

Because surgery only temporarily alleviates discomfort, otolaryngologists are reluctant to operate when treating patients with a history of allergic rhinitis, nasal polyposis, and recurring complaints of severe facial congestion. Because the trocar tends to become blocked by the thickened mucous membranes, antral lavage is often uncomfortable and less beneficial than in simple chronic sinusitis. Intranasal antrostomy is conservative surgery for debridement of the maxillary sinuses. In these patients, however, the antrostomy through the nose would have been inefficient because of the putty-like consistency of the material filling the antra.

On the other hand, a radical Caldwell-Luc procedure allowed the disease to be removed fairly easily through an opening made into the canine fossa of the maxilla. This finding can enable the radiologist to predict the nature of the disease and counsel an aggressive surgical approach.

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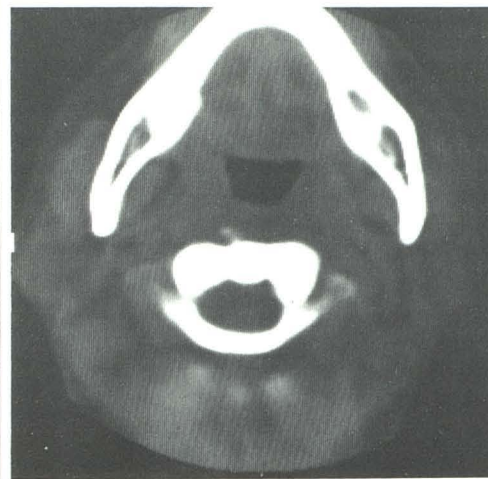
CT of Acute Cervical Tendinitis

A case of acute calcific tendinitis of the neck was studied with CT. The clinical presentation and routine radiographs suggested the diagnosis, but CT established it. The latter illustrated calcification of the longus colli muscle that was not seen on the radiographs. A similar case is described briefly.

Fig. 1.—Lateral cervical spine radiograph shows soft-tissue swelling anterior to upper vertebral bodies.



Fig. 2.—CT scan of C1-C2 spine shows soft-tissue swelling of right longus colli muscle as well as calcifications.



Case Report

A 32-year-old woman presented with a 2-day history of progressively severe pain in her neck. There was dysphagia, occipital pain, and cervical pain on motion of the neck. The patient was febrile and had mild leukocytosis. Cervical radiographs only showed soft-tissue swelling on the lateral view (Fig. 1). A localized CT scan of the upper cervical spine showed soft-tissue swelling and calcification anterior to C1 and C2 (Fig. 2). Thus, the diagnosis of acute cervical tendinitis was made and treatment with a cervical collar and analgesics was instituted. One week later she was asymptomatic and lateral cervical radiographs were normal. A repeat CT scan was thought to be unnecessary.

Discussion

Acute tendinitis of the neck (longus colli muscle) has been reported with increasing frequency in recent years and is similar to acute tendinitis of other joints in that there is pain, tenderness, and muscle spasm. In addition, radiographs show calcification and swelling anterior to C1 and C2, which are diagnostic in most instances [1-3].

The patient in this case had all the typical findings of acute tendinitis except that no calcification was visible on the radiographs. CT, with its superior contrast resolution, showed it. Thus, the suspected diagnosis was confirmed, patient and physicians were reassured, and conservative therapy was instituted without needless biopsies, antibiotics, or lumbar puncture.

Although a case report of CT diagnosis of calcific tendinitis of the longus colli has recently been published in a general radiology journal [4], neuroradiologists should be familiar with this disease as well as with the occasional help CT can provide. We have since seen an almost identical case that could only be diagnosed definitively by CT. Before the scan, meningitis and retropharyngeal abscess were considered. It should be remembered that routine radiographic studies are sufficient in most cases.

Although 36 cases have been reported in the literature, we feel it is much more common than that number would imply because one of the authors has seen nine cases in approximately 10 years. Apparently, many physicians are not aware of this condition.

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Central Pontine Myelinolysis: Report of a Case with Distinctive Appearance on MR Imaging

We report a case of central pontine myelinolysis (CPM) in which MR imaging showed a distinctive trident-shaped configuration of the pontine lesion not noted on previous reports [1, 2]. This pattern reflects the known pattern of pathologic involvement.

Case Report

A 53-year-old-alcoholic man was brought to the emergency department because of general debility. On admission his vital signs were within normal limits. A general physical examination revealed a thin, disheveled man, but was otherwise unremarkable. Neurologic examination revealed 4/5 strength, normal sensation, and normal deep tendon reflexes.

The serum Na⁺ was 104 mEq/l and K⁺ was 2.9 mEq/l. The serum sodium was corrected to 130 during the next 24 hr by IV administration of normal saline. By the next day the patient felt stronger and generally improved, but during the next several days he became gradually disoriented. A CT scan done at that time showed only atrophy. The results of a lumbar puncture were normal.

The patient deteriorated further and became dysarthric and quadriplegic. A second CT scan on the 25th day of hospitalization revealed a low-density area in the basis pontis with sparing of the periphery (Fig. 1). No abnormality in the basal ganglia was evident. The appearance was thought to be most compatible with CPM.

MR was performed 18 days later. On axial T1-weighted images (Fig. 2A), there was a large, central hypointensity in the pons. The

ventral aspect of the abnormality had a three-pointed or trident configuration. The lesion became hyperintense on T2-weighted images (Fig. 2B) and extended up to the midbrain. There was similar involvement of the putamen bilaterally (Fig. 2C). The clinical condition remained unchanged.

Discussion

The most common setting in which CPM develops is that of severe derangement of serum sodium, either hyponatremia with rapid correction [3, 4] or hypernatremia [5], often seen in alcoholic patients. Typically, some initial neurologic improvement with electrolyte normalization is followed by development of quadriparesis and lower cranial nerve palsies.

Milder cases of CPM found at autopsy are clinically undetected. The typical lesion involves only bilateral small paramidline pontine foci, sparing most of the corticospinal and corticobulbar fibers and the midline trapezoid body. Those cases diagnosed by CT represent more severe involvement. Pathologically, the more extensive lesions may be triangular in shape [6], without midline sparing. Extrapontine involvement has been documented in the thalamus; putamen; midbrain; internal, external, and extreme capsules; claustrum; lateral geniculate bodies; corpus callosum; gray-white junction in the cerebrum and cerebellum; cerebral cortex; and corticospinal tracts in the medulla and spinal cord [5, 7, 8]. Sparing of the pontine periphery and tegmentum is usually seen on CT [3, 4, 9].

A feature of CPM that is not widely recognized is the relative sparing of the ventrolateral aspects of the pons. This is a fairly characteristic pattern seen pathologically: the longitudinal fibers, consisting of the corticospinal and corticobulbar tracts coursing through the basis pontis, are histologically less affected than the transverse fibers [7].

The shape of the lesion, as seen on MR in this case, appears to conform to this pattern; the three-pointed or trident configuration results from the relative sparing of the corticospinal tracts. The shape of the lesion was not clearly shown by CT, and the midbrain and putamen involvement was unsuspected on CT. The lesions of CPM are not only more easily visualized by MR than by CT, but the pattern of abnormality, by accurately reflecting the pathologic change, establishes the diagnosis with greater certainty.

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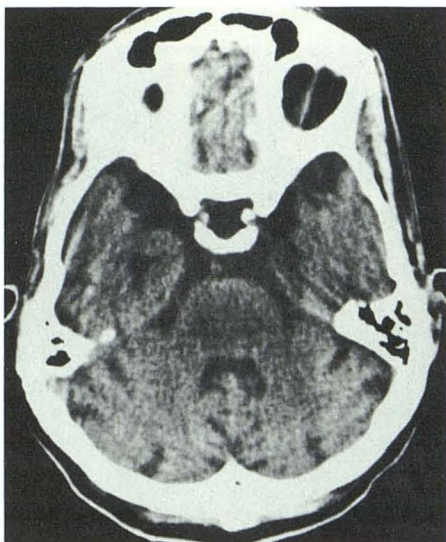


Fig. 1.—Axial CT section shows hypodense lesion in pons with peripheral sparing.

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