Abstract

Objectives: Retropharyngeal calcific tendinitis is a rare condition characterized by inflammation and calcification of the longus colli muscle, often with a reactive effusion that can mimic a retropharyngeal abscess. The literature consists of anecdotal case reports and small case series.

Study Design: Literature review and case series

Methods: We present 251 cases of retropharyngeal calcific tendinitis including 246 identified from a PubMed literature review from 1951-2014 and a series of five cases from our institution. We analyze the demographics, clinical characteristics, imaging features and treatments.

Results: The most commonly reported symptoms were neck pain (97.6%), neck stiffness (77.7%), and odynophagia or dysphagia (74.1%, n=251). In 82.7% of cases, patients presented with less than 7 days of symptoms. The average age was 45.2 years (95% confidence interval [CI] 43.8 to 46.6, n=249) and women represented 53.6% of cases. On imaging, calcifications were located anterior to C1-C2 in 74.2% of cases (n=163). The average time until resolution of symptoms was significantly faster in those treated with either corticosteroids (7.9 days, p=0.0046) or NSAIDs (10.0 days, p=0.043) than in those treated with an invasive procedure (16.4 days).

Conclusions: Retropharyngeal calcific tendinitis is characterized by neck pain, odynophagia, and neck stiffness. Calcifications are typically observed at the C1-2 level. This is a nonsurgical condition where performance of an invasive procedure appears to prolong the clinical course.

Methods and Materials

A PubMed search was conducted which identified a total of 246 published cases in the literature from a total of 77 papers published between 1951 and 2014. We included any case report from the literature in which the authors diagnosed RCT. Additionally we present a series of five cases from Northwestern Memorial Hospital from 2007-2013.

For each case, information was collected on the demographics, clinical features, laboratory values, imaging features (location of calcification, presence of effusion and/or soft tissue swelling and method of imaging), treatment and response to treatment. Statistics were calculated assuming a normal distribution.

Results

The incidence of clinical signs and symptoms is reported in Figure 1. Other rare symptoms reported included nuchal rigidity, otalgia, dizziness, nausea, vomiting, torticolis, hoarseness, and dyspnea.

Patient demographics are presented in Table 1. The range in age was from 5 to 74 years old with 89.2% of cases presenting between the ages of 30 and 69. Symptoms were present for less than 7 days prior to presentation in 82.7% of cases (Table 1).

A history of cervical spine trauma was seen in 24 patients and a recent history of an upper respiratory infection was reported in 9 patients.

On review of imaging the location of calcification was most common in C1-2 (Table 1).

The average length of treatment until resolution of symptoms was 10.4 days (95% CI 9.4 to 11.4 days, n=172) and those who received corticosteroids or NSAIDs recovered significantly faster than those who received an invasive procedure (p=0.0046 and p=0.043 respectively).

Figure 1. Incidence of clinical features

Discussion

The true prevalence of the classic symptoms of RCT, neck pain, neck stiffness and odynophagia are now clearer. The presentation is typically acute however a subacute presentation is occasionally seen.

The typical demographics of patients with RCT are now better understood when examining the reported cases in context with one another. RCT appears to be more common in middle age with 88.1% of cases presenting in patients between ages 30 and 60.

There have been no reports that have identified any other medical comorbidities associated with RCT. Minor neck trauma may predispose to RCT as 9.3% of cases reported minor neck trauma prior to the onset of symptoms.

We analyzed the average time until resolution and found that either those treated with corticosteroids or NSAIDs had significantly shorter duration of symptoms than those treated with an invasive procedure.

This studies main limitation is that our observations were restricted to only the information included in each case report, which varied among publications.

Conclusions

RCT is a self-limited condition characterized by acute onset neck pain, neck stiffness and difficulty swallowing with associated inflammation and calcification of the retropharyngeal soft tissues.

The typical demographics and clinical features of patients with RCT are now clearer when examining the reported cases in context with one another. Treatment with corticosteroids or NSAIDs results in a more rapid resolution of symptoms than an invasive procedure.

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Selected References


Please contact author for full list of all 81 references.