CLINICAL REPORT

Benign febrile cervicalgia due to calcific retropharyngeal tendinitis: Case study

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Accepted: 6 September 2010

KEYWORDS
Spine;
Retropharyngeal calcific tendinitis;
Prevertebral space

Summary Periarticular calcific tendinopathy has been well described, but no retropharyngeal locations have been reported in the surgical orthopedic literature. This pathology is a diagnostic pitfall, leading to fruitless invasive examinations and treatment. The clinical aspect is misleading, but pathognomic imaging can establish diagnosis. We report a case of febrile postoperative cervicalgia, initially suggestive of a septic complication, but in which imaging indicated retropharyngeal calcific tendinitis.

Introduction

Periarticular calcification in the shoulder, hip and elbow has been fully described and categorized as calcific tendinopathy. Similar retropharyngeal but prevertebral calcification has also been reported by ENT specialists and radiologists [1—3]. Calcific retropharyngeal tendinitis, however, has so far never been described in the French-language orthopedic literature. It is considered rare in the literature, but the frequency is not known with precision. It is generally asymptomatic, but can manifest as febrile cervicalgia, sometimes with postoperative onset, which can mislead diagnosis.

We here report a case of calcific retropharyngeal tendinitis following lumbar disectomy.

Observation

This 56 year-old man had undergone L4-L5 lumbar disectomy for discal hernia. He complained of sudden neck pain 36 hours postoperatively, with associated odynophagia and reduced cervical spine mobility. On admission, his temperature was 38.3°C. The surgical scar was clean, non-inflamatory and painless on palpation, which ruled out cicatricial abscess. Neurological examination was normal. There was an inflammatory syndrome on biological analy-
s, with elevated C-reactive protein (CRP) at 46 mg/L and erythrocyte sedimentation rate (ESR) of 41 mm/hr at hour one.

Given this aspect of febrile cervicalgia, we considered a diagnosis of infectious cervical spondylodiscitis. Emergency magnetic resonance imaging (MRI), however, failed to confirm this diagnosis, revealing none of the classic signs of spondylodiscitis: T1 hyposignal and T2 hypersignal of disc and adjacent vertebral plates (Fig. 1). There was no intracanal abnormality. Prevertebral T2 hypersignal was seen in the longus colli, indicating a liquid effusion (Fig. 2). These images suggested calcific retropharyngeal tendinitis. Non-steroid anti-inflammatory treatment was delivered intravenously for the first 48 hours and then per os for a total of two weeks.

Evolution quickly became favorable, with complete resolution of pain and apyrexia and normalization of biological factors within 48 hours. Clinical examination at last follow-up (24 months) found no abnormality or functional complaint.

Discussion

This is an original case, presenting a rare pathology, little known in orthopedics, but simple to treat. An initial diagno-

tic error, as frequently reported in the literature, however, may lead to unhelpful invasive procedures being performed.

Calcific retropharyngeal tendinitis was first described by Hartley in 1964 [4]. Calcific hydroxyapatite deposits are found in the longus colli, comprising three groups of muscles: a vertical group, connecting the transverse process of the first three thoracic vertebrae to the mid cervical spine; a superior oblique group, between the transverse process of vertebrae 3, 4 and 5 and the anterior arc of the atlas; and a minor inferior oblique group. Deposits are most often found in the superior oblique group.

The physiopathology of deposit release remains controversial, but most cases have been secondary to minor trauma or upper airway infection [1,5,6]. In the present case, the most likely hypothesis was trauma linked to intubation and the associated hyperextension maneuvers.

Few reports have been published to date, and these mainly in radiology and ENT journals. Series have mainly been small [7]. There have been no observations reported in the French-language orthopedic literature. The most frequently affected population is the 30 to 60 year-old age group [5], which corresponds to the present case. No sex-ratio predominance has been reported. Clinical diagnosis is based on a three-fold association of posterior neck pain without trigger location, severely restricted cervical spine mobility amplitude, and odynophagia. These signs may be accompanied by generally moderate fever. Moderately ele-
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Imaging is the essential means of establishing diagnosis, by precise radiological description [2,7,8]. Firstly, lateral cervical spine X-ray reveals tumefaction of the prevertebral soft parts, from C1 to C4. Calcifications are pathognomonic, but cannot always be seen on standard lateral views without benefit of hindsight. In the present case, initial cervical spine X-ray views were lacking, and the clinical suggestion of infectious spondylodiscitis led to performing MRI [6]. CT or MRI reveals retraction of prevertebral soft tissue and of the pharyngeal lumen. CT has better resolution for identifying prevertebral calcification (Fig. 3). Calcification generally extends from C1 to C3, although one case was described with calcification facing the C5-C6 disc [8]. MRI shows hypersignal on T2-weighted sequences for the C1-C4 prevertebral muscles. Gadolinium injection confirms diagnosis, revealing prevertebral liquid effusion.

The main differential diagnosis in imaging is with odontoid articular chondrocalcinosis with its typical “crowned...
tooth”’ aspect (Fig. 4), but which generally occurs in older patients. Presence of a supernumerary bone may also be suggested, but is a diagnosis of exclusion.

The main differential diagnoses given an aspect of “febrile angina” are spondylodiscitis, cellulitis or retropharyngeal abscess. MRI may be misleading, as calcification may be mistaken for a tiny abscess, but can rule out spondylodiscitis in case of a normal aspect in plates and discs. CT can also confirm the absence of vertebral plate pathology, and contrast injection may find no peripheral heightening, as would be typical in case of organized abscess (Fig. 5).

The suggestion of infectious diagnosis may lead to fruitless aggressive procedures, such as puncture or surgical biopsy [2,5]. In the present case, imaging enabled any such procedure to be avoided.

Treatment of calcific tendinitis is based upon non-steroid anti-inflammatory medication. Evolution quickly becomes favorable, with symptoms diminishing with two or three days and resolving within one or two weeks [1,2,5]. Intravenous corticotherapy is not necessary. One single case of recurrence has been reported [5,9].

Conclusion

The diagnosis of calcific retropharyngeal tendinitis needs to be known, and considered in case of postoperative or de novo cervicalgia with or without fever, associated with odynophagia. Imaging is pathognomic and should enable diagnosis, thereby avoiding aggressive initial management of suspected cervical infection.

Disclosure of interest

The authors declare that they have no conflicts on interest concerning this article.

References