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Radiology

## Spontaneous Retropharyngeal Hematoma: A Case Report

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#### Abstract

**Case Report** 

Retro-pharyngeal hematoma (SRH) is an unusual condition. It has multiple aetiological factors. The aim of our work is to report through observation the clinical manifestations, the contribution of imagery, in particular the CT scan in the diagnosis. the different etiopathogenic hypotheses as well as the therapeutic modalities of SHR. Our 62-year-old patient urgently consulted for a spontaneous cervical bruise. The various investigations have turned out to be inconclusive. Under surveillance, the development was spontaneously favorable.

Keywords: Retro-pharyngeal hematoma (SRH), clinical manifestations, CT scan, imagery.

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## **INTRODUCTION**

Retro-pharyngeal hematoma (SRH) is a rare condition, often of traumatic origin. The spontaneous appearance of a retro pharyngeal hematoma is exceptional. The aim of our work is to report through observation the contribution of imagery, in particular the CT scan in the diagnosis of this entity.

## **CAS REPORT**

62-year-old patient, with no pathological history, who has had a previous cervical bruise for 3 days associated with dysphagia and intermittent dyspnea. No notion of trauma, or anticoagulants or foreign body ingestion had been reported.

On examination, we found a patient, conscious, stable on the respiratory and hemodynamic

plan with existence of anterior cervical bruise associated with mixed dysphagia (Fig 1).

In front of this table, a blood count and a hemostasis test requested from the first line, were without anomalies. A CT scan indicated a retropharyngeal collection measuring 44x55 mm extended on 15.9 cm, from the oropharynx to below the level of the tracheal bifurcation with some tracheal deviation and narrowing. It was spontaneously high dense (52UH) with no enhancement after injection of PDC (Fig 2).

At the end of the data from the clinical examination and the imaging, the diagnosis of retropharyngeal hematoma was accepted and given the patient's respiratory and hemodynamic stability; the patient was hospitalized for close monitoring with good clinical course and regression of the hematoma.



Figure 1: Anterior cervical bruise

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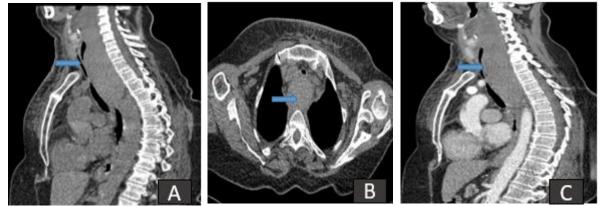


Figure 2: Unenhanced CT scan (sagittal A and axial B) and enhanced sagittal CT scan (C) demonstrating a retropharyngeal haematoma and midline shifting of the trachea (arrow). Precontrast CT scan shows an expansile mass lesion with slightly high density as compared with muscle. Postcontrast CT shows the lesion (arrow) with no enhancement

#### **DISCUSSION**

Blood effusion in the retropharyngeal space is rare because there are no large vessels or organs that can bleed at this level [1]. Until 2002, the Anglo-Saxon literature has only reported forty cases of retro or parapharyngeal hematoma of non-traumatic cause [1]. However, this hematoma is particularly dangerous. Because of its anatomical location, it can compress the upper airways (VAS) and quickly threaten the vital prognosis. This is partly explained by the anatomical particularity of the pharyngeal muscles, the insertions of which go to the origins, offering no resistance to the expansion of the hematoma [2]. The larynx can also be compressed, the arythenoids then close the vocal cords and obstruct the VAS [2]. The trachea, despite its cartilage structure, is compromised in extreme cases [1, 14].

The diagnosis of SHR can be difficult outside of an evocative context. Capp describes a classic triad of this table. It combines esophageal and tracheal compression, anterior displacement of the trachea and anterior cervical and thoracic bruise. The patient may odynophagia, dyspnea, consult for dysphagia, dysphonia or a change in tone of voice, a dry cough or a cervical pain wave [2, 3]. The examination found a pharyngeal bulge, a very red coloration or bruising in the pharyngotracheal mucosa. Dyspnea, the most alarming sign, is sometimes absent, especially at the start. In this case, the diagnosis may be confused with viral pharyngitis [3]. The time between the start of bleeding and the onset of dyspnea is variable, up to five days [4]. Likewise, a cervical bruise is not a constant sign. Exceptionally, examination of the oral cavity finds bruises in the soft palate and in the uvula [1]. This is due to the fact that the retro-pharyngeal hematoma can extend anterointerne and reach the parapharyngeal space. By occupying this space until above the upper constrictor of the pharynx, where the lifting muscle of the veil emerges, blood can infiltrate the palate. This sign would therefore be very derogatory since it indicates the abundance of bleeding [14].

Retropharyngeal haematoma is associated with a wide variety of etiologies. These include trauma (central venous cannulation [2], fishbone impaction [3]), haematological issues (anticoagulation [4], Polycythaemia Rubravera [5], hemophilia [6]), neoplasia [7], Epstein- Barr virus [8], vascular aneurysms [9], parathyroid lesions [10]. Spontaneous retropharyngeal haematoma is defined by the absence of any clear aetiology [15].

MR offers several advantages over CT in terms of multiplanar anatomic display and superior softtissue contrast, often allowing more specific diagnoses to be made. MR not only better depicted the extent of the retropharyngeal lesion but, most important, was able to identify acute and subacute blood products, thereby affecting both diagnosis and management. MR is sensitive to blood products in different stages of evolution because of the paramagnetic signal properties of the blood products, which change over the time depending on their dominant component (acute deoxyhemoglobin, subacute intra- or extracellular methemoglobin, and chronic hemichromes). The diagnosis of hematoma can be made as early as a few hours after the acute event, when hyperintensity is seen on both T1- and T2-weighted sequences, and this diagnosis is reinforced when changes due to magnetic susceptibility effects are demonstrated on gradient-echo sequences. Gradient echo's fast acquisition technique is more sensitive than is conventional spin-echo, especially fast spin echo sequences, in the detection of magnetic susceptibility effects induced by static field inhomogeneities arising from paramagnetic blood breakdown products, and this is particularly true for acute hematomas [2].

The management of SRH is dependent on an understanding of its etiology and potential complications. Close air- way monitoring is essential with the ability for active intervention by intubation or a surgical airway. Surgical evacuation of the haematoma is required in only a minority of cases as spontaneous resolution occurs with in a few weeks. However, there is a reported mortality rate of up to twenty per cent [15].

### CONCLUSION

The clinical picture of an SHR outside of an evocative context is misleading but the presence of dyspnea must alert the practitioner and lead to a radiological exploration. The etiological investigation must not delay the treatment which must guarantee the freedom of VAS. The absence of an etiology in SHR is recognized in clinical practice. The treatment which varies from monitoring to surgery will depend on the initial picture and the subsequent course. The expectant attitude is only envisaged at the cost of strict supervision in a specialized environment. The evolution remains fatal in 22% of cases [3].

**Conflicts of Interest:** The authors declare that they have no conflicts of interest.

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