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CASE REPORT

A case of traumatic retropharyngeal haematoma

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Introduction

The retropharyngeal space is a potential space lying between the posterior pharyngeal wall and the anterior wall of the vertebral column which normally measures 1–7 mm and contains loose areolar connective tissue.³ It provides an almost unrestricted space for an expanding haematoma, which in rare cases can cause airway compromise. The causes of a haematoma in this potential space include muscular injury, fractures and hyperextension strain injuries. The following case report highlights a case of a massive retropharyngeal haematoma, which particularly after mild trauma, is very uncommon.

Case report

Whilst pulling out of a junction, a 66-year-old housewife was hit side on by another car at around 30 mph. She complained of slight neck pain and dysphagia. Her cervical spine was immobilised and she was placed on a spinal board. In Accident & Emergency she was tender over C5. Lateral cervical spine views showed no fracture but a massive increase in pre-vertebral space (see Fig. 1). Two hours after the accident she was pain free, but due to concern over the radiograph, she had a CT scan which showed a large soft tissue swelling and a probably degenerative forward slip of 2 mm of C2 on C3. MRI scan revealed a

pre-vertebral mass reported as being consistent with haematoma secondary to anterior longitudinal ligament injury of massive proportions (Fig. 2). ENT examination revealed her left posterior pharyngeal wall was almost touching her epiglottis. Conservative management of the haematoma was adopted. A repeat MRI scan performed several days later showed no increase in size of the haematoma and so she was treated in a cervical collar. Flexion and extension views were obtained 10 days later and showed no evidence of instability, and repeat ENT examination was normal.

Discussion

Retropharyngeal haematoma is a rare occurrence with most cases reported in the anaesthetic, accident and emergency and ENT literature. Most have been associated with blunt head and neck trauma, neck infection, foreign body aspiration, cervical spine injury, great vessel injury, benign and malignant tumours, blood dyscrasias, rheumatoid arthritis and anti-coagulant therapy. Additionally, violent coughing, vomiting and muscular exercise have been reported as causes. Types of local cervical spine injury resulting in haematoma formation include odontoid and “hangman” fractures, hyperflexion or hyperextension sprain with disruption of posterior or anterior ligaments, compression fracture of the vertebral body, and interlocking or compression of the articular facets [4].

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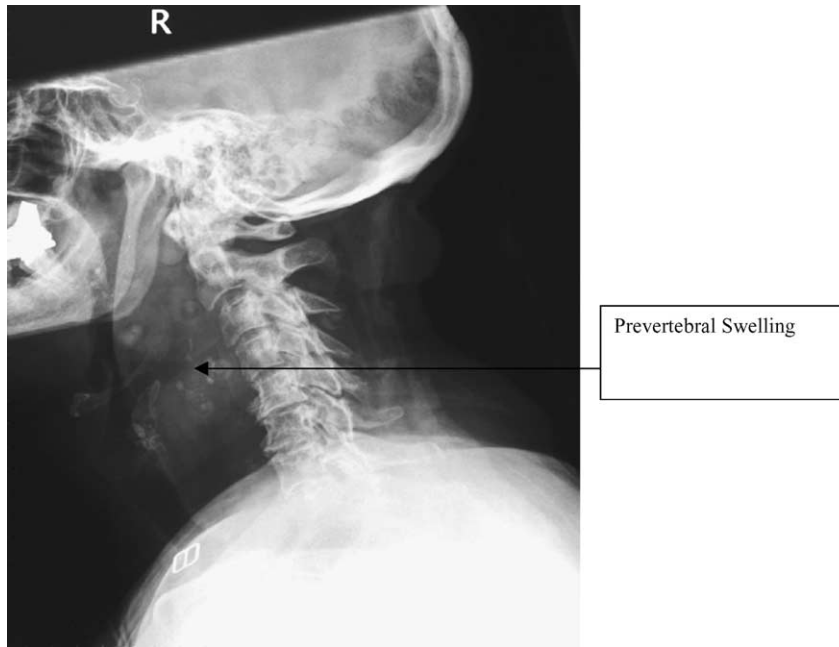


Figure 1 Lateral cervical radiograph showing massive soft tissue expansion between vertebrae and trachea.



Figure 2 MRI showing prevertebral haematoma (black) clearly between cervical vertebrae and oesophagus.

Because of the close proximity to the upper aerodigestive tract, collections of fluid in the retropharyngeal space will impinge on the pharynx, larynx, oesophagus, and/or trachea. The amount of fluid is usually directly related to the severity of signs and symptoms. Patients may report hoarseness, dysphagia, odynophagia and dyspnoea. Physical signs include compartmental swelling of the anterior neck, respiratory distress, drooling and limited range of motion of the neck. The haematoma is neither palpable nor visible externally; however, there may be unilateral or bilateral fullness of the neck. Rarely, subtle bulging of the retropharyngeal space and/or discolouration may be identified.¹

The normal radiographic dimensions of the retropharyngeal space is 1–7 mm. The lateral soft tissue X-ray of the neck is the most valuable view in assessing the retropharyngeal space.^{2,5} On rough estimation, the space should be less than half the width of the corresponding cervical vertebra.

Treatment of patients with retropharyngeal haematoma should first be directed at airway control. If the patient does not have any airway compromise, close regular observation must be maintained. Surgical exploration and evacuation of the haematoma are usually reserved for expansile haematomas or those that do not resolve during a 2–4 week post-injury period as the body lyses the clot.

Summary

This case highlights an initially unremarkable clinical presentation of a patient with seemingly

minor trauma but with significant radiological findings. Thanks to swift recognition of the condition she was monitored by the specialist personnel necessary to provide immediate life saving surgery if deemed necessary. The patient has thankfully made a full and complete recovery.

In conclusion, it is important to be aware that even if the cervical spine is cleared initially, repeat radiographs may need to be taken to recognise an expanding haematoma that may result in death if not diagnosed. It is important to recognise underlying trauma pathology and treat accordingly with early specialist referral imperative (ENT and Orthopaedic) to avoid loss of life.

References

1. Coleman JA, Johnson JT. Retropharyngeal hematoma: complication of cervical fracture. *Otolaryngol Head Neck Surg* 1986;94(3):387–9.
2. Davis WL, Harnsberger HR, Smoker WR, Watanabe AS. Retropharyngeal space: evaluation of normal anatomy and diseases with CT and MR imaging. *J Article Radiol* 1990;174(1): 59–64.
3. O'Donnell JJ, Birkinshaw R, Harte B. Mechanical airway obstruction secondary to retropharyngeal haematoma. *Eur J Emerg Med* 1997;4(3):166–8.
4. Penning L. Prevertebral haematoma in cervical spine injury: incidence and aetiologic significance. *Am J Roentgenol* 1981;136(3):553–61.
5. Wong YK, Novotny CM. Retropharyngeal space—a review of anatomy, pathology, and clinical presentation. *J Otolaryngol* 1978;7(6):528–36.