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Retropharyngeal abscess – an unusual complication of anorexia nervosa

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Abstract
An unusual case of an adult female with anorexia nervosa, who developed a retropharyngeal abscess, is presented. This case is reported both because of the paucity of reports on retropharyngeal abscess and because of the dramatic unusual aetiology.

Key words: Anorexia nervosa; Abscess, retropharyngeal

Introduction

To our knowledge there has been no previously documented case of retro-pharyngeal abscess complicating an eating disorder, in the literature. Furthermore, there has been only one previous reported case of a self-induced retro-pharyngeal abscess. Our case illustrates the determined efforts patients with eating disorders will make, to control their body weight. Additionally, it highlights the usefulness of the loss of normal laryngeal crepitus as a clinical sign in the diagnosis of retro-pharyngeal collections, and the value of appropriate radiology to confirm that diagnosis and institute treatment.

Case report

A 22-year-old female, of Greek-Cypriot extraction presented to a district hospital complaining of persistent soreness in her throat. This followed an incident where she had inserted a fork into her throat in an attempt to induce vomiting after a period of binge eating. On presentation, she had minor abrasions to the posterior pharyngeal wall, but was admitted for psychological assessment and observation. She was, in addition, given intravenous fluids for 24 hours and oral broad spectrum antibiotics.

She had a three-year history of an eating disorder which involved binge eating, digital induction of vomiting, regular usage of oral laxatives and frequent deception about her eating habits. She had had one previous admission to hospital for management of her eating disorder in Cyprus, where she had been given intravenous fluids and a two session course of psychotherapy. There was no history of tuberculosis.

Following her discharge from hospital she continued to complain of soreness in her throat and generally felt lethargic. She did not have a cough. She was referred for an otolaryngological opinion. Examination revealed a soft tissue swelling in the posterior pharyngeal wall, with loss of the normal laryngeal crepitus in her neck. There was no noticeable mucosal injury and examination of the upper aero-digestive tract was otherwise unremarkable. There was no evidence of spinal disease.

The patient was pyrexial, 38°C, with a white cell count of 21.2×10^9/l. A lateral soft tissue neck X-ray and barium swallow confirmed the presence of a soft tissue lesion in the retro-pharyngeal space (Figure 1). A computerized

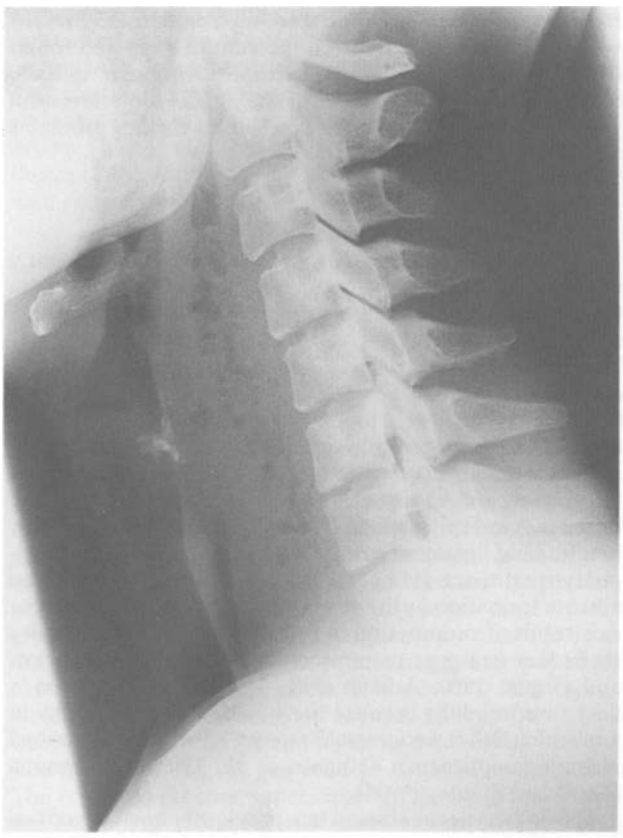

FIG. 1
Lateral soft tissue neck X-ray demonstrating a significant increase in the retropharyngeal space with multiple small oval collections of gas. There is no evidence of bone destruction or loss of the normal curvature of the cervical spine.

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FIG. 2

CT scan of thoracic inlet showing extension of the retropharyngeal abscess inferiorly, into the upper mediastinum, behind the trachea and great vessels.

tomography (CT) scan delineated the extent of the lesion further (Figure 2). Incision and drainage via a vertical incision along the anterior border of sternomastoid was performed. The abscess cavity was found to extend from the skull base superiorly to the posterior mediastinum inferiorly and around 15 mls of pus was aspirated. A large Yates drain was left *in situ,* and a nasogastric tube inserted.

The patient was continued on intravenous fluids and commenced on cefuroxime and metronidazole. *Proteus* was grown subsequently from the culture swab and found to be sensitive to the cefuroxime. Although initially reluctant to be fed enterally, she made an uneventful post-operative recovery. She has had no further problems to date.

Discussion

Medical complications are known to occur frequently during the follow-up of patients with eating disorders (Alvin *et al.*, 1993). Acute surgical complications are less common. Finger-induced purging, diet pill, diuretic and laxative abuse are well recognized features of these conditions (Hall *et al.*, 1992). We can find no previous documentation however of the usage of an implement such as a fork to induce vomiting.

In adults, an abscess in the retropharyngeal space is uncommon and nearly always due to tuberculous disease of the cervical spine which has spread through the anterior longitudinal ligament of the spine to reach the retropharyngeal space (Hibbert, 1987). In infants and children abscess formation in the retropharyngeal space may occur as a result of suppuration in retropharyngeal lymph nodes secondary to upper respiratory tract infection (Bhargava and Gupta, 1990; Adiego *et al.*, 1993). This condition is very rare in adults because these lymph nodes atrophy in adult life. Other aetiological factors have been described including septicaemia (Hughes *et al.*, 1993) and trauma (Sethi and Stanley, 1994).

Retropharyngeal abscess has previously been described as a consequence of a self-induced, but nonetheless, accidental injury. In Adams' paper (Adams and Davies, 1962) a builder holding a copper tube in his mouth accidently walked into a door, causing a retropharyngeal abscess. Our case differs because there was an element of intent to cause self-harm.

A lateral neck X-ray is still considered the most reliable method of confirming a diagnosis of retropharyngeal abscess (Bhargava and Gupta, 1990). A true lateral X-ray is necessary for correct interpretation (Said *et al.*, 1979). The lateral soft tissue neck radiograph in Figure 1 clearly demonstrates a significant increase in the retropharyngeal space with multiple small oval collections of gas. There is no evidence of bone destruction or loss of the normal curvature in the cervical spine.

CT scanning is of particular value in assessing the extent of the abscess cavity (White, 1985). CT scan of the thoracic inlet (Figure 2) shows extension of the retropharyngeal abscess inferiorly, into the upper mediastinum, behind the trachea and great vessels.

These abscesses may be drained by either a transoral or cervical approach (Ballantyne, 1986). Transoral aspiration or incision and drainage at the point of maximal convexity is the usual approach adopted. The cervical approach, using an incision along the anterior border of the sternomastoid, gives better access to the superior and the inferior limits of the abscess cavity. Via the cervical incision, the abscess may be approached anterior to, or posterior to, the carotid sheath. This latter approach allows the surgeon to reach those abscesses which lie high in the neck. The cervical approach facilitates the insertion of a drain, but obviously carries the disadvantage of a scar in the neck.

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