Wisdom Tooth's Revenge: Retropharyngeal Abscess and Mediastinitis after Molar Tooth Extraction

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ABSTRACT

Retropharyngeal abscess is potentially associated with high morbidity and mortality as a result of its direct anatomical connection with the mediastinum. Therefore, knowledge of the relevant anatomy is essential for recognizing the presence and extent of disease in a timely manner. In this case report, we aim to review the pertinent anatomy and patterns of spread of infection from a full blown deep neck space infection to result in mediastinitis and empyema.

CASE REPORT

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An otherwise healthy 24 year old female who had undergone an uncomplicated removal of all four third molar teeth 3 weeks earlier, presented to the emergency room with increasing throat pain. The patient reported "spitting pus" that was “dripping down her throat”, cough, pain on inspiration and “feeling feverish”. In the interim, she had been treated with oral antibiotics due to fever and throat pain, with no relief of symptoms. Physical examination revealed right sided neck swelling and decreased breath sounds on the left. She was found to be septic, with a low-grade fever of 37.8 degrees Celsius and leukocytosis with total leukocyte count of 14000 cells/ml^3 of blood (normal range: 4500-11000). Review of her outside facility contrast enhanced computerized tomography (CT) of the neck from 2 weeks prior to her emergency room visit showed rim enhancing interconnected fluid collections within the deep spaces of the neck, including the retropharyngeal, mucosal pharyngeal, prevertebral, and bilateral carotid spaces (Figure 1), with these fluid collections extending inferiorly towards the mediastinum. A repeat contrast enhanced neck CT and an additional chest CT were performed in the emergency room. The neck CT redemonstrated multiple deep neck space abscesses. Chest CT revealed large loculated collections in the mediastinum and left pleural space (Figure 2).

She was taken to the operating room for urgent thoracotomy and partial decortication of the left lung, with drainage of 750 ml of purulent material. A French Blake drain was placed into the mediastinum and two chest tubes were placed into the left pleural space. A Wound VAC (Vacuum Assisted Closure Device; KCI International, San Antonio, TX) was placed into the chest incision. This was followed by incision and drainage of the deep neck space abscesses, with placement of two Penrose drains in the superior and inferior abscess cavities. The neck incision was left partially open and was packed with absorbent dressings. A week later, reexploration of the chest and further partial decortication of the left lung was performed due to increased drainage from the chest tube and worsening leukocytosis.

HIV test and immunoglobulin panel were negative for immunosuppression. Abscess cultures grew mixed oral flora organisms including alpha Streptococcus, Enterobacter, anaerobe gram-negative bacilli and yeast.

Meanwhile, the patient complained of persistent “water dripping down her throat” during daily irrigations through her

neck incision. Fluoroscopic examination of the neck with oral water soluble contrast revealed passage of the contrast from the oropharynx into the enlarged and air-containing retropharyngeal space through a fistula (Figure 3). An enteric tube was placed for feeding and the fistula was left for spontaneous healing. Follow-up fluoroscopy 1 week later showed absence of contrast passage into the retropharyngeal space, consistent with healing of the fistula. The retropharyngeal collection was smaller in size, indicating abscess resolution in progress (Figure 4).

Fortunately, with treatment using broad spectrum intravenous antibiotics, negative-pressure chest wound therapy and abscess irrigations, the patient's condition progressively improved. The drains and Wound VAC were removed, the neck incision was closed with sutures and she was subsequently discharged after 3 weeks of hospital stay. On outpatient follow-up appointments 1 and 2 weeks after discharge, the patient had no complaints, was able to eat and drink normally, and her neck and thoracotomy incisions were well healed.

DISCUSSION

Etiology & Demographics:

Retropharyngeal abscesses are most commonly seen in children aged 2-4 years [1], but they have been reported at any age, including infants and adults. In a review of 30 patients with retropharyngeal abscess, Nwaorgu et al. reported that 77% of the cases consisted of children under the age of 5, 6% were aged 5-18 years, and 17% were 18 years or older [2]. Its incidence is 0.22 - 1 in 10,000 in children and much less in adults [3]. There is a slight male predominance, with males constituting about 55% of all cases [4-6]. Retropharyngeal infections constitute 22% of pediatric head and neck space infections [7]. Half of the children with retropharyngeal abscess were found to have antecedent respiratory infection [8]. This association results from the fact that young children possess lymph nodes within the retropharyngeal space, which undergo atrophy before puberty. These lymph nodes drain most of the areas affected by respiratory and ear infections such as the nasopharynx, adenoids, posterior paranasal sinuses, middle ear, and Eustachian tube [7]. As such, infections of these regions render these nodes prone to suppurative lymphadenitis and eventually to abscess formation.

In adults, the common causes of retropharyngeal infections include penetrating trauma, odontogenic sepsis and peritonsillar abscess. Examples of penetrating trauma include accidental ingestion of fishbone or chicken bone, and iatrogenic injuries during instrumentation of the oral cavity and pharynx, such as dental procedures, endotracheal intubation, or nasogastric tube insertion [9]. In our patient, the retropharyngeal abscess and its fistulous communication with the oropharynx may have been caused by inadvertent iatrogenic trauma during the dental procedure, or by seeding into the tonsils and subsequent spread from an odontogenic peritonsillar abscess.

Risk factors for odontogenic infections include immunosuppression such as HIV infection and chronic steroid use, excessive antibiotic use, malnutrition, alcoholism, and systemic diseases such as diabetes, heart failure, liver disease, kidney disease, and hyper- or hypothyroidism [10].

Relevant Anatomy and Clinical Correlations

A basic understanding of cervical fascia is important for understanding the deep neck space anatomy. Therefore, the cervical fascia and relevant deep neck spaces are going to be discussed together in this review, with an approach from the anterior to the posterior aspect. It is also useful to note that the hyoid bone is used as a landmark to localize different neck spaces. The neck is divided to supra- and infrahyoid compartments. Some of the deep neck spaces are confined within one of these two compartments, while others involve both compartments. We will discuss the infrahyoid neck spaces in more detail, since most of these spaces extend to mediastinum and infection of these spaces are associated with mediastinitis.

Structures of the human neck are enveloped by the superficial and deep cervical fasciae, which divide the neck into different compartments. The superficial fascia is a thin layer of connective tissue that contains subcutaneous neck tissues and the platysma muscle, and encloses all other neck structures circumferentially. The deep fascia is further divided into three layers, which constitute borders of many of the neck spaces (Figure 5). These layers are the superficial (investing), middle (paratracheal) and deep (prevertebral fascia) layers.

Like the superficial cervical fascia, the superficial layer of the deep fascia encloses all of the deeper structures of the neck, including the muscles of the neck, the parotid and the submandibular glands, and the contents of the middle and deep layers (Figure 5). In the suprahyoid neck, the middle layer encloses the pharyngeal mucosal space, which consists of pharyngeal mucosal surfaces, along with Waldeyer's tonsillar ring and lymph nodes. In the infrahyoid neck, it circumscribes the visceral space. As its name implies, the visceral space contains all of the viscera of the infrahyoid neck, i.e. thyroid and parathyroid glands, esophagus, and trachea (Figure 5). Along with the trachea and esophagus, the visceral space extends into the mediastinum.

The retropharyngeal space, located between the middle and deep layers of the deep fascia, freely descends to the T1-T6 level and only contains loose fat tissue in adults. Thus it serves as a free passageway for infection spread to the mediastinum (Figure 5).

The deep layer of the deep fascia has two portions: the alar portion anteriorly and the prevertebral portion posteriorly. The alar portion separates the retropharyngeal space from the danger space, and also constitutes the lateral borders of these two spaces (Figure 5). The danger space is a potential space, meaning that it is normally empty with its walls apposed against each other. As its name implies, infection spread to the danger space is associated with a very high risk of mediastinitis due to its caudal extension to the level of the diaphragm. The alar portion is very thin and is generally not

visible on imaging, rendering a retropharyngeal space collection indistinguishable from a danger space collection [11]. Clinically, the distinction of these two spaces is not relevant, as both of them extend to the mediastinum and their infections generally coexist.

The second portion of the deep layer of the deep fascia is the prevertebral portion (Figure 5). It encloses the perivertebral space, which contains the vertebral column and associated arteries, veins, nerves and muscles. The anterior aspect of the perivertebral space is named prevertebral space and the posterior aspect is named the paraspinal space. The prevertebral space extends along the vertebral column all the way to the coccyx. It is the gateway between the danger space and the vertebral column, therefore infection in the danger space may cause vertebral osteomyelitis or epidural abscesses and vice versa. Additionally, hematogenous seeding into the prevertebral space is also fairly common, especially in the presence of risk factors such as diabetes, intravenous drug use, immunosuppression or alcoholism [12].

Lastly, the carotid space is made up of all three layers of deep cervical fascia (Figure 5). It extends from the skull base to the aortic arch and contains the carotid arteries, internal jugular veins and cranial nerves 9-12.

In our review, we have not discussed in detail other deep neck spaces such as the parapharyngeal, masticator, parotid, buccal and submandibular spaces, since they do not directly extend into mediastinum. These are enclosed spaces in the suprahyoid neck and are useful to the radiologist for lesion localization. However, infection in any of these spaces may also indirectly result in mediastinitis by local spread to the abovementioned neck spaces.

Clinical & Imaging Findings:

The common clinical presentation of retropharyngeal abscess in children and adults includes acute or subacute onset of neck pain, fever, sore throat, neck mass, respiratory distress, dysphagia, odynophagia, limitation of neck movements, and torticollis [1, 11, 13]. Airway compromise is not common but can occur, with 3% of patients presenting with stridor [11]. Physical examination reveals a neck mass in 55% of cases [1].

Both contrast enhanced CT and magnetic resonance imaging (MRI) are very useful for the characterization of retropharyngeal collections [11]. CT has the advantage of shorter acquisition time, lower cost, and less likelihood of requiring sedation or anesthesia, and it is the preferred imaging modality in some institutions, including the author's. MRI has a greater ability to pinpoint the exact origin and extent of retropharyngeal and prevertebral infections, to identify possible associated complications, and to detect osteomyelitis [14].

On multiplanar imaging (both CT and MRI), a retropharyngeal abscess appears as a peripherally enhancing fluid collection with oval or rounded configuration, which can symmetrically and bilaterally involve the retropharyngeal space and cause moderate-to-marked mass effect [11]. On MRI, retropharyngeal abscess is seen as a T1 hypointense, T2 hyperintense, generally diffusion restricting collection with an enhancing wall on the postcontrast T1 sequence. There may be associated T2 hyperintensity in the adjacent soft tissues due to edema.

In cases with penetrating trauma, the penetrating agent may be directly visualized. Possible complications should be investigated such as airway compromise, vascular complications such as internal jugular vein (IJV) thrombosis, carotid artery pseudoaneurysm or rupture, extension into other neck spaces, vertebral osteomyelitis, epidural abscess, mediastinitis, pleuritis, empyema, pericarditis and necrotizing fasciitis [11, 15].

Ultrasonography has limited utility in the assessment of deep neck space infections due to field-of-view limitations. Although this modality has been greatly replaced by cross-sectional imaging for initial diagnostic evaluation, ultrasonography can occasionally be employed for treatment purposes. Ultrasonography guided deep neck abscess drainage has been recommended as a less invasive alternative to surgical incision and drainage in a select group of patients with well-defined, uniloculated abscess as demonstrated by contrast enhanced CT [16-18].

Treatment & Prognosis:

Retropharyngeal abscesses are usually managed with surgical drainage and intravenous antibiotics due to the high morbidity and mortality of associated complications. These infections are mostly polymicrobial, and therefore require the use of broad spectrum antibiotic coverage against gram-negative, gram-positive, anaerobe bacteria and possibly antifungal agents. Its mortality has decreased to 1-2% with the advent of antibiotics and easy accessibility to CT [6, 19]. However, if complicated by mediastinitis, mortality approaches 25% [20].

Differential Diagnosis:

The differential diagnoses of retropharyngeal collections include retropharyngeal edema, suppurative lymphadenitis (especially in children), and retropharyngeal abscess. It is important to know the different imaging characteristics, since management differs for each.

Retropharyngeal edema refers to noninfectious fluid accumulation in the retropharyngeal space. This fluid accumulation occurs as a reaction to disease processes in nearby structures such as infection, radiotherapy, IJV thrombosis, and retropharyngeal calcific tendinitis. Its management involves treating the underlying cause. The typical multiplanar imaging finding for this entity is bilateral symmetrical involvement of the retropharyngeal space. However, as opposed to retropharyngeal abscess, the mass effect is only mild and there is no rim enhancement. The findings are commonly accompanied by evidence of the causative disease process nearby; such as adjacent infection, thrombosis or calcified longus colli tendons [11].

Suppurative retropharyngeal lymph nodes, if not very large, are initially managed with intravenous antibiotics with close follow up. If the nodes are very large or do not regress with antibiotics, surgical drainage is performed to avoid the risk of rupture and conversion into a retropharyngeal abscess. Imaging findings include unilateral involvement of the retropharyngeal space, round or ovoid shape with rim enhancement, and variable mass effect depending on the size [11].

TEACHING POINT

The retropharyngeal space is a deep neck space that has mediastinal extension and is in close proximity with vital neck structures such as the airway, great vessels of the neck, and epidural space; and therefore is associated with various detrimental complications. Contrast enhanced CT or MRI can be performed for its evaluation, and a retropharyngeal abscess usually presents as a rim enhancing fluid collection with oval or rounded configuration, symmetrically and bilaterally involving the retropharyngeal space and causing mass effect.

REFERENCES

1. Craig FW, Schunk JE. Retropharyngeal abscess in children: clinical presentation, utility of imaging, and current management. Pediatrics. 2003 Jun 1;111(6):1394-8.

2. Nwaorgu OG, Onakoya PA, Fasunla JA, Ibekwe TS. Retropharyngeal abscess: a clinical experience at the University College Hospital Ibadan. Niger J Med. 2005;14(4):415-8. PMID: 16353704

3. Novis SJ, Pritchett CV, Thorne MC, Sun GH. Pediatric deep space neck infections in US children, 2000-2009. Int J Pediatr Otorhinolaryngol. 2014 May 1;78(5):832-6. PMID: 24636748

4. Abdel-Haq NM, Harahsheh A, Asmar BL. Retropharyngeal abscess in children: the emerging role of group A beta hemolytic streptococcus. South Med J. 2006 Sep;99(9):927-31. PMID: 17004526

5. Coticchia JM, Getnick GS, Yun RD, Arnold JE. Age-, site-, and time-specific differences in pediatric deep neck abscesses. Arch Otolaryngol Head Neck Surg. 2004 Feb 1;130(2):201-7. PMID: 14967751

6. Ridder GJ, Technau-Ihling K, Sander A, Boedeker CC. Spectrum and management of deep neck space infections: an 8-year experience of 234 cases. Otolaryngol Head Neck Surg. 2005 Nov;133(5):709-14. PMID: 16274797

7. Ungkanont K, Yellon RF, Weissman JL, Casselbrant ML, GonzÁAlez-Valdepena H, Bluestone CD. Head and neck space infections in infants and children. Otolaryngol Head Neck Surg. 1995 Mar;112(3):375-82. PMID: 7870436

8. Philpott CM, Selvadurai D, Banerjee AR. Paediatric retropharyngeal abscess. J Laryngol Otol. 2004 Dec;118(12):919-26. PMID: 15667676

9. Harkani A, Hassani R, Ziad T, Aderdour L, Nouri H, Rochdi Y, Raji A. Retropharyngeal abscess in adults: five case reports and review of the literature. ScientificWorldJournal. 2011;11:1623-9. PMID: 22125422

10. Umeda M, Minamikawa T, Komatsubara H, Shibuya Y, Yokoo S, Komori T. Necrotizing fasciitis caused by dental infection: a retrospective analysis of 9 cases and a review of the literature. Oral Surg Oral Med Oral Pathol Oral Radiol Endod. 2003 Mar 1;95(3):283-90. PMID: 12627098

11. Hoang JK, Branstetter IV BF, Eastwood JD, Glastonbury CM. Multiplanar CT and MRI of collections in the retropharyngeal space: is it an abscess?. AJR Am J Roentgenol. 2011 Apr;196(4):W426-32. PMID: 21427307

12. Reynolds SC, Chow AW. Severe soft tissue infections of the head and neck: a primer for critical care physicians. Lung. 2009 Oct 1;187(5):271-9. PMID: 19653038

13. Tannebaum RD. Adult retropharyngeal abscess: a case report and review of the literature. J Emerg Med. 1996 Mar 1;14(2):147-58. PMID: 8740744

14. Thayil N, Chapman MN, Saito N, Fujita A, Sakai O. Magnetic resonance imaging of acute head and neck infections. Magn Reson Imaging Clin N Am. 2016 May 1;24(2):345-67. PM ID: 27150323

15. Qureshi HA, Ference EH, Tan BK, Chandra RK, Kern RC, Smith SS. National trends in retropharyngeal abscess among adult inpatients with peritonsillar abscess. Otolaryngol Head Neck Surg. 2015 Apr;152(4):661-6. PMID: 25605696

16. Yeow KM, Liao CT, Hao SP. US-guided needle aspiration and catheter drainage as an alternative to open surgical drainage for uniloculated neck abscesses. J Vasc Interv Radiol. 2001 May 1;12(5):589-94. PMID: 11340137

17. Chang KP, Chen YL, Hao SP, Chen SM. Ultrasound-guided closed drainage for abscesses of the head and neck. Otolaryngol Head Neck Surg. 2005 Jan 1;132(1):119-24. PMID: 15632922

18. Dabirmoghaddam P, Mohseni A, Navvabi Z, Sharifi A, Bastaninezhad S, Safaei A. Is ultrasonography-guided drainage a safe and effective alternative to incision and drainage for deep neck space abscesses?. J Laryngol Otol. 2017 Mar;131(3):259-63. PMID: 28124631

19. Wang LF, Kuo WR, Tsai SM, Huang KJ. Characterizations of life-threatening deep cervical space infections: a review of one hundred ninety-six cases. Am J Otolaryngol. 2003 Mar 1;24(2):111-7. PMID: 12649826

20. Mora R, Jankowska B, Catrambone U, Passali GC. Descending necrotizing mediastinitis: ten years' experience. Ear Nose Throat J. 2004 Nov 1;83(11):774. PMID: 15628636

FIGURES

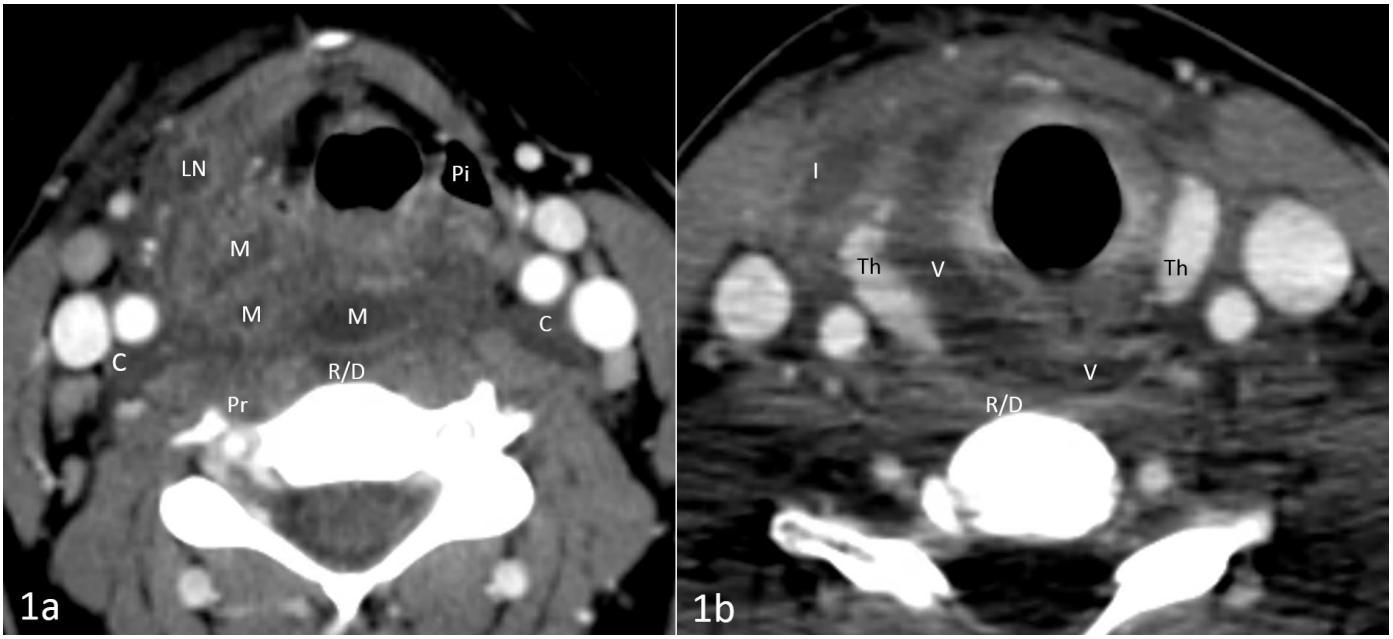

Figure 1: 24 year old female with deep neck abscesses seen on this outside facility CT performed 2 weeks before her presentation to the emergency room.
Findings: (a) Contrast enhanced neck CT at the suprahyoid neck level demonstrates multiple, rim-enhancing, interconnected fluid collections within the deep spaces of the neck, including mucosal pharyngeal [M], retropharyngeal/danger [R/D], prevertebral [Pr], and bilateral carotid spaces (C). A suppurative lymph node [LN] is also present. Note the obliteration of the right piriform recess due to soft tissue edema within the mucosal pharyngeal space. The left piriform recess [Pi] is labeled for reference. (b) Contrast enhanced neck CT at the infrahyoid neck level. Rim enhancing fluid collections are present within the visceral [V] and retropharyngeal/danger [R/D] spaces, as well as in between the fasciae of the infrahyoid neck muscles [I]. Th: Thyroid gland.
Technique: GE Lightspeed RT 16 CT Scanner, 120 kV, 46 mAs, 2.5 mm slice thickness, axial soft tissue window, with 98 ml of Omnipaque 300.

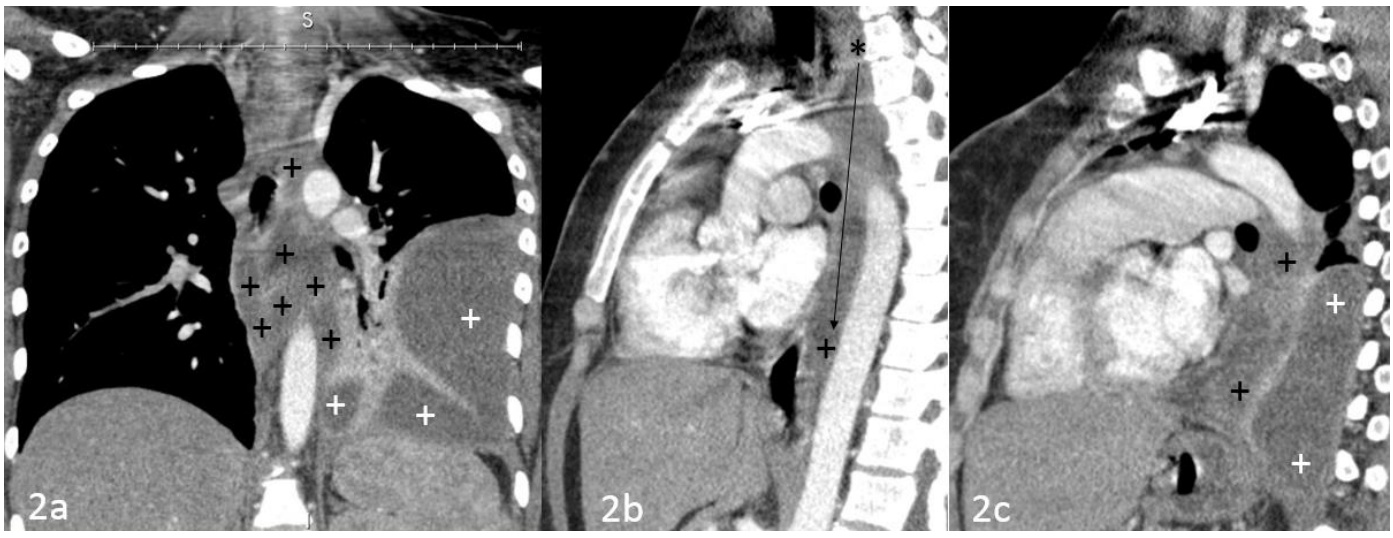

Figure 2: 24 year old female with mediastinitis and empyema secondary to deep neck space abscesses.
Findings: Note the heterogeneous fluid collection within the mediastinum (black plus signs, 2a-c), extending from the danger space (asterisk, 2b). The black arrow in 2b depicts the path of spread. In addition there is a large, multiloculated left pleural fluid collection (white plus signs, 2a and 2c) in contiguity with the mediastinal fluid collection.
Technique: Siemens SOMATOM Definition AS Plus CT Scanner, 120 kV, 229mAs. (a) 1.5 mm slice thickness, coronal soft tissue window. (b, c) 1.5 mm slice thickness, sagittal soft tissue window, with 25 ml of Omnipaque 350.

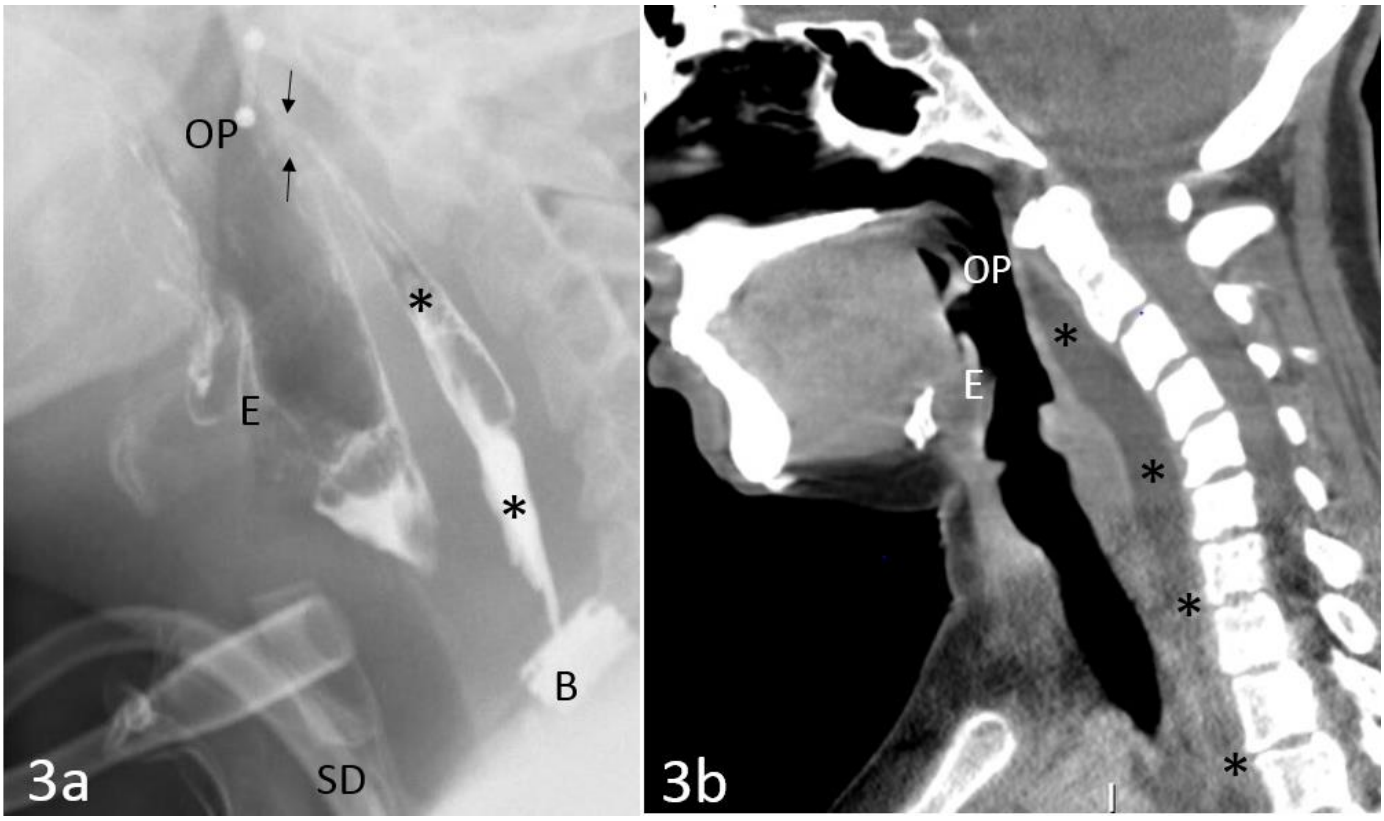

Figure 3: 24 year old female with retropharyngeal abscess.
Findings: (a) Fluoroscopic imaging of the neck during ingestion of oral water soluble contrast demonstrates passage of contrast into the retropharyngeal space [asterisk] through a fistula [arrows] at the posterior oropharyngeal wall. The surgical drain [SD] and hospital gown buttons [B] overlie the neck. (b) CT correlation of the retropharyngeal abscess, extending from the posterior wall of the oropharynx [OP] inferiorly to at least T3 vertebral level. The CT image is from the day of the admission. E: Epiglottis. OP: Oropharynx.
Technique: (a) Philips EasyDiagnost Eleva DRF, lateral view. (b) Siemens SOMATOM Definition AS Plus CT Scanner, 100 kV, 193mAs, 2 mm slice thickness, sagittal soft tissue window, with 25 ml of Omnipaque 350.

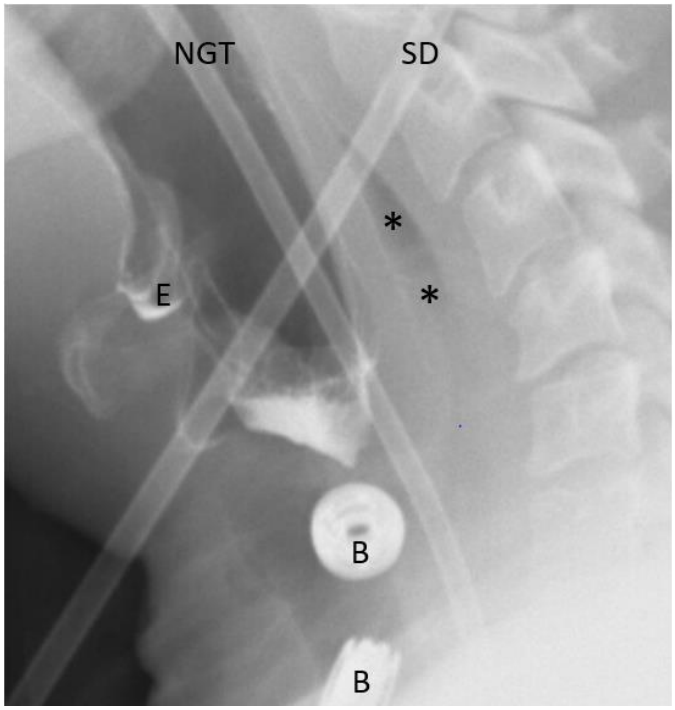

Figure 4: 24 year old female with retropharyngeal abscess.
Findings: 1 week follow-up fluoroscopic examination of the neck during ingestion of oral contrast demonstrates absence of contrast passage into the retropharyngeal space, suggesting healing of the fistula. The air-containing retropharyngeal collection [asterisks] seen posterior to the esophagus is smaller in size, suggesting abscess resolution in progress. A nasogastric tube [NGT] is in place. The surgical drain [SD] and hospital gown buttons [B] overlie the neck. E: Epiglottis
Technique: Philips EasyDiagnost Eleva DRF, lateral view.

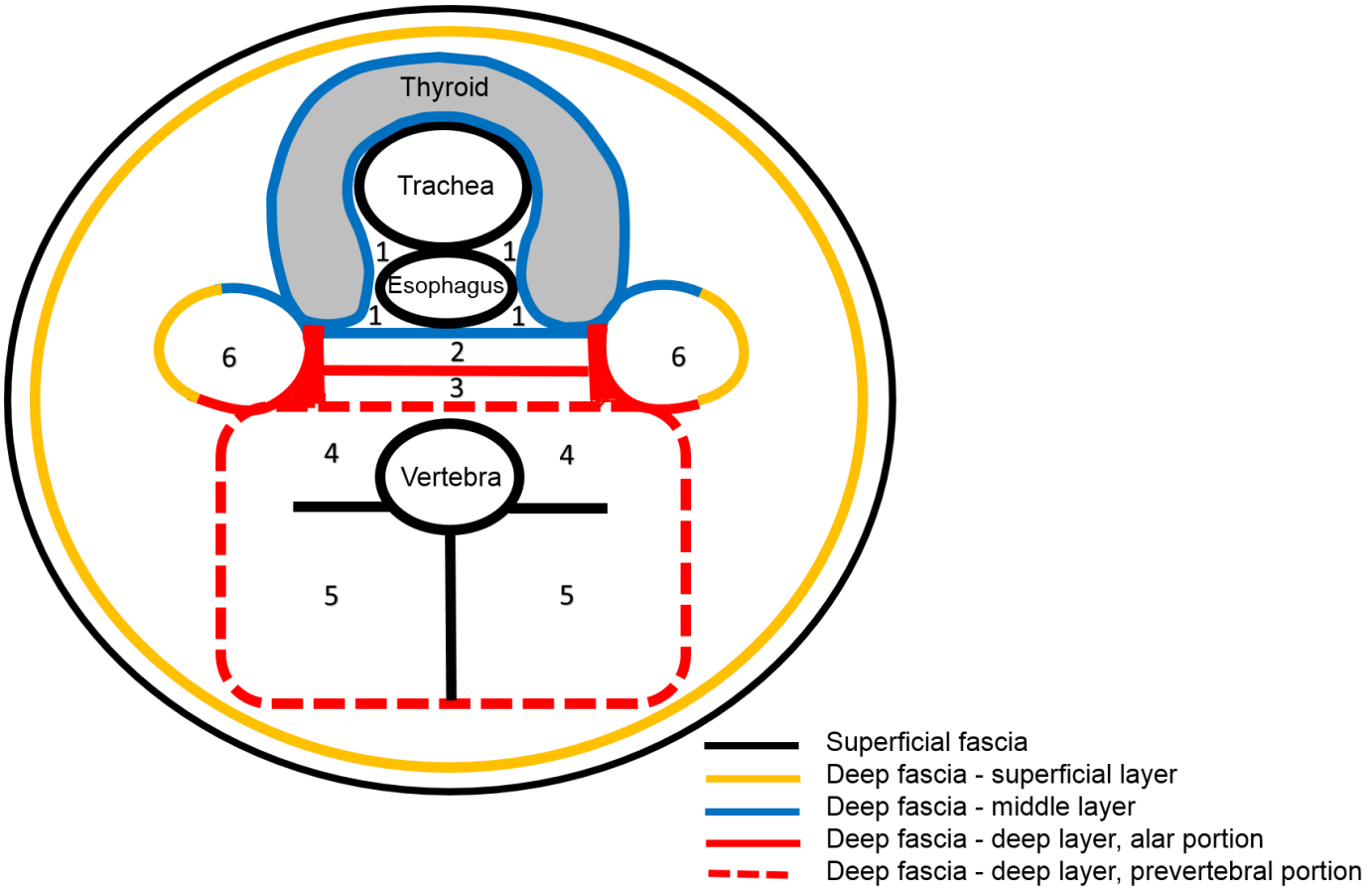

Figure 5: Schematic representation of the fasciae of the infrahyoid neck and associated deep neck spaces. All of the deep neck spaces shown in this figure extend to at least upper mediastinum. These structures have the same configuration in the suprahyoid neck except for the visceral space, where it is replaced by the mucosal pharyngeal space.
1: Visceral space. Contains thyroid, trachea, and esophagus. Extends into mediastinum.
2: Retropharyngeal space. Contains fat (also lymph nodes in children). Extends into upper mediastinum.
3: Danger Space. Potential space, normally does not have any contents. Extends to the diaphragm.
4, 5: Perivertebral space, prevertebral (4) and paraspinal (5) components. Contain vertebrae and associated arteries, veins, nerves and muscles. Extends along the vertebral column to the coccyx.
6: Carotid space. Contains carotid arteries, internal jugular veins and cranial nerves 9-12. Extends into the aortic arch.

Etiology	In children: Upper respiratory and ear infections; In adults: Penetrating trauma, odontogenic sepsis, or contiguous infection from nearby neck structures.
Incidence	In children: 0.22 - 1 in 10,000 patients [3]. In adults: Much rarer.
Gender ratio	About 11:9 (Male : Female) [4,6]
Age predilection	83% in children, 17% in adults [2]
Risk factors	HIV, chronic steroid use, excessive antibiotic use, malnutrition and alcoholism, systemic diseases [9]
Treatment	Surgical drainage and broad-spectrum intravenous antibiotics
Prognosis	Overall mortality: 1%, mortality, with mediastinitis present: 25% [20].
Findings on imaging	Rim enhancing fluid collection with oval or rounded configuration, symmetrically and bilaterally involving retropharyngeal space and causing mass effect.

Table 1: Summary table of retropharyngeal abscess.

Differential Diagnosis	Contrast enhanced CT features	MRI features (Same imaging features as those listed under CT, with additional features below)
Retropharyngeal Abscess	• Symmetrical and bilateral involvement of retropharyngeal space • Rim enhancement • Oval or rounded shape • Moderate-to-severe mass effect	• T1WI: Hypointense lesion • T2WI: Hyperintense lesion with adjacent soft tissue edema. • DWI: Possible diffusion restriction in the areas of purulent fluid. • T1WI with contrast: Rim enhancement
Suppurative Retropharyngeal Node	• Unilateral involvement of the retropharyngeal space • Rim enhancement • Round or ovoid shape • Variable mass effect depending on the size	Same MRI features as those listed above for retropharyngeal abscess. Distinguished by unilateral involvement of the retropharyngeal space
Retropharyngeal Edema	• Bilateral, symmetrical involvement of the retropharyngeal space • No rim enhancement • Only mild mass effect • Commonly accompanied by evidence of adjacent infection, IVJ thrombosis or longus colli calcific tendinitis	• T1WI: Enlarged hypointense retropharyngeal space • T2WI: Hyperintense lesion with adjacent soft tissue edema. • DWI: No diffusion restriction • T1WI with contrast: No enhancement Additional findings if due to longus colli tendinitis: • All sequences: Globular low signal intensity calcifications along the longus colli muscles • T1WI with contrast: Enhancing adjacent soft tissues

Table 2: Differential diagnoses table for retropharyngeal abscess.

ABBREVIATIONS

CT = Computerized Tomography
DWI = Diffusion Weighted Imaging
IJV = Internal Jugular Vein
MRI = Magnetic Resonance Imaging
T1WI = T1 Weighted Imaging
T2WI = T2 Weighted Imaging

KEYWORDS

Case Report; CT; Deep neck spaces; Esophageal fistula; Retropharyngeal abscess

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