

CASE STUDY

Spontaneous laryngeal abscess causing dysphagia

Absceso espontáneo de laringe causante de disfagia

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Case report

A 32-year-old Turkish man presented with a history of dysphagia and odynophagia for six days with no dyspnea, dysphonia or hoarseness. He was diagnosed to have upper respiratory infection and had been empirically treated with amoxicillin-clavulanate for 5 days by family physician. Afterwards, he presented to our hospital in view of persistent symptoms despite antibiotic therapy. He denied any history of trauma, surgery, foreign body, tuberculous or medical illness. He had been a moderate smoker for 10 years.

On physical examination, his oral and nasal cavities were normal. There were no palpable mass on his neck. Laryngoscopic examination revealed significant edema and erythema of the arytenoids and interarytenoid space. There was a spontaneously drained purulent discharge from the right arytenoid. The true vocal folds and anterior part of airway was normal (Fig. 1). Computed tomography (CT) of the larynx showed soft-tissue inflammation and edema at C4-5-6 and a 24 mm × 10 mm rim-enhancing lesion in the posterior larynx (Fig. 2A and B). Blood counts revealed a WBC count of 16,700 with 85% neutrophils and ESR of 95 mm. His human immunodeficiency virus (HIV) test was negative. Metabolic panel and liver function tests were unremarkable.



Figure 1 Flexible laryngoscopic view of enlarged edematous, erythematous, asymmetric arytenoids and interarytenoid space with spontaneously drained purulent discharge from the right arytenoid.

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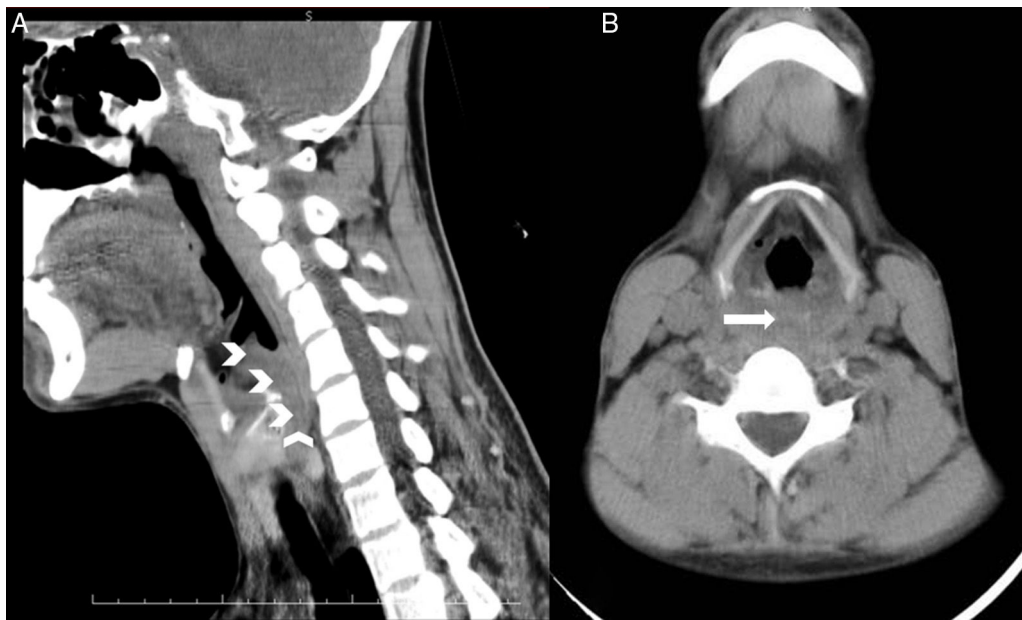


Figure 2 (A) Sagittal CT image showing a posterior transglottic laryngeal abscess (arrowheads). (B) Axial CT image showing abscess (arrow).

Having been clinically diagnosed with a spontaneously drained laryngeal abscess, the patient was admitted to the hospital. Intravenous (IV) ampicillin sulbactam and intravenous steroid were administered. One day later a follow-up endoscopic examination was obtained, showing volume reduction and still spontaneous drainage of the abscess. Repeat laryngoscopy showed complete alleviation of the abscess and edema on day 6. At five months of follow-up, he showed no evidence of recurrence, and he was doing well.

Discussion

Spontaneous laryngeal abscesses are rare and, if present, commonly occur in the epiglottis or pre-epiglottic space.¹ A laryngeal abscess carries a serious risk of airway obstruction. Laryngeal abscesses can occur spontaneously but may also occur as a complication of neck trauma, tumors, laryngeal surgeries, nasogastric intubation, radiotherapy, foreign bodies, and as a result of immunosuppression.^{1,2} In addition to these etiologies, laryngeal cysts can become infected and initiate larynx abscess formation.³

Spontaneous laryngeal abscesses can arise if a catarrhal inflammation occurs. An acute submucous laryngitis can cause laryngeal perichondritis and abscess formation in that area.²

In the present case, a patient presented with a transglottic laryngeal abscess that spontaneously drained from the right arytenoid area. The posterior larynx region is an unusual region for laryngeal abscesses and the patient has no history of trauma, surgery, diabetes mellitus or immunosuppression. There were no signs of cystic formation, tumors, or foreign bodies as well.

Patients with a laryngeal abscess could demonstrate a variety of symptoms. The literature notes laryngeal abscesses causing dysphonia, stridor, acute airway

obstruction, sore throat, vocal cord paralysis, dysphagia, odynophagia, and sudden death.^{4,5}

In laryngeal abscess the most common isolated organisms are *Haemophilus influenzae*, methicillin-resistant *Staphylococcus aureus*, *Streptococcus pneumoniae*, *Meningococci*, *Haemophilus parainfluenza*, *Klebsella pneumoniae*, *Nocardia species* and *Candida albicans*.^{1,4,6}

Laryngeal abscesses require a quick diagnosis and treatment because they can rapidly become life-threatening. The diagnosis of a laryngeal abscess is generally made on the basis of the patient's history and by an endoscopic examination with a flexible laryngoscope.⁷ CT imaging can be helpful for confirming the diagnosis and for determining the extent of the condition.⁸

Treatment decisions should be dictated by the severity of the obstruction of the patient's airway. Laryngeal abscess treatments include airway management, surgical drainage of the abscess and IV treatment with antibiotics and steroids. Airway obstruction can require the immediate establishment of an airway-either by intubation or acute surgical intervention (e.g. a tracheostomy or cricothyrotomy). Surgically draining the abscess is recommended.⁷ In some cases, laryngeal abscesses may be treated solely via IV antibiotics and steroids without the use of surgery.⁹ In the present case, surgical drainage may not be necessary, given the spontaneously occurring drainage.

Conclusion

The spontaneous presentation of a posterior laryngeal abscess is extremely rare. The authors present a case of spontaneous posterior transglottic abscess causing dysphagia and odynophagia. The diagnosis of a posterior laryngeal abscess should be considered in patients presenting with dysphagia and odynophagia. Therefore, a laryngoscopy should be performed for patients with a sudden onset of dysphagia.

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None declared.

Conflict of interest

None declared.

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