

CASE REPORT

Laryngeal Carcinoma Masquerading as Tubercular Deep Neck Abscess

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ABSTRACT

Aim: A rare case presentation with important clinical lesson.

Background: Laryngeal carcinoma and tuberculosis have common clinical features that can mislead the management. Deep neck abscess is rare in laryngeal cancer, while it is common in tuberculosis.

Case description: A 54-year-old male presented with painful swelling in the neck with odynophagia and fever for last 20 days. Clinical examination and radiological investigations favored laryngeal tuberculosis; however, laryngoscopic biopsy found squamous cell carcinoma.

Conclusion: All cases of deep neck abscess with laryngeal involvement should be subjected for direct laryngoscopic examination and biopsy to rule out any hidden malignancy.

Keywords: Abscess, Cancer, Larynx, Neck, Tuberculosis.

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BACKGROUND

Carcinoma larynx is common head and neck tumor presenting in elderly smoker with hoarseness, odynophagia, and neck node enlargement. Laryngoscopy examination and biopsy confirm the diagnosis. About 10% of extrapulmonary tuberculosis manifests in head and neck region where lymph nodes are the commonest, and larynx is the second most common site.¹⁻³ Both laryngeal cancer and tuberculosis have overlapping clinical features that can mislead the clinician. It can result in mismanagement and requires a thorough, careful evaluation to diagnose the underlying tumor. In this case report, we highlight a similar clinical case where laryngeal cancer masquerade as tuberculosis.

CASE DESCRIPTION

A 54-year-old male patient presented with a painful swelling in front of the neck and dysphagia for the last 10 days. This swelling was associated with high-grade fever and loss of appetite. Last year, the patient underwent direct laryngoscopy for hoarseness which was found to be chronic laryngitis on histopathology. The patient also received antitubercular treatment for pulmonary tuberculosis 2 years back. There was no other contributory history.

Physical examination revealed edematous and hyperemic skin with a soft, fluctuant but tender swelling measuring 6 × 4 cm in front of the neck at the level of the thyroid cartilage on the left side. This swelling was not separable from thyroid cartilage and sternocleidomastoid muscle. Rest of the neck examination was insignificant. The flexible fiberoptic laryngoscopy examination found hyperemic and edematous left vestibular fold with a pustule formation in the middle part of vestibular folds. The left vocal cord was not visible, while the contralateral was pale and edematous. Laryngeal movements and hypopharynx were found normal. A probable diagnosis of a deep neck abscess was made, and the patient was investigated to clinch the final diagnosis.

Ultrasound neck found a hypoechoic area of 2.5 × 1.5 cm in left side of neck at level of the thyroid cartilage with multiple matted

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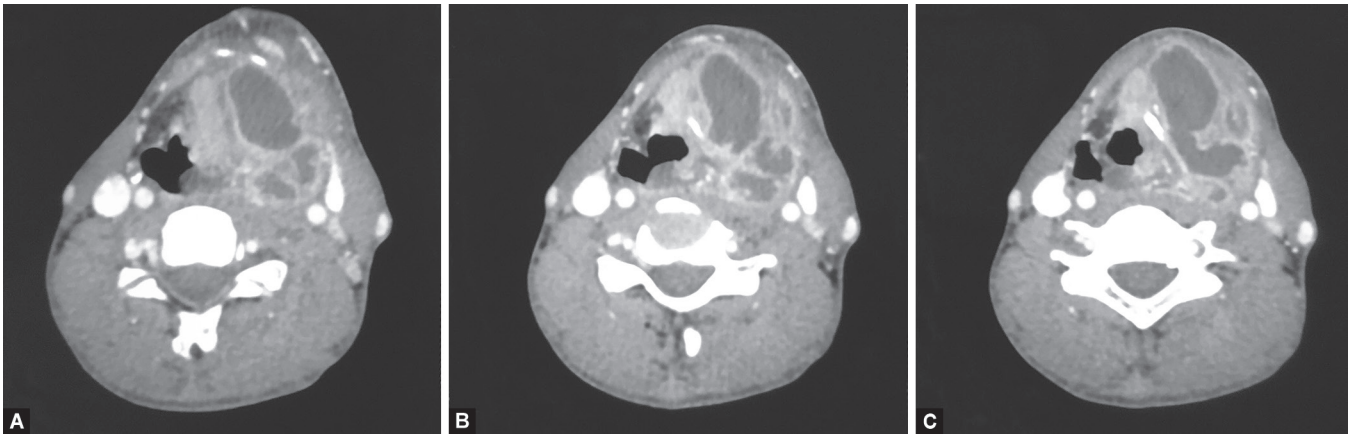
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lymph nodes with necrosis suggestive of abscess. Hematological and biochemical investigations were found normal.

A computed tomography of the neck (Figs 1 and 2) revealed peripheral enhancing multiloculated collection in the left paraglottic region, prelaryngeal, pre-epiglottic, and parapharyngeal space. There was heterogeneously enhancing thickening of left aryepiglottic fold, anterior commissure, and left vestibular folds with rarefaction of thyroid cartilage lamina. The radiological investigations were favoring laryngeal infection and deep neck abscess with possibility of tuberculosis.

The patient was subjected to direct laryngoscopy examination (Fig. 3) and abscess drainage. About 10 mL of thick purulent pus was drained with wide bore cannula keeping in view the possibility of tubercular abscess and sent for the microbiological examination (Gram staining, acid fast bacilli staining, CBNAAT, and bacterial culture). Direct laryngoscopy examination found edematous left vestibular folds with edematous anterior commissure and vocal cords. Hypopharynx was normal. A punch biopsy was taken which came out to be a moderately squamous cell carcinoma. Microbiological examination of the pus did not find any microorganism.



Figs 1A to C: CT scan showing large multiloculated abscess in the larynx and neck



Fig. 2: CT scan in sagittal section showing large multiloculated abscess in the pre-epiglottic and supraglottic space

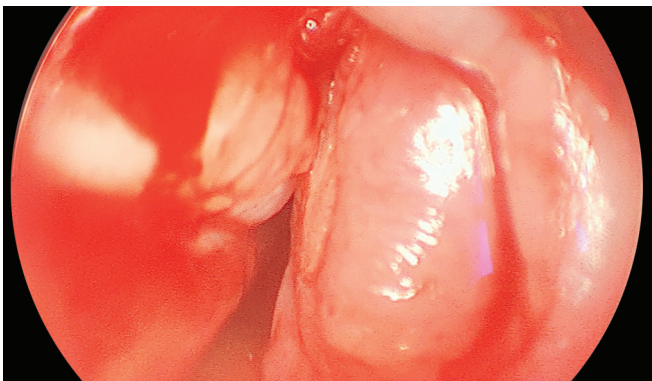


Fig. 3: Direct laryngoscopic view showing edematous vestibular folds and hypertrophic vocal cords

A final diagnosis of laryngeal squamous cell cancer with neck nodal metastasis with neck abscess was made. The patient received parenteral antibiotics with anti-inflammatory

drugs leading to improvement in the clinical features. Further investigations did not find any distant metastasis. The patient refused the surgical treatment and opted for chemoradiation.

DISCUSSION

The presence of infection with malignancy delays diagnosis and further management. Head neck cancers presenting as deep neck abscess are quite uncommon with an incidence of 1–5%.^{4–6} Primary laryngeal tuberculosis is also uncommon and usually a manifestation of pulmonary tuberculosis.^{7,8}

The laryngeal tuberculosis mimics carcinoma larynx due to similar clinical features, such as hoarseness, odynophagia, and ulceroproliferative lesion. Epiglottis is the commonest presentation of the tubercular laryngitis which appears edematous and turban-shaped, while interarytenoid region shows pale granulations and edema. Ventricular folds and vocal cords also get involved in the advance stage rarely. The present case also had similar clinical features, while previous history of pulmonary tuberculosis and multiple matted and necrotic lymph nodes favored laryngeal tuberculosis over cancer. The metastatic lymph nodes are round, hard, and discrete and show central necrosis similar to tubercular nodes. Large abscess formation in the metastatic lymph is unusual and can mislead the management similar to present case. A high level of clinical suspicion can help to make the diagnosis early. Agarwal et al.⁸ have presented a case series on laryngeal tuberculosis in which laryngeal cancer was the first diagnostic possibility in 7 out of 15 cases.

Laryngoceles are known to hide a cancer within; however, its presentation as deep neck abscess or lymphadenopathy is also rare. Progressive, nontender neck swelling that reduces with crepitus or gurgling sound on digital pressure is the main clinical features that differentiate them from other neck swelling. Association of pain and erythema indicate infection in the laryngocele and requires urgent evaluation. A laryngoscopy examination will reveal fullness in ventricular folds, while vocal cords and glottis will be normal. A CT scan will find air, mucus, or pus-filled cavity involving ventricle and saccule and may be extending extra-laryngeal toward thyrohyoid membrane. Treatment involves drainage of the pus and surgical excision of the laryngocele.

CONCLUSION

A high level of clinical suspicion should be kept in laryngeal disease especially with neck abscess as a hidden cancer can be overlooked. All investigations should be clinically correlated, and diagnostic laryngoscopy should definitely be sought to clinch a final diagnosis.

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