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Case Report

Cervical Scrofula Mimicking Thyroid Malignancy: A Rare Presentation with Pretracheal Lymph Node Involvement in an Adult Female

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Abstract

Cervical lymphadenitis is the most common extrapulmonary manifestation of TB. Here we report a rare case of cervical scrofula (TB lymphadenitis) involving the pretracheal lymph node. It is essential to undergo a proper radiological assessment to differentiate between thyroid nodule and lymph node pathology and thus avoiding surgical intervention.

Keywords: scrofula; pretracheal lymph node; extrapulmonary tuberculosis; tb lymphadenitis

Introduction

Pretracheal tubercular abscess is a rare presentation of extra pulmonary tuberculosis.[1] It usually presents in posterior triangle group of lymph nodes.[2]

Case Presentation

A 33 old female patient presented to our otolaryngology outpatient department complaining of mild pain and a swelling over the anterior aspect of her neck that had been present for a month. She also gave history of rupture of swelling. Patient had no complaints of evening rise of temperature, cough, dyspnoea, dysphagia, change in voice and foreign body sensation in the throat. She had similar complaints of left sided neck swelling 2 months back which subsided with antibiotics. Not a known case of diabetes, hypertension, coronary artery disease, cerebrovascular accidents, tuberculosis (TB), asthma, thyroid disorders, seizures, genetic disorders and no past surgical interventions.

Clinical examination of the neck, revealed an oval swelling of size 1x2cm, involving the anterior part of the neck, 1cm above the suprasternal notch. A discharging sinus was visualised over the swelling. Skin over the swelling showed signs of inflammation and the swelling did not move with protrusion of the tongue or on deglutition. Vitals and all routine investigations were normal. ESR was 114mm after 1st hour. Thyroid profile was normal. On further evaluation, ultrasonography (USG) of the neck showed TIRADS 4 isoechoic soild lesion involving the right lobe of thyroid indicating suspicous of malignancy. USG also revealed multiple bilateral level IV, VI, supraclavicular nodes with loss of fatty hilum with the largest measuring of 1cm x 0.8cm. Discontinuity was noted in the level VI lymph node with evidence of 1.6cm x 1cm collection in subcutaneous plane on anterior aspect of neck showing communication in above mentioned lymph node suggesting a ruptured cyst. As all these features were favouring towards thyroid malignancy, further investigations were done. A USG guided fine needle aspiration cytology (FNAC) of the swelling in neck was suggestive of benign follicular nodule- BETHESDA Grade-II. As all these investigations were still inconclusive to reach a confirmatory diagnosis Magnetic resonance imaging (MRI) of the neck with gadolinium was done. On MRI, T2 weighted STIR sequence revealed aa ill defined peripherally enhancing hyperintense collection in the intermuscular and intramuscular planes just adjacent to the insertion of right sternal head and was extending into the cutaneous plane with a skin breach in the suprasternal region. MRI T2 weighted STIR also showed multiple hyperintense small peripherally enhancing collections with adjacent marrow edema within the manubrium, body of sternum, right

transverse process of C7 and right supraclavicular lymph nodes. There were cortical breach noted in the anterior aspect of the manubrium and right transverse process of C7. Altered signal intensity was noted in the vertebral bodies of D2, D3 with anterior cortical breaks with a peripherally enhancing T2-STIR hyperintense collection measuring 3.3×1.7×1.9cm in prevertebral space (Figure 1). All these features were suggestive of infective spondylitis most probably of Koch's etiology. To confirm the diagnosis, discharge from the swelling was sent for acid fast bacilli, which turned out to be positive. Further CBNAAT was also positive for Mycobacterium Tuberculosis and was sensitive for rifampicin. Patient was started on ATT.

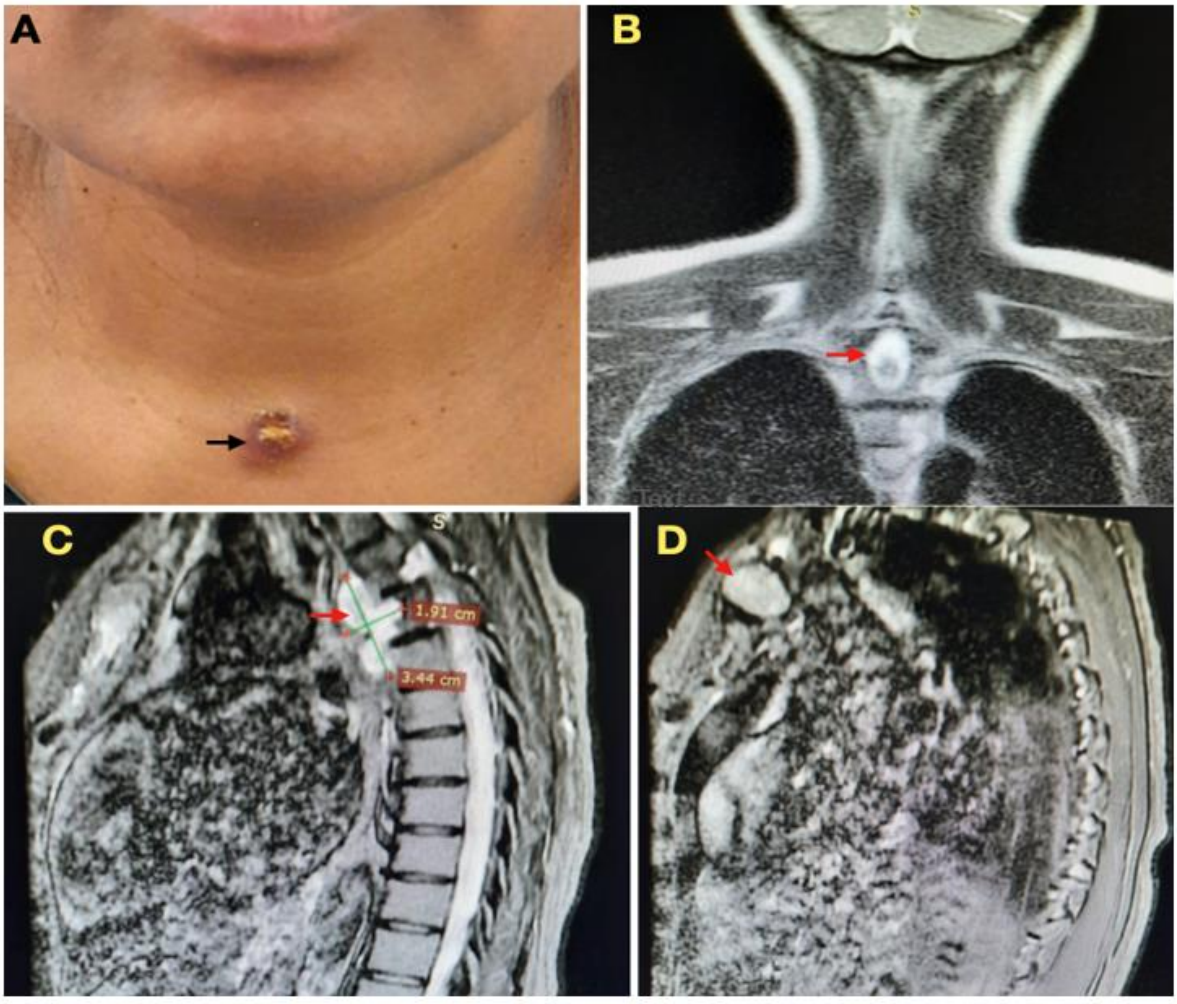

Figure 1: (A). Clinical image showing swelling infront of the neck with a discharging sinus (black arrow). **(B,C,D).** MRI neck, T2 weighted STIR squence (**B**). Coronal view, (**C,D**). Saggital view showing hyperintense collection (red arrow) in the neck (**B,D**) and in the pre vertebral space (**C**).

Discussion

Tuberculosis is still the most prevailing disease in countries like India contributing to 22.7% of the global burden. Lymph node involvement is the most common presentation of extrapulmonary disease. Cervical group (60–90%) of lymph nodes are most commonly involved.[3] Reported literature has shown that TB lymphadenitis is most commonly involves the posterior triangle group of lymph nodes.[2] Posterior triangle nodes accounts for 51% [3] followed by upper deep cervical and submandibular nodes. Pretracheal tubercular abscess is a very rare presentation of extrapulmonary tuberculosis accounting for less than 1%.[1] Anterior group of nodes is very rare accounting for <1%.[2] TB of the lymph nodes presents at various stages such as Lymphadenitis, Periadenitis, Cold abscess, Collar stud abscess and a Sinus.

Most of them are seen to present in the stage of lymphadenitis[4,5] as single or multiple painless swellings. Most of the times it spreads through the primary focus in the lungs, tonsil, adenoids or via contiguous spread from the mediastinal, peri bronchial nodes or adjacent group of nodes. Presentation of the anterior group of lymph nodes classically mimics a thyroid nodule or thyroglossal cyst due to the location of swelling and signs associated with it.[6] Swellings anatomically located in the area of anterior group of lymph nodes should be dealt with high degree of suspicion for tubercular etiology especially in TB endemic areas (WHO, 2014).[3] Radiological findings of hyperintense collections on T2W STIR, with proven positivity for Acid Fast Bacilli on AFB stain and CBNAAT confirmed a presentation of tubercular abscess. With great advances in imaging and laboratory investigations the patient was confirmed with a diagnosis of Extrapulmonary Tuberculosis and was started on a course of anti tuberculous treatment Category 1 for 6 months as per RNTCP-Guidelines for TB control in India. Patient was also counselled and asked to watch for complications of anti tuberculous drugs.

Conclusion

A proper radiological assessment is of utmost importance to differentiate between thyroid nodule and lymph node pathology. A possibility of extrapulmonary lymphadenitis and should be considered as a differential diagnosis in all cases of TB lymphadenitis. Adequate evaluation will avoid

major surgical intervention in cases for an infectious pathology like tuberculosis.

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References

1. World Health Organization. (2013). Global tuberculosis report 2013. World Health Organization.
2. Baskota, D. K., Prasad, R., Kumar Sinha, B., & Amatya, R. C. (2004). Distribution of lymph nodes in the neck in cases of tuberculous cervical lymphadenitis. Acta oto-laryngologica, 124(9): 1095-1098.
3. Maharjan, M., Hirachan, S., Kafle, P. K., Bista, M., Shrestha, S., Toran, K. C., & Lakhey, M. (2009). Incidence of tuberculosis in enlarged neck nodes, our experience. Kathmandu University medical journal (KUMJ), 7(25):54-58.
4. Sharma, S. K., & Mohan, A. (2004). Extrapulmonary tuberculosis. The Indian journal of medical research, 120(4): 316-353.
5. Prasad, K. C., Sreedharan, S., Chakravarthy, Y., & Prasad, S. C. (2007). Tuberculosis in the head and neck: experience in India. The Journal of laryngology and otology, 121(10):979-985.
6. Das, S., Das, D., Bhuyan, U. T., & Saikia, N. (2016). Head and Neck Tuberculosis: Scenario in a Tertiary Care Hospital of North Eastern India. Journal of clinical and diagnostic research : JCDR, 10(1): MC04-MC7.

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