CASE REPORT

PRIMARY NASOPHARYNGEAL TUBERCULOSIS: A RARE CASE PRESENTATION

Tashnin Rahman[1], Bhargaw Ilapakurty[2], Kaberi Kakati[3], Ashok Kumar Das[1], Amal Chandra Kataki[4]

Author's Affiliations: 1Associate Professor; [2]Senior Resident; [3]Fellow; Department of Head and Neck Services; [4]Director, Dr.B Borooah Cancer Institute, Guwahati, India
Correspondence: Dr.Bhargaw Ilapakurty Email: bhargaw_ilapakurty@yahoo.co.in

ABSTRACT

Primary nasopharyngeal tuberculosis (TB) is extremely rare. However, in endemic areas, isolated nasopharyngeal TB may present mimicking a malignancy. We report here a case of 31-year old male who presented with multiple lymphadenopathis in the neck. Furthermore, North Eastern part of the country has a high incidence of nasopharyngeal cancers. The diagnosis of primary nasopharyngeal TB was confirmed by histopathology of the nasopharyngeal lesion and negative finding on chest imaging.

Keywords: Malignancy, nasopharynx, primary, tuberculosis

INTRODUCTION

Tuberculosis [TB] is one of the most common granulomatous infectious diseases in India. It can affect any organ in the body, although it has high predilection for pulmonary infection but otorhinolaryngological TB constitutes less than 5% of all cases of extra-pulmonary TB.[1]The North East (NE) part of India is an endemic region of nasopharyngeal cancer.[2] TB of nasopharynx may be primary variant without pulmonary involvement. Description of nasopharyngeal tuberculosis is very limited in the literature.

CASE REPORT

A 31-year old male patient presented with the chief complaint of multiple neck swellings on left side ofthe neckof 2 months duration. There were no histories of nasal bleed, nasal obstruction, snoring, repeated upper respitatory tract infections or decreased hearing. His preliminary Ear Nose and Throat examination showed a mass in the roof of nasopharynx on posterior rhinoscopic examination. On the neck there weretwo nodes in Level-II and Level V. The nodes were firm, mobile, non tender and the maximum size of the lymph node measured 3cm. Further examination by nasal endoscopy showed a smooth surfaced congested growth in the superior wall of nasopharynx, which was compressing the opening of the torus tubaris on right side and it bled easily on touch.His contrast enhanced computer tomography (CT) of nasopharynx and neck showed a growth in the nasopharynx with multiple neck nodes (Figure 1). A biopsy was taken from the nasopharyngeal growth and sent for histopathological examination.

Figure 1: CT scan shows asymmetric soft tissue thickening involving the posterolateral aspects with effacement of fossa of Rosenmuller with bilateral multiple partially necrotic nodes

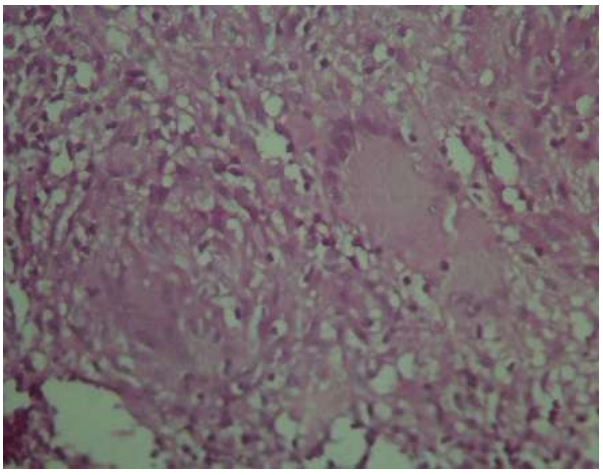

Figure 2: Photograph with H&E stain (40X) showed fragments of respiratory epithelium with underlying lymphoid tissue showing epitheloid granuloma suspecting Koch's

It showed features of granulomatous disease suggestive of tuberculosis (Figure 2). Fine needle aspiration cytology (FNAC) was inconclusive. Wedge biopsy of the node in Level V was performed which showed features of necrotizing, granulomatous lymphedinitits suggestive of Koch's lymphadenopathy.

Imagining for the primary locus and other loci were done. High resolution CT of the thorax showed no pulmonary lesion and ultrasonography abdomen was normal. The diagnosis of primary nasopharyngeal TB with tubercular lymphadenopathy was confirmed. The patient was further referred for the treatment of TB.

DISCUSSION

In the NE India nasopharyngeal cancer and TB are not so uncommon. Isolated nasopharyngeal tuberculosis is a very uncommon presentation even in very tuberculosis prevalent area like India. Primary nasopharyngeal involvement probably occurs due to reactivation of dormant acid fast bacilli in the adenoids or due to direct mucosal infection after inhalation of the bacilli,[3]or contact with the lung secretions the infection spreads to the nasopharynx. Nasopharyngeal tuberculosis appears in 1.9% of patients with pulmonary tuberculosis. However, primary nasopharyngeal tuberculosis without the lung involvement is very rare. According to Rohwedder et al and only 0.1% nasopharyngeal involvement were detected in primary active pulmonary tuberculosis patients.[4] Clinical presentation and imaging studies also present a challenge for the clinician and otolaryngologists to diagnose a isolated nasopharyngeal TB.[5]Coming to the diagnostic part the history and clinical presentation was highly suggestive of nasopharyngeal carcinoma, and the clinical picture resembles the classical case of nasopharyngeal carcinoma. CT scan commonly shows either diffuse mucosal thickening or a moderately enhancing polypoidal mass in the roof of the nasopharynx, which may be ulcerated.[6] MRI commonly shows a mass or diffuse mucosal thickening of intermediate signal intensity on T1W and T2W sequences, with moderate contrast enhancement on T1W images.[7]Our CT scan shows the mass in the posterolateral wall with effacement of the fossa of Rosenmuller which was in favour of nasopharyngeal carcinoma, but the distinguishing features were, no extension of the growth in to adjacent structures, no contrast enhancement andno bony decalcifications of skull base.The other diagnostic difficulty is the similar histopathological for both the nasopharyngeal carcinoma and primary tuberculosis of nasopharynx.[5] In our case the typical features of TB like epithelial granuloma was present which was diagnostic. In addition, to rule out any coexisting malignancy like lymphoma, we had done biopsy from the neck node.

CONCLUSION

In endemic areas high degree of suspicion for Koch's in nasopharyngeal mass should be raised despite features that may suggest malignancy. Primary nasopharyngeal tuberculosis is extremely rare and it may mimic a malignancy. Complete clinical, radiological and histopathological examinations are required to confirm the diagnosis of TB instead of a malignancy.

REFERENCES

1. Sharma SK,Mohan A. Extrapulmonary tuberculosis. Indian J Med Res 2004;120:316-53
2. Kataki AC, Simons MJ, Das AK, Sharma K, Mehra NK. Nasopharyngeal carcinoma in the Northeastern states of India. Chin J Cancer 2011;30:106-13.
3. Sithinamsuwan P, Sakulsaengprapha A, Chinvarun Y. Nasopharyngeal tuberculosis: A case report presenting with diplopia. J Med Assoc Thai2005;88:1442–6.
4. Rohwedder JJ. Upper respiratory tract tuberculosis: Sixteen cases in a general hospital. Ann Intern Med 1974;80:708-13.
5. King AD, Ahujaa AT, Tseb GMK, van Hasseltc ACA,Chanb ABW. MR Imaging features of nasopharyngeal tuberculosis: Report of three cases and literature review. AJNR 2003 24:279-82.
6. Chaua BL Tan H, Yang ET. Tuberculosis of nasopharynx following radiotheraphy. Clin Oncol.1998;10:59–61.
7. King AD, Ahuja AT, Gary MK, Van Hasselt CA, Chan AB. MR imaging features of nasopharyngeal tuberculosis: Report of three cases and literature review. Am J Neuroradiol. 2003;24:279–82.