

Unique case series of tubercular neck abscess at a primary care centre in the Eastern part of Nepal

Pradeep Kumar Pyakurel 

AMDA- Hospital, Damak Nepal

ABSTRACT

Cervical tubercular lymphadenopathy (CTL) is a common extra-Pulmonary manifestation of tuberculosis. CTL can masquerade many other diseases. A high index of suspicion must be maintained in any cases presenting with neck swelling especially in TB endemic region like Nepal. Here we present a varied presentation of CTL at a primary care level community hospital.

Keywords: Abscess, lymphadenopathy, tuberculosis

*Correspondence:

Dr. Pradeep Kumar Pyakurel
MS otolaryngology and head and neck surgery
AMDA- Hospital, Damak Nepal
Email: pradeep.pokhrel10@gmail.com

Submitted: December 5, 2020

Accepted: May 12, 2020

To cite: Pyakurel PK. Unique case series of tubercular neck abscess at a primary care centre in the Eastern part of Nepal. JGMC Nepal. 2021;14(1):75-7.
DOI: 10.3126/jgmcn.v14i1.32715

INTRODUCTION

Tuberculosis is still a major health burden in developing countries. Cervical tuberculous lymphadenitis (CTL) is the most frequent extra-pulmonary manifestation of tuberculosis. Clinically it presents as a unilateral, slow-growing mass over weeks to months. In the advanced stage, nodes may increase in size, undergo necrosis, and lead to abscess formation. About five to 20% develop neck abscess and 10% develop a fistula.¹

CTL can masquerade many other cervical pathologies including reactive lymphadenopathy, Hodgkin's and non-Hodgkin's lymphoma, Metastatic lymph node, infected cysts, sarcoidosis. Therefore, a meticulous history and investigation is a necessity to make the correct diagnosis. Positive Tuberculin test, raised ESR, CRP level, ultrasonography (USG) are auxiliary tests for the diagnosis. Fine needle aspiration cytology (FNAC) a reliable less invasive, cheap, safe, outdoor diagnostic procedure to establish CTL. Histologic examinations are complementary and are required during non-conclusive FNAC. New diagnostic tests such as DNA hybridization or PCR produce more accurate and rapid diagnosis but are not readily available in developing countries.²

Tubercular lymphadenopathy is principally a medical disease and treated by anti-tubercular therapy (ATT). For tubercular abscess, aspiration along with medical treatment has a good outcome. We report four cases of tubercular cervical lymphadenopathy with abscess. Neck swellings are frequently encountered at primary care level community hospital. With high suspicion of disease, examinations and investigations we can diagnose tubercular neck disease and initiate treatment without any delays. This will also enable us to locate TB hotspots in this region. Written informed consent was obtained from the patients for the publication of this manuscript and accompanying images.

Case 1

67 years old, female presented to the ENT OPD with a history of swelling and pain in the left upper cervical region for two months. The swelling was growing in size and was associated with pain. (Figure 1) She had a past history of pulmonary tuberculosis. Examination revealed a large conglomerate mass. Ultrasonography reported heterogeneous mass of abscess medial to sternocleidomastoid. Aspiration was unyielding. A nick was given, and pus drained. HPE report demonstrated caseous necrosis, giant cell granuloma, epithelioid cells, and lymphocytosis suggestive of Tuberculosis. After 3 weeks of treatment with ATT the patient did not improve. There was overwhelming granulation at the wound site. The patient was referred to a tertiary center.

Case 2

A 37 years old male reported with complaints of non-painful, slowly increasing swelling in the anterior neck for the past three week. On examination there was firm solitary, non-tender node in the suprasternal region.(Figure 2) USG suggested lymphadenopathy. He was prescribed a course of Amoxiclav. The swelling did not resolve the follow-up.



Figure 1: An elderly woman with massive cervical lymphadenopathy with overwhelming granulations.

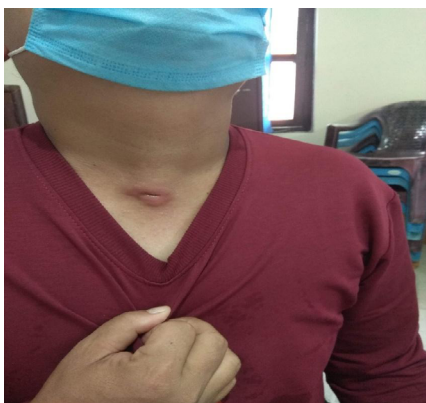


Figure 2: suprasternal tubercular lymphadenopathy post drainage status following up to ENT clinic

The swelling was fluctuant on palpation. USG confirmed abscess. Incision and drainage was done. Granulation tissue was observed intraoperatively and biopsy was sent. Histopathology was suggestive of tuberculous abscess. The patient was started on ATT. On follow-up two weeks later he reported improvement although the wound not adequately healing on examination. The patient continued on ATT.

Case 3

33 years old female presented to ENT OPD with swelling in the right submandibular for three weeks.(Figure 3) She did not have other complaints and no other significant past history. This was mimicking the submandibular sialadenitis. She had taken a course of antibiotics which did not help her. On examinations the swelling was firm and warm. USG suggested necrotic lymph nodes with loss of fatty hilum. FNAC suggested granulomatous lymphadenitis of tubercular origin. The patient improved significantly after starting on ATT.



Figure 3: swelling in right submandibular region mimicking submandibular sialadenitis

Case 4

A 36 years old male, army by profession came to ENT OPD with multiple swellings in his neck for two weeks. (Figure 4) He had no other complaints and no other past history.

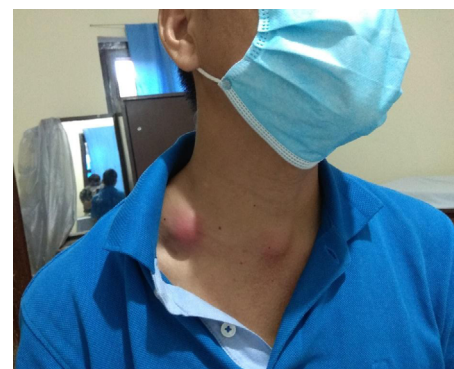


Figure 4: Young man presenting with multiple erythematous swelling involving multiple neck nodes.

Examination showed erythematous swellings in the suprasternal region and in the right posterior triangle at the supraclavicular area. The Montoux test was positive. Cytologic features were suggestive of tubercular abscess. Patient was started on ATT. The abscess was aspirated repeatedly for five days. Improvement was noted after two weeks.

DISCUSSION

Despite a great advance in the medical field, Tuberculosis still remains a major cause of illness and death worldwide. The WHO regions of South-East Asia and Africa accounted for nearly 70% of overall global TB. Although total case numbers were higher in South-East Asia, overall incidence was similar in both regions (226 per 100,000 [South-East Asia], 237 [Africa]).³ The National Tuberculosis Prevalence Survey (TBPS) 2018-19 in collaboration with World Health Organization (WHO) found 117,000 people are living with TB in Nepal.⁴ Extra-Pulmonary TB occurs in 7-30% of all TB cases with lymphadenopathy accounting for about 17-43% of extra-Pulmonary cases. CTL is the most commonly affected site (60-90%).^{1,5} Most of the cases present as a non-tender, firm, small to moderate in size mass on the neck. The duration of CTL is typically one to two months and can vary from three weeks to eight months.⁵ Lymph node swelling is usually unilateral and can be present in 87% of cases. A study by Chaudhary et al.⁴ found that level V was most frequently involved. As in our series, case 1 uniquely involved multiple levels IIa/IIb, III, and V group of Lymph nodes, Case 2 involved level VI cervical lymph nodes. The presence of constitutional symptoms seems to vary greatly. A series of 100 patients by Patel and Metha observed weight loss in 77% and fever in 73%.⁵ Concomitant pulmonary tuberculosis is reported in 18%-42% of cases with CTL. FNAC in CTL elicits a well-formed epithelioid granuloma, Langhans giant cells, and the presence of caseous necrosis. These findings; highly suggestive of tubercular etiology; is very helpful in the diagnosis especially when the incidence of tuberculosis is high.⁶ During diagnostic dilemma then excisional biopsy is recommended.^{7,8} Category I ATT is the treatment of choice for new cases and Category II for default cases. Selected cases especially with large size or not cured with ATT may require surgical intervention.⁵ For cases of CTL presenting with abscess formation repeated Aspiration with ATT has a good outcome with fewer chances of sinus formation.⁸

CONCLUSION

TB is a systemic disease that may give rise to cervical lymphadenitis and even progress to abscess formation. As

in our case series the CTL presentations were entirely different to each other. Any mass or abscess in the neck region warrants a high index of suspicion especially in TB-endemic countries like Nepal. Most cases can be successfully cured with ATT.

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