

Prevalence of Tuberculosis in Cervical Lymphadenopathy at AVECINNA Medical College & Hospital Lahore

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ABSTRACT

Objective: To find out the prevalence of tuberculosis in cervical lymphadenopathy.

Study design: Descriptive study.

Place and duration: In surgical and ENT out patients department at AVECINNA medical college & hospital DHA Lahore from Jan. 2011 to Dec. 2012.

Material and methods: Patients above 10 yrs of age from both sexes were included in this study. After routine work up and FNAC in selective cases all the patients had lymph node biopsy either incision or excision for the confirmation of diagnosis.

Results: A total seventy patients presented in OPD with cervical lymph adenopathy were included. Predominantly females were involved. Sixty patients (85.75%) had tuberculous lymphadenopathy. In 7(10%) patients reactive hyperplasia found while two patients (2.85%) had lymphoma and only one patient (1.42%) had metastatic lesion from thyroid carcinoma. Constitutional symptoms and family history of TB was absent in most of the patients.

Conclusion: Tuberculosis was most common clinical condition which affects the cervical lymph nodes. Laboratory findings ESR xray and FNAC were inconclusive in majority of patients. Only the confirmatory tool for the disease was tissue biopsy and histopathology.

Keywords: Tuberculous lymph adenopathy, lymphoma reactive hyperplasia.

INTRODUCTION

There were nearly 9 million new cases and 2 million deaths from the tuberculosis worldwide every year¹. The incidence of mycobacterial lymphadenitis has increased in patients with the increase in the incidence of mycobacterial infection worldwide. Tuberculous lymphadenitis is seen in nearly 35% of extrapulmonary tuberculosis which constitute about 15 -20% of all cases of tuberculosis. In HIV positive patients extrapulmonary tuberculosis accounts for 53-62% cases of TB^{2,3}.

Cervical lymph nodes are the most common site of involvement and reported in 60% to 90% patients with or without involvement of other lymphoid tissue⁴. There is increased frequency of mycobacterial lymphadenitis in Asian population^{5,6,7}. Infection with HIV is associated with an increased frequency of both pulmonary and extrapulmonary tuberculous lymphadenitis^{8,9}. The mycobacterium tuberculosis should be employed for differential diagnosis of tuberculous lymphadenitis¹⁰. Hodgekin lymphoma, squamous cell ca metastasis from papillary thyroid cancer (PTC) can coexist in cervical lymph nodes¹¹.

RESULTS

A total of seventy patients were involved in the study. There were 55(78.75%) females and 15(21.43%) males. Most of the patients were between 11-30

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years. Tuberculous cervical lymphadenopathy was the most common histological diagnosis (85.75%). Majority of patients were otherwise healthy and constitutional symptoms were present in about 10% of the patients only. Posterior triangle of the neck was commonly involved in tuberculous lymphadenitis. Only four patients had cold abscess. Six patients out of sixty proven tuberculosis lymph nodes had cough and fever, and pulmonary tuberculosis with positive family history of T.B. Seven patients (10%) had reactive hyperplasia and two patients (2.85%) had lymphoma. Only one patient (1.42) above 60 years of age had papillary thyroid ca metastasis in cervical lymph nodes (Table 1).

Table 1: Frequency of diseases

Diseases in Patients	=n	%age
T.B cervical Lymphadenitis	60	85.75
Reactive hyperplasia	7	10
Lymphoma	2	2.85
Papillary thyroid Ca.	1	1.42

Table 2: Age distribution and prevalence of diseases

Diseases	11-30 Yrs	31-50 Yrs	>50 years
Lymphadenopathy	50(71.43%)	18(25.7%)	2(2.85%)
Tuberculosis	46(92%)	13(72.22%)	1
Reactive hyperplasia	4(8%)	3(16.66%)	0
Lymphoma	0	2(11.11%)	0
Papillary thyroid Ca.	0	0	1

All the cases included in this study had lymph node biopsy to confirm the diagnosis.

DISCUSSION

Tuberculosis is an important public health problem and it is commonest cause of infectious diseases affecting the lymphoid tissue of the body (12%) In a study conducted in Kathmandu, causes of cervical lymphadenopathy were tuberculous lymphadenitis (54%), reactive hyperplasia (33%) and metastatic lesion in lymph nodes (11.1%). FNAC was found to be highly effective (94%) in diagnosis. Lymph nodes in the posterior triangle of neck were mostly involved (13%). In this study tuberculosis was also the main cause of cervical lymphadenopathy but is relatively high as compared to study cited above.

Lymphadenitis is the most common clinical presentation of extrapulmonary tuberculosis. Tuberculous lymphadenitis can be local manifestation of the systemic disease. Tuberculous lymphadenitis most frequently involves the cervical lymph nodes followed in frequency by mediastinal, axillary, mesenteric, hepatic portal, perihepatic and inguinal lymph nodes^{14,15}.

In this study family history was present in 10% of the patients. Thus source of organisms must be looked for. In one study the commonest age group affected was 11 – 20 years and constitutional symptoms were not present in most of the patients. The upper deep jugular nodes were most commonly involved. Discharging sinus and abscess formation were uncommon. Chest lesions in radiography were evident in 10% of the patients¹⁶. But in this study four patients had cold abscess. Females were predominantly involved with tuberculosis in this study. Similarly females were reported in a study from India¹⁷.

A high index of suspicion is needed for the diagnosis of mycobacterial cervical lymphadenitis. A thorough history and physical examination, tuberculin test, staining for acid-fast bacilli, radiologic examination, and fine-needle aspiration cytology (FNAC) will help to arrive at an early diagnosis of mycobacterial lymphadenitis which will allow early institution of treatment before a final diagnosis can be made by biopsy and culture¹⁸.

CONCLUSION

Prevalence of tuberculosis in cervical lymphadenopathy was very high in this region of the city. Constitutional symptoms were absent in most of patients. Clinical examination, ESR and x-ray chest have limited role in diagnosis of tuberculous cervical lymphadenopathy. A high index of suspicion is needed for the diagnosis of mycobacterial cervical lymphadenitis confirmed by tissue biopsy of the lymph nodes.

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