

Frequency of tuberculosis in cervical lymphadenopathy: our experience

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Abstract:

Objective: To observe the frequency of tuberculosis in patients with cervical Lymphadenopathy.

Study design: Prospective descriptive study.

Setting& duration: At Hamdard University Hospital Karachi from January 2008 to January 2009.

Methodology: All Patients with cervical Lymphadenopathy were included who presented in outpatient department. Detailed history, clinical examination, Complete blood picture, Erythrocyte sedimentation rate (ESR), Mantoux test (MT) and X-ray chest were done in all patients .Diagnosis was confirmed either by Fine Needle Aspiration Cytology (FNAC), incisional or excisional biopsy . Data was collected on a pre-designed Performa.

Results: Sixty patients were included in study, female to male ratio was 1:0.7. Most common clinical presentation was multiple painless neck swellings (80%), others were abscess, discharging sinus, pyrexia & weight loss. Tuberculosis was confirmed in 42 patients (70%), squamous cell carcinoma in 02(3.33%), Lymphoproliferative disorders 03 (05%), Kikuchi disease o1 (1.66%) and Non-specific inflammation in 12 (20%) patients.

Conclusion: Tuberculosis is commonest cause of cervical Lymphadenopathy in our clinical practice.

Keywords: Tuberculosis, FNAC, Cervical Lymphadenopathy.

Introduction;

Cervical Lymphadenopathy is a common presentation in surgical practice and often it is an important clue to an underlying disease process or a specific clinical syndrome, both inflammatory or neoplastic^{1,2} Cervical Lymphadenopathy is usually defined as cervical lymph nodal tissue measuring more than 1 cm in diameter.³Cervical Lymphadenopathy is the most common site for tuberculous lymphadenitis.^{4,6}

In developing countries including Pakistan tuberculous lymphadenitis is commonest form of extra pulmonary tuberculosis seen in practice ⁴. In contrast, western world has a different pattern of manifestation with metastatic malignancy being most common pathology.⁵ In past few de-

acades there have been improvements in health care facilities and use of effective Antituberculous chemotherapy have caused a decline in frequency of tuberculosis mainly in developed and in few developing countries.⁷ Despite the decline of pulmonary tuberculosis in western world, incidence of tuberculous lymphadenitis has remained same.⁸

We conducted this study to observe the frequency of tuberculosis in patients who presented with cervical Lymphadenopathy.

Materials methods:

This was a prospective descriptive study conducted at Hamdard University Hospital Karachi from January 2008 to January 2009 and includ-

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ed patients who presented in outpatient department with cervical lymphadenopathy. Detailed history, Clinical examination, Complete blood picture, Erythrocyte sedimentation rate (ESR), Mantoux test (MT) and X ray chest were done in all patients. Ultrasound neck was done in selected patient. Diagnosis was confirmed either by FNAC, incisional and/or excisional biopsy.

All patients having primary focus other than tuberculosis on clinical examination were excluded from the study.

Data was collected on a predesigned performa.

Results:

A total of 60 patients were included in this study. There were 35 female and 25 males (female to male ratio of 1:0.7). Mean age of population was 32.9 years (range 14-70years).

Most common Clinical presentation was multiple painless neck swellings (80%), others were complicated form of tuberculosis, like Abscess & discharging sinuses were found in 19%of patients. Clinical presentations is shown in Table 1.

Table 1: Clinical Presentation

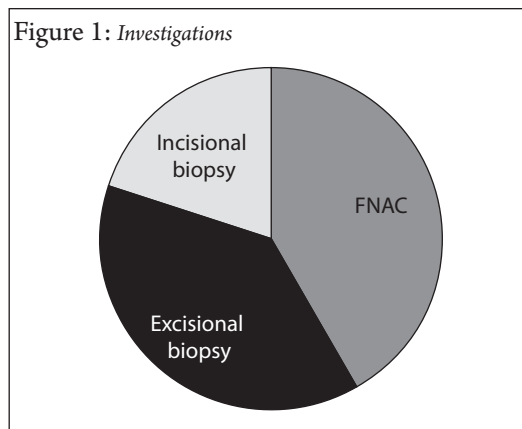
Clinical Presentation	Number of Patients	Percentage
Neck Swelling	48	80
Abscess	10	16.7
Discharging Sinus	2	3.33
Pyrexia	35	58.3
Weight loss	17	28.3

History of Pulmonary Koch's was present in 05 patients while history of contact was found in 08 patients.

On examination 19 patients had pallor. No other significant abnormality was detected on systemic examination.

Laboratory investigation confirmed anaemia in 11 patients with mean Hb of 11.04g/dl, ESR was raised more than 20mm in first hour in 54 patients while more than 100mm in first hour in 06 patient ,06 patients had features of Pulmonary Kochs on Chest X ray.

Figure 1 shows number of patients who underwent different investigations to confirm the diagnosis.FNAC was inconclusive in 8(13%) patients who were further investigated by excisional /incisional biopsy.



The presence of tuberculous infection was confirmed in 42 patients and other pathologies found are shown in Table 2.

Table 2: Different diagnosis confirmed on Cytology or Histopathology

Diseases	Number of Patients	Percentage
Tuberculosis	42	70
Squamous Cell Carcinoma	02	3.33
Lymphoproliferative disorders	03	05
Kikuchi disease	01	1.66
Nonspecific inflammation	12	20

All patients with confirmed diagnosis of tuberculosis were started on Antituberculous chemotherapy (ATT). 38 had complete resolution of symptoms, 1 patient was non compliant and came back after 6 months with recurrent abscess while 3 patients were lost to follow up.

Discussion

World is facing the resurgence of tuberculosis as human immunodeficiency syndrome is on the rise. In our country, unfortunately we have been unable to get rid of tuberculosis even before the era of HIV infection. It is an endemic problem in our part of the world and we are still seeing both pulmonary and extra pulmonary tuberculosis

quite frequently. According to WHO report in 2009, Pakistan ranks eighth among 22 high burden tuberculous countries in the world.⁹

Cervical lymphadenopathy is a manifestation of a spectrum of diseases ranging from benign to malignant.¹⁰ Peripheral lymphadenopathy especially cervical lymphadenopathy is a frequent form of extrapulmonary tuberculosis.^{11,12,13}

In our study 70% of patients had tuberculous infection diagnosed on the basis of either FNAC or excisional biopsy, this is consistent with other studies^{14,16} which reported an incidence of 69%. N Choudhury reported that all of the tuberculous patients they studied, 58% had cervical adenitis at presentation¹⁵. Another study showed an incidence of 36%, although tuberculosis had been the major cause of lymphadenopathy in their study as well but total incidence was lesser as compared to our study, this disparity might have been due to differences in patient selection and local referral pattern.¹⁰

FNAC is a safe alternative to Excision Biopsy and it should be recommended as first line and Excision Biopsy as second line investigation only if results of FNAC are negative.¹⁷ We followed this principle in our study and found that accuracy of FNAC was 77%.

Presentation of patients with cervical lymphadenitis can range from neck swellings, collar stud abscess to discharging sinus, solitary or multiple lymph node enlargement either matted or discrete.

Although with improved awareness and diagnostic facilities, the complicated forms of tuberculous lymphadenitis are comparatively becoming rarer. In our study, about 41% of our patients presented with neck swellings, 18.5% collar stud abscess while 3% had discharging sinus. Similar pattern is observed in others study.¹⁸⁻¹⁹ This is comparable with a regional study which reported that 71% of patients had neck swellings while 12.6% had an abscess and 2% had discharging sinus.¹⁰

All patients completed antituberculous treat-

ment, only one patient had recurrent abscess formation which was mainly due to non compliance.

Conclusion:

Tuberculosis is the commonest cause of cervical Lymphadenopathy in our clinical practice. Other less common causes of cervical lymphadenopathy are squamous cell carcinoma, non-specific inflammation and lympho-proliferative disorders.

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