

Frequency of Tuberculosis in Cervical Lymphadenopathy

*IMRAN SAEED, **SUHAIL ANJUM, ***MUHAMMAD AKHLAQ

ABSTRACT

Aim: To find the frequency of tuberculosis in cervical lymphadenopathy and patients characteristics.

Study design: Descriptive study

Place & Duration of Study: Surgical Unit, Ch. Rehmat Ali Memorial Hospital, Township, Lahore from Jan 2009 to Dec 2011. Most of the patients lived in the vicinity of the hospital.

Methodology: Patients with cervical lymphadenopathy above age of 15 of both sexes were included in the study. Fine Needle Aspiration Cytology (FNAC) of lymph nodes was done in all patients. Lymph node excision biopsy was only done in those patients whose FNAC was inconclusive.

Results: A total of 200 patients with enlarged cervical lymph nodes were included. Ages varied from 15 to 42 (mean of 28.5). 112 females and 88 males were included. All of these patients underwent FNAC and of these 34 patients with inconclusive FNAC underwent excision biopsy of lymph nodes 154(77%) of the patients had Tuberculous lymphadenitis 16(8%) of the patients had reactive hyperplasia 8(4%) of the patients had lymphoma 4(2%) of the patients had metastatic lymph nodes 18(9%) of the patients had chronic non specific lymphadenitis. Constitutional symptoms and family history were absent in most of the cases with tuberculosis and posterior triangle of the neck and deep cervical group was predominantly involved in this group. Most of the patients were from the lower socio-economic class, living in densely populated areas, maybe these were main etiological factors

Conclusion: Tuberculosis is still quite a common clinical condition affecting the cervical lymph nodes in our study in patients presenting in surgical OPD.

Keywords: Tuberculosis, cervical lymphadenopathy

INTRODUCTION

Chronic cervical lymphadenopathy (enlarged lymph nodes for more than three weeks) may result from a variety of different diseases like tuberculosis, malignant lymph node disease and metastatic disease. Lymphadenitis in the neck is the most common extra pulmonary manifestation of tuberculosis. It remains both a therapeutic and diagnostic challenge because it mimics other pathological processes and yields inconsistent physical and lab results. Diagnosis may be difficult, often requiring biopsy. A complete history and physical examination, staining for acid fast bacilli (AFB), FNAC and polymerase chain reaction (PCR) are helpful in reaching early diagnosis¹. The most common presentation is a swelling in the neck (92%), followed by fever, cold abscesses, non healing ulcers, discharging sinus and weight loss².

FNAC of cervical lymph nodes carries a high diagnostic accuracy. It provides important clues in guiding subsequent clinical management, and for the last two decades, FNAC has played an important role in the diagnosis of cervical lymphadenopathy with

high sensitivity and specificity, especially for malignancy^{3,4}.

METHODOLOGY

This was a descriptive study conducted at Ch. Rehmat Ali Memorial Hospital, Township, Lahore from January 2009 to December 2011.

Two hundred patients were included in this study. Variables studied were age, gender distribution and frequency of tuberculosis in cervical lymphadenopathy. Clinical presentation and family history were recorded.

Related investigations were carried out in all patients including complete blood picture, ESR, chest X-RAY. FNAC was done for tissue diagnosis. FNAC was inconclusive in 34 patients who underwent excision biopsy of the lymph node. Specific investigations like pus for AFB and culture were carried out in selected patients.

However, for detailed sub typing of certain disease entities, such as lymphoma, surgical biopsy for histological and immunochemical studies are required⁷. The objective of this study was to find out the frequency of tuberculosis in cervical lymphadenopathy in the patients presenting in surgical OPD.

*Assistant Professor, The Children's Hospital, Lahore.

** Assistant Professor, Continental Medical College, Lhr.

***Assistant Professor, Fatima Jinnah Medical College, Lhr.

Correspondence to Dr Imran Saeed 418-B, Faisal Town, Lahore Email: drimransaeed@gmail.com

Table.1. Differential diagnosis

Diagnosis	=n
Tuberculosis	154(77%)
Reactive hyperplasia	16(8%)
Lymphoma	8(4%)
Metastatic disease	4(2%)
Chronic non-specific	18(9%)

Table.2. Age and sex distribution

	Male	Female
Sex	88 (44%)	112(56%)
Age (years)	18 to 45 (31.5%)	15 to 42 (28.5%)

The most common age at presentation in males was 22 to 30 years and 15 to 28 in females.

Table 3: Distribution of lymph nodes (n=200)

Group of lymph nodes	n=
Deep cervical	94(47%)
Super clavicular	28(14%)
Submandibular	19(9.5%)
Posterior triangle	57(28.5%)
Occipital	2(1%)

RESULTS

A total of 200 patients were included in the study. 88 (44%) were males and 112(56%) were female. Ages varied from 15-45 years. The most common diagnosis was tuberculosis cervical lymphadenitis (77%). Majority of the patients (90%) were otherwise healthy adults and constitutional symptoms were present in only 10% of the patients. FNAC was the most effective diagnostic test (83%). ESR was markedly raised (70-92, mean 81) in 102 patients (51%), and marginally raised (25-33, mean 29) in 36 (18%) and normal (7-16, mean 21.5) in 62 patients (31%). Chest X ray with positive lesions was found in only 12% of the patients. Family history of the disease was uncommon.

DISCUSSION

Cervical lymphadenopathy is a common problem faced by all clinicians and majority of these patients are suffering from tuberculosis, which is a treatable disease. Tuberculosis is an important public health problem and is the most common cause of infectious disease affecting the lymphoid tissue of the body. Improved general public health and hygiene as well as introduction of anti-tuberculosis treatment have a dramatic effect on the occurrence of tuberculosis in different countries. Cervical lymphadenopathy due to tuberculosis has become a rare occurrence in western countries⁴. In Pakistan, the reported incidence of TB cervical lymphadenopathy is up to 75% of cervical lymphadenitis⁷. Tuberculosis cervical lymphadenopathy usually presents with multiple lymph node enlargement without constitutional signs.

FNAC plays a very important role in the diagnosis of cervical lymphadenopathy with very high accuracy in tuberculosis and malignancy. The presence of caseous material, epitheloid cells on FNAC and less frequently, acid fast bacilli on the cytology of aspirate, with ZN stain can be used for the diagnosis of tuberculosis^{5,8}. In case of inconclusive FNAC, excision biopsy of the lymph node should be done without delay to reach a final diagnosis. Open cervical lymph node biopsy is a common practice in surgical units and plays an important role in the diagnosis as well as treatment of cervical lymphadenopathy⁸.

CONCLUSION

It was noted in the study that frequency of tuberculosis in cervical lymph nodes was quite common in patients presenting in surgical OPD which might be due to poor hygienic conditions in which these socioeconomically weak patients were living.

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