ORIGINAL ARTICLE

AN AUDIT OF 140 CASES OF CERVICAL LYMPHADENOPATHY AT TERTIARY CARE HOSPITAL

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ABSTRACT

Background: Tubercular lymphadenopathy is the most common extra-pulmonary form of tuberculosis and cervical lymph nodes are the most commonly affected group of nodes. The objective of this study was to find out the frequency of various diseases in cervical lymphadenopathy.

Material & Methods: This cross sectional study was conducted at Departments of ENT and Pediatrics of Ghulam Muhammad Mahar Medical College Hospital, Sukkur from July 2007 to July 2011. All patients with cervical lymphadenopathy of at least two months duration were eligible for inclusion. Those younger than 6 years or more than 65 years, with generalized lymphadenopathy, bleeding diathesis, those taking/ taken treatment for tuberculous or malignant lymphadenopathy were excluded. All patients under went excisional/ incisional biopsies of cervical mass. The diagnosis was undertaken on morphological grounds. Gender and age group were demographic variables. The cause of lymphadenopathy was a research variable. All these were analyzed for frequency (number) and relative frequency (%).

Results: The total sample size was 140. Males were 80(57.14%) and females were 60(42.86%). Age ranged from 6-65 years. Most of the patients i.e. 60(42.86%) were in age group 21-40 year, so the younger age group was dominating. The tuberculosis was found the most common cause of cervical lymphadenopathy in 80(57.14%) patients, followed by reactive hyperplasia in 30(21.43%) patients, lymphoma in 2(14.28%) patients and metastatic malignancy in 10(7.15%) patients.

Conclusion: Early diagnosis of cervical lymphadenopathy is most important for the proper management of the underlying disease where excisional biopsy is diagnostic and should be performed without delay.

KEY WORDS: Tuberculous cervical lymphadenopathy, Reactive hyperplasia, Lymphoma, Metastatic malignancy.

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INTRODUCTION

Tuberculosis is a multi-system disease with myriad presentation and manifestations and is the most common cause of infectious disease related mortality worldwide. The World Health Organization (WHO) has estimated that 2 billion people have latent tuberculosis and in 2009, the disease has killed 1.7 million people globally.[1] It has a high prevalence in Asia and Africa, particularly in countries with low socioeconomic conditions.[2,3] It occurs in all age groups and nearly any organ can be involved. Tubercular lymphadenopathy is the most common extra-pulmonary form of tuberculosis and cervical lymph nodes are the most commonly affected group of nodes.[4] Cervical lymph nodes may get enlarged due to different diseases, like tuberculosis, lymphoma, metastatic focus of malignant lesions, sarcoidosis and other viral and bacterial infections of head, neck, throat and face. Tuberculosis remains both diagnostic and the therapeutic challenge because it mimics other pathological processes and yield inconsistent physical and laboratory findings. Diagnosis is difficult, often requiring biopsy. A complete history and physical examination, staining for acid fast bacilli (AFB), fine needle aspiration cytology (FNAC) and Polymerase chain reaction are helpful, in obtaining early diagnosis.[5] Commonest presentation may be neck swelling, followed by fever, cold abscess, non-healing ulcer, discharging sinus, anorexia and weight loss.[6] It is recommended that there should be access for all patients with cervical lymphadenopathy to weekly neck lump clinic with standardized protocols for lymphoma diagnosis.[7] Hodgkin's lymphoma, squamous cell carcinoma and metastasis from papillary thyroid cancer can co-exist in cervical lymph nodes.[8] The objective of the present study was to find out the frequency of various diseases in cervical lymphadenopathy.

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MATERIAL AND METHODS

This cross sectional study was conducted at Departments of ENT and Pediatrics of Ghulam Muhammad Mahar Medical College Hospital, Sukkur from July 2007 to July 2011.The patients were selected from ENT and Pediatric Departments. All patients with cervical lymphadenopathy of at least two months duration were eligible for inclusion. Those younger than 6 years or more than 65 years, with generalized lymphadenopathy, bleeding diathesis, those taking/ taken treatment for tuberculous or malignant lymphadenopathy were excluded.

After obtaining written consent from parents or patients, medical history including present symptoms, signs, current medications, socioeconomic status, family back ground and history of contact with tuberculosis were obtained and a separate proforma was filled for each patient. Following investigations were carried out, complete blood count, ESR, X-ray chest, ultrasound of neck, FNAC, and excisional/ incisional biopsy.

All biopsy specimens were preserved in 10% formalin, processed in routine manner and embedded in paraffin wax. Three-micron thick sections were cut and stained by Haematoxylon and eosin.[9] The diagnosis was undertaken on morphological grounds. Biopsy specimen containing caseating epitheloid cell granulomas were identified as tuberculosis by a senior histopathologist and other possible diagnosis were also made.

Gender and age group were demographic variables. The cause of lymphadenopathy was a research variable. All these were analyzed for frequency (number) and relative frequency (%) by SPSS 13 (SPSS Inc., Chicago, Illinois, USA).

RESULTS

The total sample size was 140. Males were 80 (57.14%) and females were 60 (42.86%). Age ranged from 6-65 years. Most of the patients i.e. 60 (42.86%) were in age group 21-40 year as shown in table 1, so the younger age group was dominating.

Table 1: Age Distribution of 140 patients with cervical lymphadenopathy.

S.No.	Age in years	Frequency (number) of patients	Relative frequency (%)
1	06-20	32	22.86%
2	21-40	60	42.86%
3	41-60	38	27.14%
4	61-65	10	07.14%
	Total	140	100%

The tuberculosis was found the most common cause of cervical lymphadenopathy in 80 (57.14%) patients, followed by reactive hyperplasia in 30 (21.43%) patients, lymphoma in 20 (14.28%) patients and metastatic malignancy in 10 (7.15%) patients as shown in table 2.

Patients from rural areas were 98 (70%) and from urban area were 42 (30%). Majority of the patients were otherwise healthy adults and constitutional symptoms were present in 8% only. ESR was raised in 10 (12.5%) patients with tuberculous cervical lymphadenitis. X-ray chest with positive lesions were found in 6 (7.5%) patients.

Table 2: Frequency of causes/ diseases in 140 cases of cervical lymphadenopathy.

S. No.	Causes of Cervical Lymphadenopathy	Frequency (number) of patients	Relative frequency (%)
1	Tuberculous lymphadenitis	80	57.14%
2	Reactive hyperplasia	30	21.43%
3	Lymphoma	20	14.28%
4	Metastatic malignancy	10	07.15%
	Total	140	100%

DISCUSSION

Tuberculosis is an important public health problem and it is commonest cause of infectious disease affecting the lymphoid tissues of the body.[10] As there was no previous study in this interior part of Sindh and WHO and Government of Pakistan has declared tuberculosis as global medical emergency, so we had examined neck masses for tuberculosis. In our study of 140 cases, tuberculous lymphadenitis constituted 57.14%, reactive hyperplasia 21.43% cases, lymphoma 14.28%, metastatic malignancies 7.15% cases. Our results, suggest that the history and clinical examination, along with routine laboratory investigations are non specific for the diagnosis of tuberculous lymphadenopathy, except biopsy. As 42.86% of patients had the non-tuberculous lymphadenopathy, in which 21.43% of patients had very serious underlying pathologic problem in form of lymphoma and metastatic malignancy, which always need biopsy to confirm the diagnosis. Our results are comparable with the reported in local and International literature review.[4,11,12] This study shows that the common cause of enlarged cervical lymph nodes was tuberculosis which is 57.14% consistent with local and International data.[4,12,13].In this study

males were 57.14% and females 42.86% were similar to the Iqbal et al[11] and Shaikh et al[12,13] while more females were reported in a study from India[14].

In our study tuberculosis was common in relatively young patients while malignancies were common in the old age group which is in accordance with local data as well as to International data.[15,16] In our study 21.43% had reactive hyperplasia of the cervical lymph nodes which is similar to the results of Shaikh et a [12] and others.[15,16] Lymphoma was present in 14.28% of cases in accordance with Khan et al.[15] Posterior cervical lymph node involvement was the most common site, followed by submandibular lymph nodes as locally reported.[12] The majority of patients presented in working age group 21-60 years as compared to local study with older age group predominatig.[11] As the tuberculosis is the disease of poor people, it is clear from our data that most of patients belonged to the rural area with poor socioeconomic conditions, poor nutritional status, over-crowded habitation and without proper hygienic measures. Family history of contact with tuberculosis was not present in most of the patients or denied as social stigmata. The constitutional symptoms were present in few cases, in the form of discharging sinus and abscess formation in 6 pediatric patients. X-ray chest lesions were evident in 7.5% of our tuberculous adenitis patients similar to Zaatar et al[17] and locally in 10.5% by Shaikh et al.[12]

CONCLUSION

Early diagnosis of cervical lymphadenopathy is most important for the proper management of the underlying disease where excisional biopsy is diagnostic and should be performed without delay.

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CONFLICT OF INTEREST
Authors declare no conflict of interest.
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