

A Clinicopathological Study of Cervical Lymphadenopathy

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ABSTRACT

Background: Head and neck region is rich in lymphatics. Cervical lymphadenopathy is one of the most common presentations of underlying pathological conditions of head and neck region both benign and malignant. **Methods:** This hospital based retrospective study was conducted in the department of ENT, SMGS Hospital, Jammu from August 2018 to September 2019. Patients with age more than 12 years having subacute cervical lymphadenitis in whom the lymph node did not regress after adequate antibiotic trial were included in the study. Age, sex, duration of symptoms, history of contact with tuberculosis patient and other relevant aspects were noted. Generalized systemic examination and ENT examination was done. In cases of metastatic lymphadenopathy, site of primary was noted. X ray chest, USG neck, FNAC and histopathological examination were done in all the patients. All the findings were noted in a performa and proper statistical analyses were performed. **Results:** 100 patients were included. The mean age was 23+3 years. The male to female ratio was 1.32:1. The frequently affected age group in males was 31-40 years whereas in females it was 14-20 years. Neck swelling was present in all the cases (100%), followed by fever, loss of weight, malaise, loss of appetite, cough, difficulty in swallowing and change in voice. Out of 100 cases of cervical lymphadenopathy in the present study, 15(15%) cases were due to neoplastic causes whereas 85(85%) were non neoplastic causes. Tuberculosis was the most common cause of cervical lymphadenopathy. Among the neoplastic causes of cervical lymphadenopathy, metastatic tumors were most common seen in 13(13%) patients. Tubercular lymphadenopathy, nonspecific lymphadenitis, unknown primary and non hodgkins lymphoma were also more common in males. This difference was statistically significant. Reactive lymphadenitis was more common in females as compared to males. Out of 13 cases of metastatic secondaries in the neck most of the patients presented with cancer larynx seen in 7(53.84%) patients. **Conclusion:** Tuberculosis is the most common cause for cervical lymphadenopathy. Fine Needle Aspiration Cytology (FNAC) is extremely sensitive and specific investigation for early diagnosis.

Keywords: FNAC, lymphadenopathy, tuberculosis.

INTRODUCTION

Lymph nodes are peripheral lymphoid organs. The prime function of lymph node is to deal with antigen, whether it's in the form of organisms or particulate material, or even soluble antigen. They respond to antigen by enlargement in size, shape, number and consistency.^[1] There are approximately 800 lymph nodes in the body. No fewer than 300 of them lie in the neck which is involved in various pathological conditions.^[2] Cervical lymphadenopathy implies an abnormal increase in size and altered consistency of lymph nodes. It is often used synonymously as swollen/enlarged lymph nodes. Cervical adenopathy is fairly common clinical presentation often poses a challenge to the attending clinician in making the diagnosis and in

ascertaining the management of the disease. Cervical lymphadenopathy can present as an isolated feature or as part of generalized lymphadenopathy.^[3,4] Analysis of cervical Lymphadenopathy is never straightforward and difficult in differential diagnoses that resemble with several diseases which include neoplastic disorders and inflammatory.^[5-8] Aspiration cytology, open biopsy and clinical evaluation are some methods for diagnosis of Lymphadenopathy. Every method has its own advantages and disadvantages. Currently histopathology examination is gold standard for diagnosis of Lymphadenopathy.^[9,10] The main aim of this study is correlation of Clinicopathological condition presenting with Lymphadenopathy.

MATERIALS AND METHODS

This hospital based retrospective study was conducted in the department of ENT, SMGS Hospital, Jammu from August 2018 to September 2019.

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Inclusion criteria:

Patients with age more than 12 years having subacute cervical lymphadenitis in whom the lymph node did not regress after adequate antibiotic trial.

Exclusion criteria:

Patients with acute infective lymphadenitis and children below 12 years of age. A detailed clinical history was taken. Age, sex, duration of symptoms, history of contact with tuberculosis patient and other relevant aspects were noted.

Generalized systemic examination was performed followed by detailed local examination.

Detailed ENT examination was carried out to find out any dental infection, tonsillar pathology or head and neck malignancy. In cases of metastatic lymphadenopathy, site of primary was noted. After establishing a provisional clinical diagnosis, further investigations were carried out to confirm the diagnosis. These included routine hematological investigations like hemoglobin estimation, total and differential leucocyte count, ESR, Liver function tests and blood sugar level were established as preoperative investigation. X ray chest, USG neck, FNAC and histopathological examination were done in all the patients. All the findings were noted in a performa and proper statistical analyses were performed.

RESULTS

100 patients were included in the present study. Different clinical and demographical variables were studied. The observations and results are as follows.

Age and sex distribution

The youngest patient was 14 years old and oldest was 70 years old. The mean age was 23+3 years. Age wise distribution is shown in Figure 1. There were 57 males and 43 females. The male to female ratio was 1.32:1. The frequently affected age group in males was 31-40 years whereas in females it was 14-20 years.

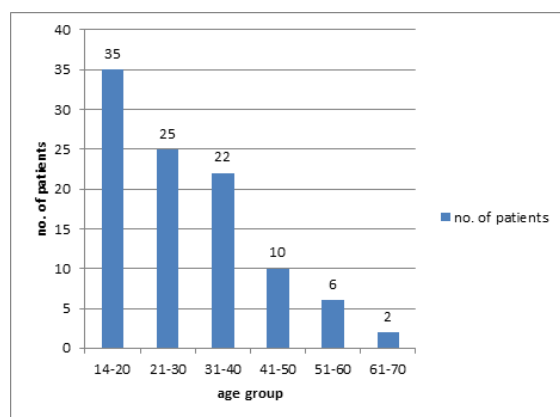


Figure 1: Age wise distribution of patients.

Chief complaints

In the present study neck swelling was present in all the cases (100%), followed by fever, loss of weight, malaise, loss of appetite, cough, difficulty in swallowing and change in voice. [Figure 2]

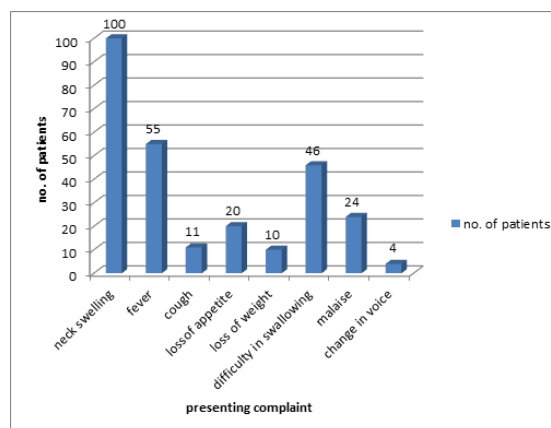


Figure 2: Distribution of cases according to presenting complaints

Distribution of patients according to etiology.

Out of 100 cases of cervical lymphadenopathy in the present study, 15(15%) cases were due to neoplastic causes whereas 85(85%) were non neoplastic causes. Tuberculosis was the most common cause of cervical lymphadenopathy due to non neoplastic causes seen in 55(55%) patients followed by reactive lymphadenitis. Among the neoplastic causes of cervical lymphadenopathy metastatic tumors were most common seen in 13(13%) patients. The primary site of involvement in metastatic lymphadenopathy was oral cavity, larynx, thyroid seen more commonly in males as compared to females. Tubercular lymphadenopathy, nonspecific lymphadenitis, unknown primary and nonhodgkins lymphoma were also more common in males. This difference was statistically significant. Reactive lymphadenitis was more common in females as compared to males. [Figure 3 & 4]

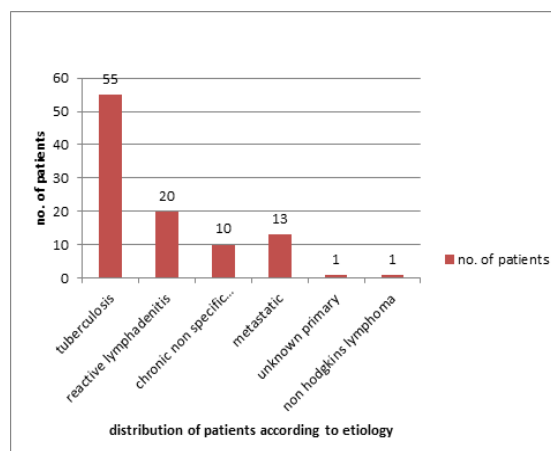


Figure 3: Distribution of patients according to etiology

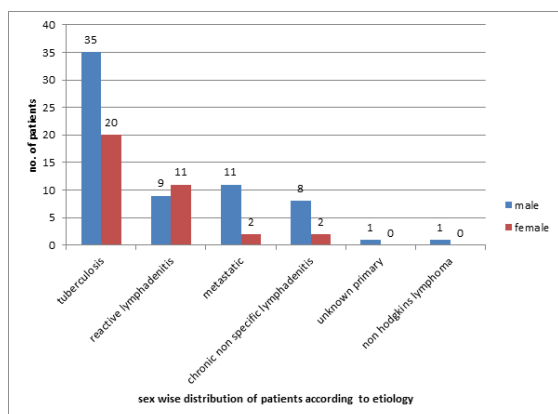


Figure 4: sex wise distribution of patients according to etiology.

Distribution of primary in malignant secondaries in neck (n=13)

Out of 13 cases of metastatic secondaries in the neck, most of the patients presented with cancer larynx seen in 7(53.84%) patients. Table 1 shows the distribution of primary in malignant secondaries in neck.

Table 1: Distribution of primary in malignant secondaries in neck.

Primary site of malignancy	Histopathological diagnosis	No. of patients
Larynx	Squamous cell carcinoma	7
Thyroid	Papillary carcinoma	2
Parotid	Mucoepidermoid carcinoma	1
Unknown	Adenocarcinoma	1
	Squamous cell carcinoma	2
Total		13

DISCUSSION

Cervical lymphadenopathy is a commonly observed entity by clinicians throughout the world. It could be secondary to most trivial causes like scalp infection to malignancy. One should be vigilant and correlate clinical radiological and pathological diagnosis to arrive at a proper diagnosis.

In the present study, there were 57 males and 43 females. The male to female ratio was 1.32:1. The frequently affected age group in males was 31-40 years whereas in females it was 14-20 years. This is in accordance with the studies conducted by Jha BC et al,^[5] Bedi RS et al,^[11] Umer MF et al.^[12] where overall the most common age group was 13-20 years. In the present study, neck swelling was present in all the cases(100%), followed by fever, loss of weight, malaise, loss of appetite, cough, difficulty in swallowing and change in voice which is similar to the studies conducted by Jha BC et al,^[5] Wahid F et al,^[13] and Jalal BA et al.^[14]

Out of 100 cases of cervical lymphadenopathy in the present study, 15(15%) cases were due to neoplastic

causes whereas 85(85%) were non neoplastic causes. Tuberculosis was the most common cause of cervical lymphadenopathy due to non neoplastic causes seen in 55(55%) patients followed by reactive lymphadenitis. Among the neoplastic causes of cervical lymphadenopathy metastatic tumors were most common seen in 13(13%) patients. The primary site of involvement in metastatic lymphadenopathy was oral cavity, larynx, thyroid seen more commonly in males as compared to females. Tubercular lymphadenopathy, nonspecific lymphadenitis, unknown primary and nonhodgkins lymphoma were also more common in males. This difference was statistically significant. Reactive lymphadenitis was more common in females as compared to males. These findings are similar to findings by Jha BC et al,^[5] Mutiullah S et al.^[15] and Dwarsoki I.^[16]

Tuberculous cervical lymphadenopathy is a frequent disease in India. Therefore it is important that a high index of suspicion for tubercular lymphadenopathy is required. Early diagnosis and treatment will cure the disease also prevent complications like cold abscess and sinus formation.

CONCLUSION

On the basis of present study, it can be concluded that tuberculosis is the most common cause for cervical lymphadenopathy. Clinical symptoms in cervical lymphadenopathy has limited significance and clinical behaviour can be highly variable. Dependence on clinical evidence alone would lead to erroneous diagnosis in a considerable number of cases. Fine needle aspiration cytology is a cheap, quick, readily available and dependable diagnostic modality and can be used as a first line investigatory tool in outdoor departments.

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