

A Clinicopathological Study of Cervical Lymphadenopathy

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ABSTRACT

Background: Cervical lymphadenopathy is one among the common presentations in ENT OPD with its causes ranging from mild infections to life-threatening malignancies.

Materials and methods: About 50 patients presenting to ENT OPD with cervical lymphadenopathy were selected after taking informed consent. Routine clinical laboratory and pathological investigations were done. Radiological investigations and open biopsy were done if required.

Results: Reactive and malignancy cases accounted for the most cases, contributing 68% (34 out of 50) of all cases, or 34% each. Only a quarter of the cases (12 out of 50) were due to tuberculosis. Out of 50 cases, only two were diagnosed with lymphoma and nonspecific lymphadenitis. In this investigation, out of 50 cases, 44 cases diagnosed clinically matched the FNAC findings, whereas 6 cases were found to be different, resulting in 88% clinical diagnostic accuracy. And 43 of the radiologically diagnosed patients had the same FNAC diagnosis, while 7 of them differed on cytological analysis, resulting in 86% radiological diagnostic accuracy.

Conclusion: Clinical evaluation followed by FNAC aids in the diagnosis of a case of cervical lymphadenopathy and can serve as a record for future care. For the diagnosis and treatment of the underlying cause, a thorough clinical examination and thorough investigations are required. If the diagnosis is delayed, the underlying cause may become incurable.

Keywords: Cervical lymphadenopathy, FNAC, Lymph node, Malignancy, Reactive, Tubercular.

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INTRODUCTION

Nodes that are aberrant in size, consistency, or number are referred to as lymphadenopathy.¹ Significant cervical lymphadenopathy is defined as the lymph nodes in the neck that are swollen by more than 1 cm.² The gold standard investigation in the work up of a neck mass is fine needle aspiration cytology.³ Other diagnostic methods for determining the etiology of cervical lymphadenopathy include ultrasonography, computed tomography, and PET CT neck.⁴ Given the variety of etiologic variables, prompt examinations and treatment are critical in these instances. This research is being carried out in order to determine the most common causes of cervical lymphadenopathy, which will aid in the subsequent investigation and therapy of such cases.

MATERIALS AND METHODS

About 50 patients presenting to ENT OPD with cervical lymphadenopathy were selected after taking informed consent. Routine clinical, laboratory, and pathological investigations were done. Radiological investigations and open biopsy were done if required.

RESULTS

On analyzing the collected data, it was observed that more cases of cervical lymphadenopathy that is 11 out of 50 cases (22%) were in the age group of 16–25 years, while only 8% of the cases were found to be of age more than 66 years. Our study showed mild male preponderance, 56% (28 out of 50 cases) of cases being male while 44% (22 out of 50 cases) being females.

About 18% had fever as an associated complaint while 36% had various other complaints. Only 16% had complaints of loss weight or appetite even though malignancy and tuberculosis accounted for 58% of the cases.

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And 50% of the cases were found to have right side affected and 32% had left side affected. About 18% of the cases had bilateral lymphadenopathy. No cases of central lymphadenopathy were a part of the study 68% of the palpable lymph nodes were found to be firm in consistency while 32% were hard in consistency (Fig. 1).

Level II was found to be the most commonly involved group of lymph node. About 80% of the palpable nodes were multiple, and most common groups involved in multiple palpable nodes were level II and III. And 66% (33 cases out of 50) were found to be benign.

Reactive and malignancy accounted for the maximum number of cases covering 68% (34 out of 50 cases) cases in total, 34% each. Even though tuberculosis is thought to be the most common cause of cervical lymphadenopathy in developing countries like India, it accounted for only 24% (12 out of 50) of cases. Only 2 cases, each out of 50 cases, were diagnosed as lymphoma and nonspecific lymphadenitis (Table 1).

Tubercular lymphadenopathy was clinically diagnosed in 16 out of 50 cases and radiologically in 19 out of 50 cases but

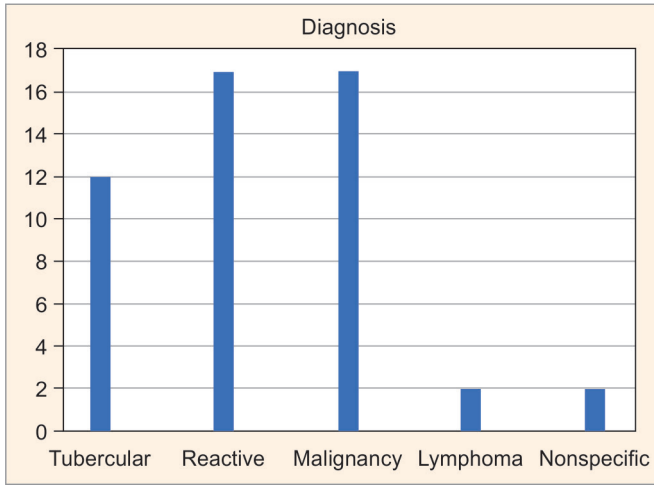


Fig. 1: Chart showing etiology of cervical lymphadenopathy

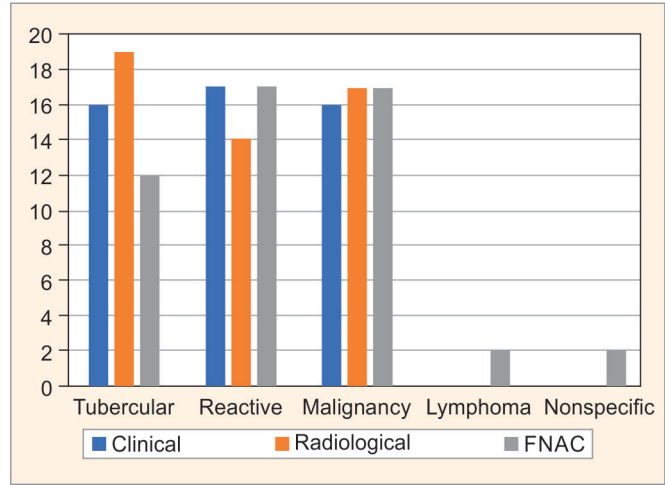


Fig. 2: Chart comparing diagnosis by clinical examination, radiological investigations, and FNAC

Table 1: Table showing number of patients with cervical lymphadenopathy in different age groups

Age	Gender		Total
	Male	Female	
5–15	5	2	7
16–25	7	4	11
26–35	2	6	8
36–45	2	5	7
46–55	3	2	5
56–65	6	2	8
66–75	1	0	1
76–85	2	1	3
Total	28	22	50

Table 2: Table showing number of lymph nodes in different cervical lymph node groups

Level	No
I	14
II	39
III	21
IV	16
V	15
VI	2
VII	0

according to FNAC, it was found only in 12 out of 50 cases. Reactive lymphadenopathy was suspected in 17 out of 50 cases after clinical examination and in 14 out of 50 cases after radiological investigations. After pathological examination, the clinical suspicion was found to be more accurate accounting for 17 out of 50 cases. Malignancy was suspected clinically in 16 out of 50 cases while radiological and pathological examination diagnosed 17 out of 50 cases as malignant cervical lymphadenopathy (Table 2). Lymphoma and nonspecific lymphadenopathy were diagnosed as reactive lymphadenitis on clinical and radiological assessment, while 2 cases each out of 50 cases were diagnosed in FNAC (Fig. 2).

DISCUSSION

A study of 50 cases of cervical lymphadenopathy attending ENT OPD in a tertiary care hospital over a period of 2 years were selected examined and analyzed. The observations and results of the study were compared with similar studies.

In the study done by Devendra KP et al., which concluded that 54% of the cases were in the age group 13–30 years.² Gorle in his study also reached a similar conclusion that more cases are in the age group of 12–40 years.⁵ Pandey et al., in their study, suggested that more number of cases were in the age group of 21–30 years.⁶ This was similar to our study which concluded that more number of cases were in the age group of 16–25 years amounting to 22% with 11 cases out of 50 cases.

In the study, 56% of males were found to be affected while 44% of females were affected. The M:F ratio is 1.27:1. This was similar to the study conducted by Pandey et al., which suggested that the male:female ratio is 1.3:1.

In the study conducted by Melkundi et al. in which 46% of cases had right side involved and 38% had left side involved. Both sides of neck were involved in 14% and central group involvement was seen in 2%. This was comparable to our study in which right side of neck was involved in 25 cases (50%) followed by 16 cases (32%) on left side, bilateral involvement was seen in 9 cases (18%).

According to the study conducted by Ghate GA et al. which stated that the commonest cause was reactive lymphadenitis due to tonsillopharyngitis (42%) followed by cervical metastasis of head and neck malignancies (18%) and tuberculosis (14%).⁴ Biswas stated that taking FNAC as the final diagnosis, tubercular lymphadenopathy was the most common diagnosis (45.4%). In metastatic lymphadenopathies, squamous cell carcinoma was found to be most common (8.5%).⁷ In our study, we found out that reactive and malignancy accounted for the maximum number of cases amounting to 68% (34 out of 50 cases) cases in total, 34% each. Accounted for only 24% (12 out of 50) of cases. Only 2 cases each out of 50 cases were diagnosed as lymphoma and nonspecific lymphadenitis.

In this study of 50 cases it was found that 44 cases diagnosed clinically matched with the FNAC findings while 6 were found to be different; therefore, clinical diagnostic accuracy is 88%, which

is similar to the clinical diagnostic accuracy of 82% in the study conducted by Melkundi RS and Melkundi S.³

CONCLUSION

Cervical lymphadenopathy has a wide range of causes, ranging from acute infections to life-threatening cancers, which necessitate rapid diagnosis and treatment. In majority of the cases, inadequate examination and investigation result in delay in correct diagnosis and may result in inadvertent iatrogenic complication due to improper diagnosis.⁸ It may be inferred from this study that clinical examination followed by FNAC aids in the definite diagnosis^{9,10} of a case of cervical lymphadenopathy and can serve as a record for further management. Only a few situations where FNAC is inconclusive need an open biopsy.

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