

TITLE: “A Clinico-pathological study of cervical lymphadenopathy”

AUTHORS: Arunkumar D, Pratibha Arun, Neeta PN

1 Arun kumar. D,

1 Senior Resident, RIMS, Raichur

arunkumarsurgeon@gmail.com

9481467781

2 Pratibha,

2 Casualty medical officer, RIMS, Raichur

3 Neeta PN

3 Assistant professor, VIMS, Ballari

drnita10@gmail.com

9844190501

Abstract:

Cervical lymphadenopathy is one of the common presenting complaints of patient in surgical OPD (out-patient department). Fine Needle Aspiration Cytology (FNAC) is one of the most reliable, less expensive, and basic diagnostic procedure for the definitive and conclusive diagnosis of the immune system which presents in the form of enlarged lymph nodes. A study was conducted in surgery Department of Fr. Muller Medical College Hospital, Manipal from May 2011 and March 2013 on 102 patients with enlarged cervical lymph nodes. FNAC was done to make the diagnosis. Out of 102 patients 22.5 % tubercular, 57.8% chronic NSL 4.9% Hodgkin's lymphoma and 14.8 % were malignant. FNAC is one of the most dependable diagnostic tools in case of cervical lymphadenopathy for early diagnosis and detection for the better management.

Keywords: Cervical Lymphadenopathy, Fine needle aspiration cytology, Clinicopathological

Introduction: Cervical lymphadenopathy, is very common presentation in surgery as well as otolaryngology out patient department.¹ Lymph node enlargement may be due to Malignancy, Infections, Autoimmune diseases, Miscellaneous/unusual conditions, and iatrogenic causes.² Fine needle-aspiration cytology (FNAC) represents a cost-effective and rapid technique for the assessment of nodules and masses within the head and neck area. The analysis of lymph node enlargement in the neck is difficult due to similar presentations of other diseases with neck swellings. The aetiology appears to be infective in developing countries like India where as in developed countries malignancy is the common cause.³ Most common cause may be pulmonary tuberculosis. Improper diagnosis and the treatment may be a potential cause for an incurable disease. Hence, surgeon often needs the aid of pathologists, bacteriologists and many a times the biochemists also. Purpose of present study was to know about the various clinical presentations of cervical lymphadenopathy and to correlate pathological findings with the clinical diagnosis, to study the diagnostic accuracy of FNAC by correlating with confirmed biopsy report.

Methodology: It was a cross-sectional study, carried out over a period from May 2011 and March 2013 and study was conducted on 102 patients visiting the in-patient and out-patient surgery department for Lymph node enlargement in the neck during the above-mentioned period of evaluation at a tertiary care centre of Mangalore. Exclusion criteria included the cases with generalized lymphadenopathy, who did not come for regular follow-up and who did not complete or receive any medical or surgical treatment and cases who were not willing to participate in this study. Once the patient consented to the study, a pre drafted proforma was used to evaluate all patients. A detailed history was taken and a thorough clinical examination was done to assess involved lymph nodes and its draining area was done. After making a clinical diagnosis, further investigations were carried out. Fine Needle Aspiration Cytology (FNAC) was done in all the 102 cases and diagnosis was confirmed by histology.

Results:

The present study included 102 patients, both out-patient and in-patient surgery department of tertiary care centre of Mangalore from May 2011 and March 2013. All 102 cases were evaluated by a detail history, clinical examination and investigation like x-ray, FNAC and excisional biopsy according to proforma for cervical lymph node enlargement.

Variable	Frequency	Percentage
Age		
≤ 20	17	16.7
21-40	33	32.4
41-60	29	28.4
> 60	23	22.6
Sex		
Female	44	43.1
Male	58	56.9

Malignancy	Frequency	Percentage
Benign	71	69.6
Malignant	31	30.4

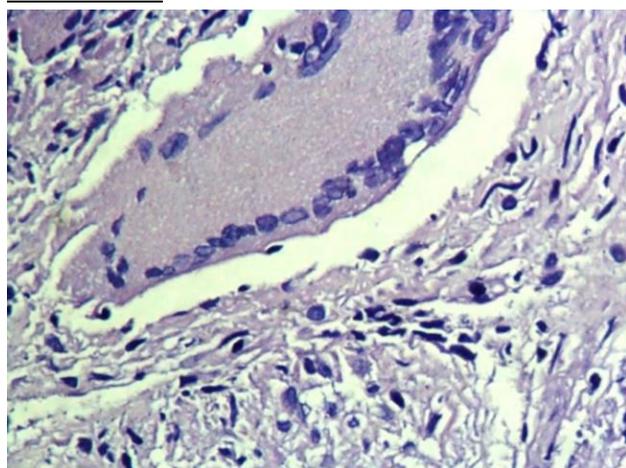
Diagnosis	Frequency	Percentage
Tuberculosis	49	48.01
Chronic NSL	28	27.45
Secondaries	23	22.54
Hodgkin's	2	2

disease		
Total	102	100

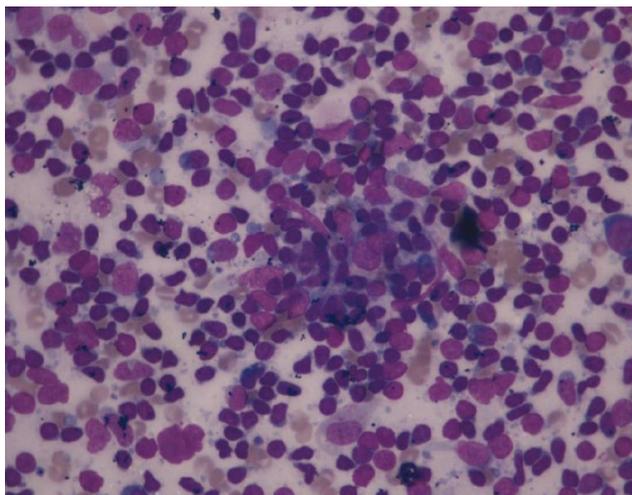
Table 4: Distribution of cases as per HPE diagnosis		
Diagnosis	Frequency	Percentage
Tuberculosis	33	32.35
Chronic NSL	35	34.32
Secondaries	15	14.7
Hodgkin's disease	19	18.63
Total	102	100

Table 5: Distribution of cases as per FNAC diagnosis		
Diagnosis	Frequency	Percentage
Tuberculosis	23	22.54
Chronic NSL	59	57.86
Secondaries	15	14.7
Hodgkin's disease	5	4.9
Total	102	100

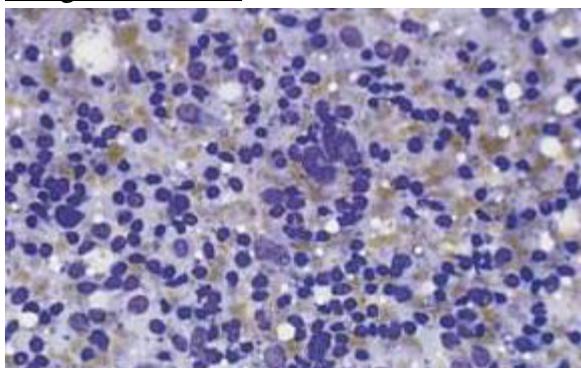
Tuberculosis



Lymphoma



Hodgkin's disease



Discussion:

The aim of the study was to find out different pathological conditions with the patients who were presented with enlarged lymph nodes in the neck, also the different ways of clinical presentation. Present study involved 102 cases of cervicallymphadenopathy. The study was conducted at tertiary care hospital. Data among all the 102 cases, 71(69.6%) were benign lesions and 31(30.4%) malignant lesions. In the benign lesions, it was observed that the commonest cause was tuberculous lymphadenopathy (48%) followed by chronic nonspecific lymphadenopathy (27.45%). In malignancy there were 22.54% secondaries and 2% cases of Hodgkins lymphoma. Similar presentation of incidence was reported in many studies.^{2,4,5} A study done by Shakya et al⁶, reported that incidence of lymphadenopathy was more common among malignancy as compared to benign. This may be due to more existence of chronic diseases in the developed countries.

Our study revealed that, males (56.9%) reported more commonly than females (43.1%) with more common age group of 21-40 years (32.8%) then 41-60 years (28.4%). Similar findings were reported in the study done by Gautam B⁷, Naeimi Mohammad et al.⁸ Alam Kiran et al.⁹ Whereas Mansoor Ibrahim and Abdul-Aziz Sayed¹⁰ observed that TB lymphadenitis occurred most commonly in young female (65.2%).

In the present series, tuberculosis accounted for 48% of cases, 28% turned out to be chronic non-specific lymphadenitis and 20% reactive lymphadenitis. Among the neoplastic lesions, malignant secondaries and non-Hodgkin's lymphomas accounted for 8% each, while Hodgkin's lymphoma comprised the remaining 2%. Similar observations were made by Jha B.C. et al.¹¹, who studied 94 cases, of which tuberculosis was confirmed in 63.8% cases.

FNAC evaluation of the lymph-node revealed that the reactive lymphadenopathy was the most common pathology which could be easily detected IN FNAC (26%). Similar to the study by Magsi et al¹² 21.43% had reactive hyperplasia of the cervical lymph nodes. Borse H² et al reported that all the 74% of the patients confirmed on FNAC were diagnosed clinically to have tuberculosis. In the retrospective study¹⁹ the accuracy was found to be exactly the same as the present study, Reported similar results²⁰ of 83% accuracy.

Conclusion:

Tuberculosis is one of the among the common diseases which affects lymph nodes. It can be curable with anti-tubercular drugs if administered according to WHO guidelines under RNTCP. A essential symptom in cervical tubercular lymphadenitis has meagre significance and clinical behaviour can be liable to change. Early diagnosis and complete treatment will prevent further development of the disease and helps to cure it. Most of the cervical lymphadenopathy is caused by diseases which are medically curable with limited role for surgery in non-neoplastic lesions.

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