



## A Clinicopathological Study of Cervical Lymphadenopathy at RIMS Ranchi

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### Abstract

**Introduction:** Neck lesions are responsible for a significant cause of mortality and morbidity in India. Various benign and malignant lesions are found in the neck region involving thyroid, salivary glands, lymph nodes, upper aero-digestive tract (throat), skin, soft tissues, etc. Cervical tubercular lymphadenopathy is the most common extra pulmonary manifestation tuberculosis is considered to be tubercular in origin until unless proven otherwise.

**Material and Method:** 50 cases of OPD/IPD in general surgery department of RIMS complaining cervical lymphnode swelling from August 2018 to July 2019 are included in this study. The differential diagnosis in a patient presenting with neck lymphnode is often extensive and will vary with age. These neck lymphnode are evaluated by a detail history, clinical examination and investigation.

**Conclusion:** Neck lymphadenopathy can be supposed to be tubercular in origin in age group 12-30yr. until unless proven otherwise. histopathological examination remains the most dependable diagnostic tool. In tubercular lymphadenitis the Level 2 (upper jugular group) was the most commonly involved

**Keywords:** Cervical lymphadenopathy, FNAC, histopathological examination.

### Introduction

Neck lesions are one of the important cause of mortality and morbidity in India. Various lesions are found in the neck region which may be benign and malignant involving thyroid lesion, lymphadenopathy, salivary glands lesion, skin, soft tissues, etc. India has the world's biggest goiter belt in the Sub Himalayan region with nearly 55 million cases are estimated to be suffering from endemic goiter. Currently, no less than 140 million people are estimated to be living in goiter endemic regions of the country<sup>1</sup>.

Cervical lymphadenopathy me be inflammatory, bening or malignant. Cervical tubercular

lymphadenopathy is the one of the most common extra pulmonary manifestation tuberculosis after pulmonary tuberculosis. So it is considered to be tubercular in origin until unless proven otherwise.

In the neck region, malignant lesions can present as primary as well as metastasis from various organs of the body. The following rule should apply: an adult with a lump in the lateral neck has cancer until proven otherwise. So for this type of these swellings, efforts should be aimed at diagnosed the malignancy.

Neoplasms of neck region are a major form of cancer in India, accounting for 23% of all cancer in males and 6% in females<sup>2</sup>. Tobacco and alcohol

are one of the important aetiology. Recently incidence of cancer related to oral cavity and neck significantly increase due to tabbaco chewing in the form of gutakha. Low socioeconomic condition itself a risk factor because of it is related to poor hygiene, poor diet or infections of viral origin. The risk of carcinoma directly proportional to the intensity and duration of the exposure to carcinogen.

Fine needle aspiration cytology (FNAC) is a simple, fast and very cost effective method to diagnosis of cervical lymph node pathology with good sensitivity and specificity. FNAC can be done on OPD basis with minimal complication and minimum time.

## Material and Method

### A. Source of Data

All cases of OPD/IPD IN General surgery department of RIMS complaining neck related swelling.

### B. Method of Data Collection

The differential diagnosis in a patient presenting with neck mass is often extensive and will vary with age. These neck masses are evaluated by a detail history, clinical examination and investigation likex x-ray, FNAC, USG neck, CT Neck and excisional biopsy according to proforma.

**A) Duration of study:** From August 2018 to July 2019

**B) Sample Size:** 50 cases OPD/IPD Pt. of general surgery department at RIMS Ranchi

### C) Inclusion Criteria

- 1) Cases of neck swelling, with or without previous history of any medical or surgical treatment for the same.
- 2) Cases which were regular for post treatment follow-up.
- 3) Patients willing to be part of this study.

### D) Exclusion Criteria

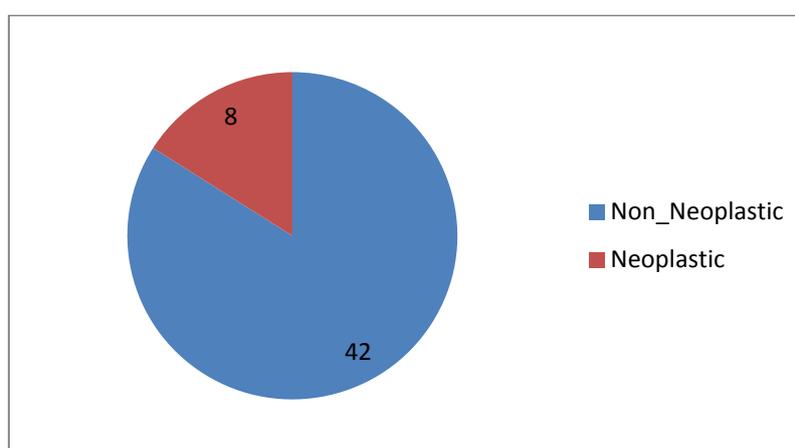
- i. Patients not willing to participate in study
- ii. Patients with last stage of malignant tumour
- iii. Cases which did not come for regular follow-up and who did not complete or receive any medical or surgical treatment.
- iv. vascular swelling of neck
- v. Pregnant female

## Result

The present study includes 50 patients, both outpatients department and indoor patients at of rajendra institute of medical science from august 2018 to august 2019. In the present series 50 cases were evaluated by a detail history, clinical examination and investigation likex x-ray, FNAC, USG neck, CT Neck and excisional biopsy according to proforma. for cervical lymph node enlargement.

Table showing the number and percentage of non-neoplastic and neoplastic lesions

	No. of pt.	Percentage
Non_Neoplastic	42	84%
Neoplastic	8	16%

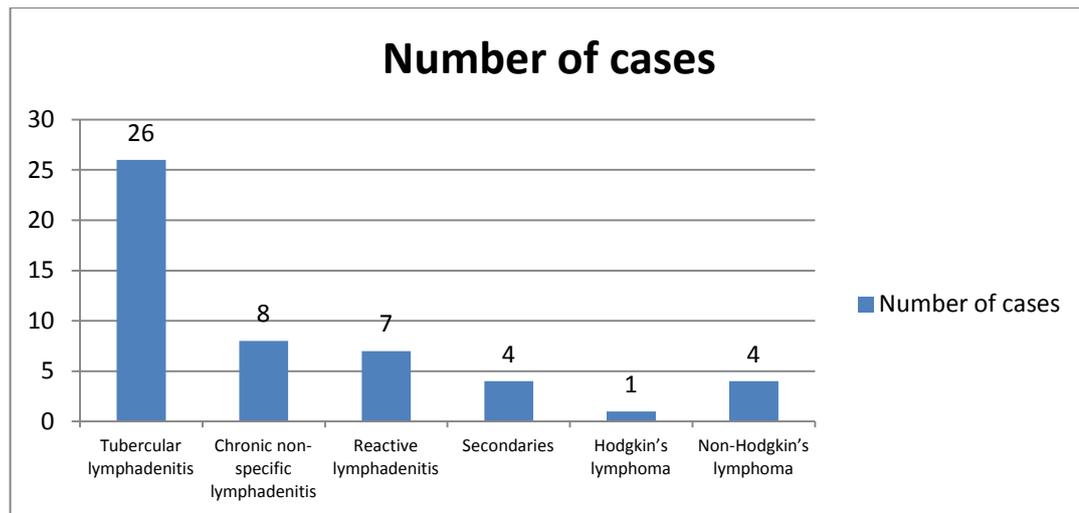


Pi chart showing neoplastic and non neoplastic lesion

Among the neoplastic causes, lymphomas had the maximum number of cases (5 cases) followed by secondaries (3 cases)

Histopathological diagnosis	Number of cases	Percentage
Tubercular lymphadenitis	26	52
Chronic non-specific lymphadenitis	8	16
Reactive lymphadenitis	7	14
Secondaries	4	8
Hodgkin's lymphoma	1	2
Non-Hodgkin's lymphoma	4	8
Total	50	100

Table showing histopathological diagnosis



Graph showing histopathological diagnosis

Table showing age distribution

Age group in years	No. of cases in males	No. of cases in females	Total	Percentage
12-20	8	3	11	22
21-30	10	7	17	34
31-40	3	5	8	16
41-50	3	3	6	12
51-60	2	1	3	6
> 60	2	1	3	6
Total	30	20	50	100

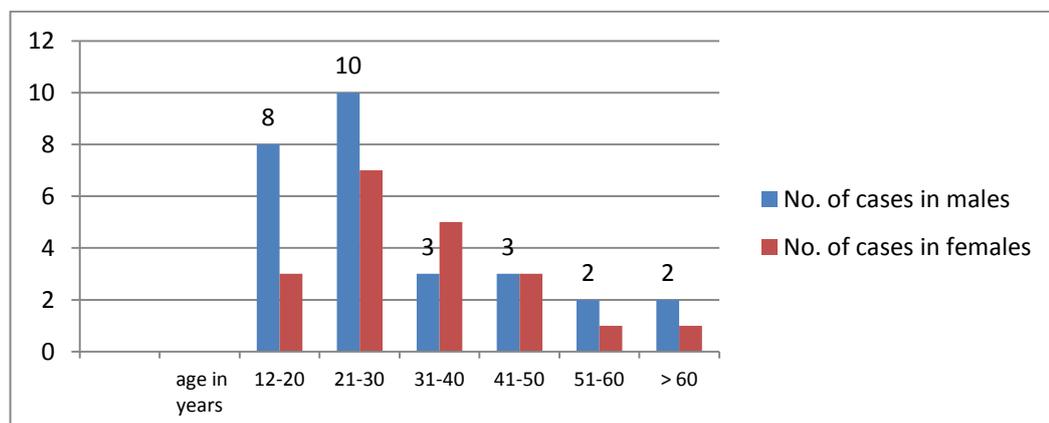
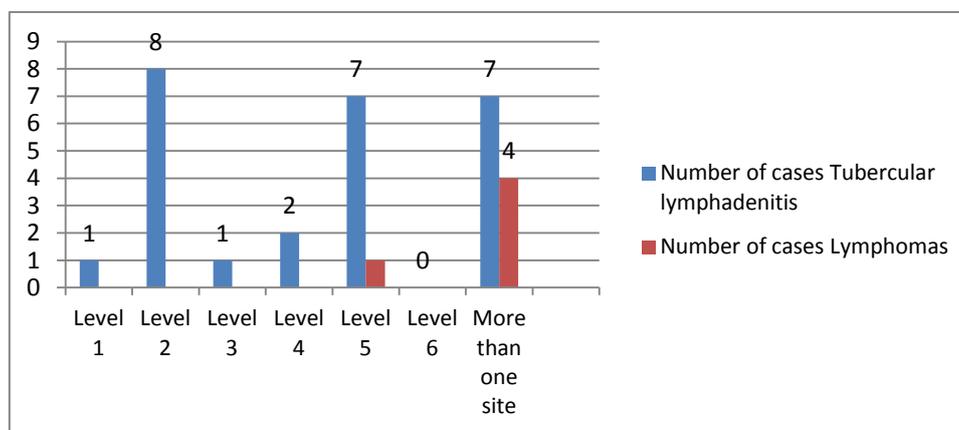


Table showing site distribution of tubercular cervical lymphadenitis and lymphomas

Site	Number of cases (with percentage)	
	Tubercular lymphadenitis	Lymphomas
Level 1 (submental and submandibular group)	1 (3.8)	0
Level 2 (upper jugular group)	8 (30.7)	0
Level 3 (middle jugular group)	1(3.8)	0
Level 4 (lower jugular group)	2 (7.6)	0
Level 5 (posterior triangle group)	7 (26.9)	1(20)
Level 6 (anterior compartment group)	0	0
More than one site in neck	7 (26.9)	4 (80)
Total	26	5



Graph Table showing site distribution of tubercular cervical lymphadenitis and lymphomas

**Conclusion**

- 1) Tuberculosis is an important disease, one of the commonest disease affecting lymph nodes, it is curable with antituberculous drugs if administered as per the accepted regimen. More than 50% pt with neck lymph adenopathy diagnosed as tubercular in origin and patient responded well with anti tubercular drug according to dots regimn.
- 2) Most commonage of presentation is 12-30 yrs and in this age group bening dease is more common
- 3) In only 16% pt. of neck lymph adenopathy have malignant disease specially after 40yr of age.
- 4) The neck lymph nodes were classified as levels and the involvement was studied for each category. Only tubercular and

lymphomas are considered here. In the present series, it was observed that Level 2 (upper jugular group) was the commonest to get involved in tuberculosis (30.7%) followed by Level 5 (posterior triangle group) group (26.9%). Levels 1, 3 and 4 were almost equally involved. About 27% cases had more than one site involvement. In comparison 80% cases of lymphomas had more than one site involvement with only 20% cases afflicting the posterior triangle group.

**Summery**

- 1) Neck lyphadenopathy can be supposed to be tubercular in origin in age group 12-30yr. until unless proven otherwise.
- 2) Antitubercular drug should be started as early as diagnosis is confirmed.

- 3) FNAC can be deemed as a frontline investigation with further investigations on the basis of FNAC result. However, histopathological examination remains the most dependable diagnostic tool.
- 4) In tubercular lymphadenitis the Level 2 (upper jugular group) was the most commonly involved group of cervical lymph nodes (30.7%), followed by Level 5 (posterior triangle group) (26.9%). About 30% cases had more than one site involvement. In lymphomas, 80% cases had more than one site involvement

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