



## Original Article

# Tubercular Cervical Lymphadenopathy Clinicopathological Study of Thirty Cases

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### Abstract

A clinico-pathological study of tuberculosis in cervical lymph nodes was carried out among 30 cases irrespective of age and sex. Tuberculosis was common in adolescent and young adult life (63.3%). It was more prevalent in female (63.4%) and in poor socioeconomic condition (60%). Most of the cases were non-vaccinated (70%) and majority (70%) was tuberculin positive.

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### Introduction

Tuberculosis remains a problem throughout the world and is still a common cause of cervical lymphadenopathy in many developing countries. The condition most commonly affects children and young-adults but can occur at any age. The jugulodigastric nodes are most commonly affected, but there may be a widespread cervical lymphadenitis and the matted-together of a substantial number of lymph nodes may be evident.

In most cases, the tubercular bacilli gain entrance through the tonsil of the corresponding side of the lymphadenopathy. In approximately 80% of cases, the tuberculous process is limited to the clinically affected group of lymph nodes but a primary focus in the lungs must always be suspected and investigated.<sup>1</sup>

### Materials and Methods

This clinicopathological study was conducted among 30 patient of cervical lymphadenopathy. Patients were selected from history and clinical

examination. A set of necessary investigations were done in all the selected patients and diagnosis was confirmed by histopathology examination.

Study was conducted at Naogaon Sadar Hospital forms 1996 to 2002. All relevant information were recorded on a prescribed proforma.

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### Results

In this small series age related incidence of tuberculosis was revealed that peak incidence of tubercular adenitis was in the second and third decades of life (table-1)

**Table-1.** Age related incidence of tuberculosis (N-30)

Age (Years)	Number of patients	Percentage
0-10	5	16.7%
11-20	10	33.3%
21-30	9	30.0%
31-40	3	10%
41-50	3	10%

It was revealed that female were affected more (63.4%) than male in tubercular neck mass. (Table-2)

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**Table-2.** Sex related distribution of tuberculous cervical neck mass (N=30)

Sex	Number of Patient	Percentage	Male: Female ratio
Male	11	36.6%	
Female	19	63.4%	1:1.73

Neck mass due to tubercular adenitis was found mostly in jugulodigastric group of nodes (33.3%) followed by posterior triangle (20%) and multiple sites (20%) shown in table-3

**Table-3:** Site of neck mass in tuberculosis (N=30)

Site	Number of patients	Percentage
Jugulodigastric	10	33.3%
Posterior triangle	6	20.0%
Multiple sites	6	20.0%
Submandibular	4	13.3%
Midjugular	3	10.0%
Supraclavicular	1	3.4%

In this series one case of active pulmonary tuberculosis was found in 30 cases of tubercular cervical neck mass (table-4)

**Table-4:** Incidence of active pulmonary tuberculosis in tubercular cervical neck mass (N=30)

Active lung tuberculosis	Number of patients	Percentage
Absent	29	96.7%
Present	1	3.4%

Tuberculin test was positive in 70% of patient in this study and negative in 30% of patient (table-5)

**Table-5:** Result of tuberculin test in tuberculous cervical lymphadenitis (N- 30)

Test result	Number of patients	Percentage
Positive	21	70%
Negative	9	30%

Regarding BCG vaccination among tuberculous cervical lymphadenitis patients it was found that there was significant increase in incidence of cervical tuberculosis (70%) among non-vaccinated patients (Table-6).

**Table-6:** Incidence of BCG vaccination among tubercular cervical lymphadenitis patients (N=30)

Vaccination status	Number of patients	V:N ratio
Vaccinated (V)	9	
Non vaccinated (N)	21	1:2.33

Regarding socio-economic condition of the patient it was found that tuberculosis was prevalent in poor class of people (60%). (Table-7).

**Table-7:** Socioeconomic condition in tuberculous neck mass patient (N=30)

Socioeconomic condition	Number of patients	Percentage
Poor	18	60%
Average	9	30%
Good	3	10%

## Discussion

Cervical lymphadenitis due to Tuberculosis is one of the common problem in general surgical practices.

In this study maximum incidence of tubercular lymphadenitis was found in adolescent and young adult age group. It was common in poor socio-economic condition and female were more commonly affected. "During the first five year of life the body resistance is poor against tuberculosis. From five to fifteen years resistance is at its peak, but it breaks down during the early adult period, from 15 to 30 years particularly in women. After 30 years resistance is quite high but it breaks down again in old age particularly in men.<sup>2</sup> This study was similar with mentioned reference.

In this small series it was found that jugulodigastric lymphadenitis was most common followed by posterior triangle and multiple sites. In a study by Dandapat et al.<sup>3</sup> The highest incidence was seen in jugulodigastric and followed by multiple sites. This finding was also supportive.

Study shows cervical tubercular lymphadenitis was usually not secondary to pulmonary Tuberculosis. This view was consistent with Harris et al<sup>4</sup>

Among the patient of cervical Tubercular lymphadenitis 70% were tuberculin positive. This was 74% positive in a study by Dandapat et al<sup>3</sup> This study shows 70% of the patient were non vaccinated. This gives an idea that vaccination produces significant change in the incidence of tubercular lymphadenitis. BCG vaccination had been proved to be reducing the incidence of tuberculosis by 80% compared with unvaccinated control in the develop countries<sup>5</sup>. This study in this country also shows that tuberculosis is more common in unvaccinated people.

### **Conclusion**

Tubercular lymphadenitis is a common disease in cervical region. It is now rare in developed countries. It is more common in children and adolescent age group. Jugulodigastric nodes were

more affected. It was not secondary to pulmonary tuberculosis. Female were affected more than male and non-vaccinated people suffers more. .

### **References**

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