

# PATTERN OF TUBERCULOUS LYMPHADENITIS: THE ISRA UNIVERSITY HOSPITAL EXPERIENCE

Gul Muhammad Sheikh and Abdul Samad

## ABSTRACT

**OBJECTIVE:** To determine the commonest group and features of lymph nodes affected in tuberculous lymphadenitis at our set up.

**DESIGN:** A descriptive study.

**SETTING:** Isra University Hospital, Hyderabad over a period of three years.

**Methods:** The data of 180 consecutive patients visiting the outpatients department with lymph node enlargement was collected. The data was collected and analyzed with special reference to location, number and characteristics of lymph nodes involved.

**RESULTS:** Out of 180 patients, 151 were found to be eligible according to the selection criteria. About 81.5% of the patients had involvement of multiple lymph nodes whereas single lymph node group was involved in 84.8% of the patients. Cervical group of lymph nodes was affected in about 68.9% of the patients making this group to be the commonest group affected by tuberculous lymphadenopathy. About 68.2% of the patients had matted lymph nodes whereas discrete lymph nodes were found in only 17.2% of the patients.

**CONCLUSION:** Multiple lymph nodes are involved in most of the patients having tuberculous lymphadenitis in our set up and in majority of the patients, only one group of lymph nodes is affected by the tuberculous lymphadenitis.

**KEY WORDS:** Tuberculosis. Lymph node. Location.

## INTRODUCTION

Tuberculosis is one of the earliest diseases known to mankind. The mummified bodies of the Egyptians have also revealed definitive evidence of tuberculosis of bones and joints as early as 3700 B.C. Hippocrates used the term "*Phthisis*" for tuberculosis in 430 B.C. *Phthisis* is a Greek word meaning "to decay, to waste away or to shrivel up". Chinese literature also mentions the term "*Loaping*" for tuberculosis. Gaspard Laurent Bayp (1774-1816) has been mentioned as the person to use term "Tuberculosis" for the first time<sup>1</sup> whereas Schonlein (1839) is also credited for the same by some researchers<sup>2</sup>. Controversy also exists regarding the discovery of causative organism. Robert Koch (1882)<sup>1,3</sup> is usually considered to be the person to discover *Mycobacterium Tuberculosis* whereas Bolinger (1866-1979)<sup>4,5</sup> is also credited for the same by some researchers.

Tuberculosis is a chronic granulomatous and communicable disease caused by the organism *Mycobacterium Tuberculosis*. This disease usually involves the lungs but may involve the other organs and systems. The commonly involved extra-pulmonary sites are lymph node, gastrointestinal tract, bone, joint, urogenital system and meninges etc.

This study looks into the commonest group as well as the characteristics of lymph nodes affected by tuberculosis in our set up.

## PATIENTS AND METHODS

This descriptive study was conducted at Isra University Hospital, Hyderabad with convenient sampling strategy. The data was collected during the period between 1<sup>st</sup> July 2001 and 30<sup>th</sup> June 2004. In all, 180 consecutive patients visiting the outpatients department were studied.

The selection criteria included lymph node enlargement of more than six weeks duration, shorter history of lump but strong clinical suspicion of tuberculosis, no clinical suspicion of malignancy, no focus of acute inflammation and histopathological diagnosis of non-tuberculous pathology. Every patient underwent a detailed examination with special reference to the exact location, number and characteristics of lymph nodes involved. All patients underwent histopathological examination of lymph nodes. The results were analyzed to find out the pattern of tuberculous lymphadenitis.

## RESULTS

Out of 180 patients studied, 29 had non-tuberculous pathology on histopathological examination and were excluded from the study. In the final analysis of 151 patients, most of the patients had involvement of

multiple lymph nodes whereas only 28 patients had solitary lymph node involvement. Most of the patients had only one group of lymph nodes involved whereas two or more groups of lymph nodes were found to be involved in only 23 patients. Most of the patients had unilateral lymph node involvement (**Table I**). Cervical lymph nodes were found to be predominantly involved (**Table II**). Other involved groups of lymph nodes included axillary and inguinal groups of lymph nodes. About two-third of the patients had matted lymph nodes whereas 17% of the patients were found to be having discrete lymph nodes (**Table III**). Some patients presented with cold abscess and few patients had discharging sinus.

Involved side	Number of patients (%)
Right side	72 (47.7%)
Left side	63 (41.7%)
Bilateral	16 (10.6%)

**TABLE I: SIDE OF THE BODY AMONG AFFECTED PATIENTS (n=151)**

Involved group	Number of patients (%)
Cervical	104 (68.9%)
Axillary	15 (9.9%)
Inguinal	9 (6%)
Cervical + Inguinal	6 (4%)
Axillary + Inguinal	8 (5.3%)
Cervical+Axillary+Inguinal	9 (6%)

**TABLE II: GROUP OF LYMPH NODES INVOLVED IN TUBERCULOUS LYMPHADENITIS PATIENTS**

Characteristic	Number of patients (%)
Discrete	26 (17.2%)
Matted	103 (68.2%)
Cold abscess	19 (12.6%)
Discharging sinus	3 (2%)

**TABLE III: CHARACTERISTICS OF LYMPH NODES INVOLVED IN TUBERCULOUS LYMPHADENITIS**

### DISCUSSION

Peripheral lymphadenopathy is considered as the commonest form of extra-pulmonary tuberculosis<sup>6, 7</sup>. Tuberculous lymphadenitis has got a broad spectrum

of presentation in the form of solitary or multiple lymph node enlargements, which may be matted or discrete and may involve any group or may present as a cold abscess or discharging sinus. This spectrum is observed in this study as well as other studies<sup>8-10</sup>. Most of the patients in our study had matted lymph nodes and this was also seen in another study<sup>9</sup>. About 2% of the patients presented with discharging sinus and this rarity is also observed in other studies<sup>10</sup>. Cervical group of lymph nodes is considered to be the commonest site involved by tuberculous lymphadenitis. In this study, about 69% of the patients were found to be having cervical tuberculous lymphadenitis and this fact was observed in other studies as well<sup>11</sup>. The isolated axillary tuberculous lymphadenitis is relatively less common. This was found in about 10% of the patients and is consistent with findings seen in another study<sup>8</sup>. The generalized lymphadenopathy was observed as an uncommon feature of tuberculous lymphadenopathy in most of the studies<sup>12</sup> and was seen in about 6% of the patients in this study. Other uncommon sites of tuberculous lymphadenopathy seen in various studies include mesenteric<sup>13</sup>, porta hepatis<sup>14, 15</sup> and retroperitoneal lymph nodes<sup>16</sup> etc. These rare sites were not observed in this study.

### CONCLUSION

On the basis of this study, we arrive at following conclusions:

1. Multiple lymph nodes are involved in most of the patients having tuberculous lymphadenitis.
2. In majority of the patients, only one group of lymph nodes is affected by the tuberculous lymphadenitis.
3. The commonest group of lymph nodes affected by tuberculosis is cervical group of lymph nodes.
4. Matting of the lymph nodes is a predominant feature of tuberculous lymphadenitis.
5. Most of the patients have unilateral tuberculous lymphadenitis in our set up.

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*AUTHOR AFFILIATION:*

**Dr. Gul Muhammad Sheikh**

**Department of Surgery**

**Isra University Hospital, Hyderabad, Sindh – Pakistan**

**Dr. Abdul Samad** (*Corresponding Author*)

**Assistant Professor, Department of Surgery**

**Isra University Hospital, Hyderabad, Sindh – Pakistan**

**E-mail: [abdulsamad@email.com](mailto:abdulsamad@email.com)**