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Research Article

**INCIDENCE OF TUBERCULOSIS IN PATIENTS OF  
CERVICAL LYMPHADENOPATHY**<sup>1</sup>Dr. Amna Shehzad, <sup>2</sup>Dr. Neelam Nageen, <sup>3</sup>Dr. Hassan Ahmad<sup>1</sup>Allama Iqbal Medical College, Lahore, <sup>2</sup>Fatimah Jinnah Medical College, Lahore, <sup>3</sup>Shareef Medical and Dental College, Lahore.**Article Received:** December 2018**Accepted:** February 2019**Published:** March 2019**Abstract:*****Objective:** To evaluate the incidence of tuberculosis in cervical lymphadenopathy patients.****Study design:** A Prospective descriptive study.****Place and Duration:** In the TB and Chest medicine Department in collaboration with Surgical department of Jinnah Hospital, Lahore for one-year duration from October 2017 to October 2018****Methodology:** All cervical patients who attended outpatient department were included in the study. The clinical examination, detailed history, erythrocyte sedimentation rate (ESR), excisional biopsy, whole blood table, chest radiography and Mantoux test (MT) were performed in every patient. The data were collected in a predefined Performa.****Results:** 60 patients were selected for the analysis and 1: 0.7 was the female / male ratio. The most common clinical picture was painless multiple swelling (79%), others were sinus secretion, abscess, weight loss and pyrexia. Of the patients, 42 (70%) had tuberculosis, and 02 (3.33%) had squamous cell carcinoma, 03 lymphoproliferative disorder (05%) and Kikuchi disease in 1 (1.66%) patients.****Conclusion:** It is concluded that the most common cause of cervical lymphadenopathy in our setup is Tuberculosis.****Key words:** FNAC, Tuberculosis, Cervical lymphadenopathy.***Corresponding author:****Dr. Amna Shehzad,**

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**INTRODUCTION:**

In surgical practice, cervical lymphadenopathy is a usual presentation and is usually an important indicator of the underlying specific clinical syndrome or pathological process, since neoplastic or inflammatory cervical lymphadenopathy is often defined as cervical lymph node tissue 1 cm in diameter [1]. The tuberculous lymphadenitis occurs most commonly after Chronic lymphadenopathy and most commonly occurs here. In Pakistan and other developing countries, tuberculous lymphadenitis is the most common form of extrapulmonary tuberculosis observed in our setup [2]. In contrast, there is a different manifestation of the western world, malignant metastatic pathology is the most common pathology. Recent advances in medical care facilities have been made and the use of effective antituberculosis chemotherapy has led to a decrease in the tuberculosis incidence, particularly in few developing countries and some fully developed countries [3]. Although pulmonary tuberculosis was reduced in the Western world, the tuberculous lymphadenitis incidence does not decrease [4]. The purpose of this analysis was to determine the tuberculosis incidence in cervical lymphadenopathy patients.

**MATERIALS AND METHODS:**

A prospective descriptive study was performed in the TB and Chest medicine Department in collaboration with Surgical department of Jinnah Hospital, Lahore for one year duration from October 2017 to October 2018. The patients presented to the outpatient clinic with cervical lymphadenopathy and their clinical examination, detailed history, erythrocyte sedimentation rate (ESR), whole blood imaging, chest radiography and Mantoux test (MT) were performed in every patient. Neck ultrasound was performed to the selected patient. FNAC was confirmed by excisional or incisional biopsy. All patients with primary focus, except for tuberculosis, were excluded from the study. The data were collected in a pre-designed performance.

**RESULTS:**

60 total patients were selected for the study. There were 25 males and 35 females (female / male ratio 1: 0.7). 32.9 years (14-70 years) was the patients mean age.

The most common clinical picture was painless multiple swelling over neck (80%) and other complex forms of tuberculosis because the secretion sinuses and abscess were present in 19% of the patients. In table 1, Clinical presentations are given.

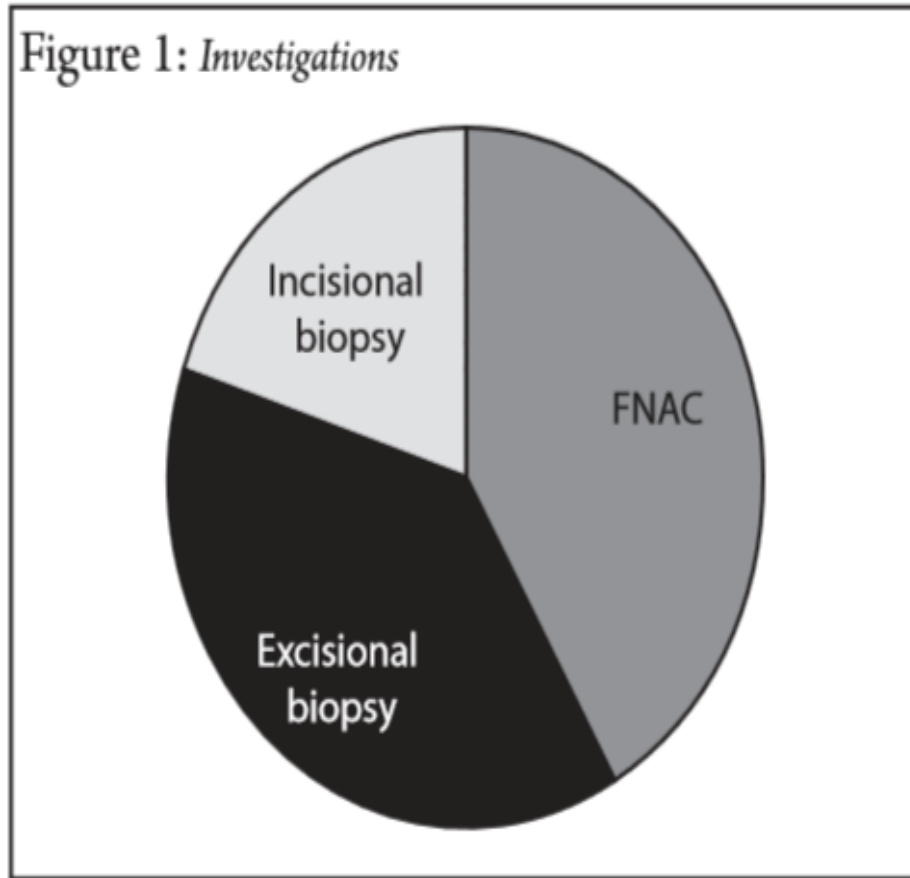
**Table 1: Clinical Presentation**

<b>Clinical Presentation</b>	<b>Number of Patients</b>	<b>Percentage</b>
Neck Swelling	48	80
Abscess	10	16.7
Discharging Sinus	2	3.33
Pyrexia	35	58.3
Weight loss	17	28.3

05 patients had a history of Pulmonary Koch disease and 08 patients had a history of contact. Physical examination revealed pallor in 19 patients. No other significant anomaly was detected in the systemic test. In 11 patients, Anemia was detected with 11.04 g / dl mean Hemoglobin on laboratory examinations, while

ESR increased more than 20 mm in 54 patients in the first hour.

Figure 1 shows the number of patients who confirm the diagnosis by various other investigations. In 8 patients (13%), FNAC was inadequate who were further evaluated by incisional / excisional biopsy.



In 42 patients; Tuberculosis infection was confirmed and other pathologies were shown in Table 2.

**Table 2: Different diagnosis confirmed on Cytology or Histopathology**

Diseases	Number of Patients	Percentage
Tuberculosis	42	70
Squamous Cell Carcinoma	02	3.33
Lymphoproliferative disorders	03	05
Kikuchi disease	01	1.66
Nonspecific inflammation	12	20

All patients diagnosed with tuberculosis were treated with antituberculous therapy (ACT). A total symptom resolution was found in 38 patients, 1 patient did not accept it and 3 patients were followed up with recurrent abscess after 6 months.

#### DISCUSSION:

As human immunodeficiency syndrome increases, the world is confronted with the resurrection of tuberculosis. Unfortunately, even before the age of HIV infection in our country, we could not eliminate tuberculosis<sup>5</sup>. This is an endemic problem in our

world and we still see pulmonary and extrapulmonary tuberculosis. According to the 2009 World Health Organization's 2009 report, Pakistan is eighth among the 22 most loaded countries in the world<sup>6</sup>. Cervical lymphadenopathy is a manifestation of various diseases ranging from benign to malignant. Peripheral lymphadenopathy, especially cervical lymphadenopathy, is a common form of extrapulmonary tuberculosis<sup>7-9</sup>.

In our study, 70% of patients were diagnosed with tuberculosis infection with FNAC or excisional biopsy and reported an incidence of 69%. N Choudury reported cervical adenitis in 58% of all tuberculosis patients<sup>10-12</sup>. In another study, although tuberculosis was the main cause of lymphadenopathy, although the overall incidence was lower than in our study, this inequality may be due to differences in selection and sampling of patients. Local reference FNAC is a safe alternative to excisional biopsy and should only be recommended as first-line and excisional biopsy if FNAC results are negative<sup>13</sup>. We followed this principle in our study and found that the accuracy of the FNAC was 77%. Presentation of patients with cervical lymphatic adenitis, sinus secretion of the abscess of the neck, abscesses of the neck, solitary or dilution of multiple lymph nodes, may be entangled or separated<sup>14</sup>. Complex forms of tuberculous lymphadenitis are rarely seen, with better information and diagnostic facilities. In our study, about 41% of our patients had swelling in the neck, 18.5% of abscesses in the neck and 3% of sinus secretion. A similar structure is observed in other studies<sup>15</sup>. This can be compared to a regional study reporting neck inflammation in 71%, abscess in 12.6% and sinus secretion in 2%.

All patients completed antituberculosis treatment, only one patient had recurrent abscess formation and these were mostly due to incompatibility.

### CONCLUSION:

In our setup, the most common cause of cervical lymphadenopathy is Tuberculosis. Other common causes of cervical lymphadenopathy are nonspecific inflammation, lymphoproliferative disorders and squamous cell carcinoma.

### REFERENCES:

1. Batikhe, Mohamed Y., and Tarek T. Harb. "Surgical causes of neck masses in pediatrics: management and outcome." *International Surgery Journal* 6, no. 2 (2019): 503-507.
2. Jansson, Moritz K., Hilte F. Geerdes-Fenge, Antje Kangowski, Christian Kneitz, and Emil C. Reisinger. "Tuberculosis and Takayasu arteritis: case-based review." *Rheumatology international* 39, no. 2 (2019): 345-351. Jansson,

- M. K., Geerdes-Fenge, H. F., Kangowski, A., Kneitz, C., & Reisinger, E. C. (2019). Tuberculosis and Takayasu arteritis: case-based review. *Rheumatology international*, 39(2), 345-351.
3. Chang, Jinsoo, and Mun Cheol Kim. "Incidental Diagnosis of Primary Tuberculosis of the Palatine Tonsil in a Patient With Nasal Obstruction and Snoring." *Journal of Medical Cases* 10, no. 1 (2019): 27-29.
4. Dangore Khasbage, Suwarna, and Arvind S. Bhake. "Cervical lymphadenopathy in a dental patient: An eye opener case report." *Special Care in Dentistry* 39, no. 1 (2019): 59-64.
5. Sato, Jun, Tatsunori Shimoi, Akihiko Shimomura, Emi Noguchi, Makoto Kodaira, Mayu Yunokawa, Kan Yonemori et al. "The Incidence of Nonmalignant Diseases among Patients with Suspected Carcinoma of Unknown Primary Site." *Internal Medicine* (2019): 1118-18.
6. Krishna, Malla Rama, Uma Sri Gottam, and Nagendra Mahendra. "Disseminated tuberculosis with severe immune thrombocytopenia." *Respiratory Medicine Case Reports*(2019).
7. Chen, Steven T., Alexis M. Cahalane, Edward T. Ryan, and Ruth K. Foreman. "Case 2-2019: A 36-Year-Old Man with Rash, Abdominal Pain, and Lymphadenopathy." *New England Journal of Medicine* 380, no. 3 (2019): 275-283.
8. Rehman, S., Munir, M. K., Iqbal, R., & Saeed, S. (2019). Pattern, Diagnosis and Treatment Outcome of Extra Pulmonary Tuberculosis. *Pakistan Journal of Chest Medicine*, 24(3), 147-151.
9. Roe, Wendi D., Baukje Lenting, Anna Kokosinska, Stuart Hunter, Pdraig J. Duignan, Brett Gartrell, Lynn Rogers et al. "Pathology and molecular epidemiology of Mycobacterium pinnipedii tuberculosis in native New Zealand marine mammals." *PloS one* 14, no. 2 (2019): e0212363.
10. Cruz, Andrea T., and Jeffrey R. Starke. "Nontuberculous Mycobacterial Disease in Pediatric Populations." In *Nontuberculous Mycobacterial Disease*, pp. 439-463. Humana Press, Cham, 2019.
11. Silva, Francisco Carlos da, Gabriel Antonio Nascentes, Antonio Carlos Oliveira Meneses, and Dalmo Correia Filho. "Agreement between diagnostic imaging methods for the evaluation of lymphadenopathies in HIV-infected/AIDS patients." *Radiologia Brasileira AHEAD* (2019).
12. Briquet, Anaïs, Rithy Vong, Jean-Baptiste Roseau, Emilie Javelle, Nicolas Cazes, Frédéric

- Rivière, Marc Aletti et al. "Clinical features of Mycobacterium canettii infection: a retrospective study of 20 cases among French soldiers and relatives." *Clinical Infectious Diseases* (2019).
13. Mengar, Manas, Pranav Ish, and Shibdas Chakrabarti. "Disseminated lymphadenopathy: Time is the best diagnostician." *Indian Journal of Medical Specialities* 10, no. 1 (2019): 50.
  14. Wan, Marilyn T., Drew A. Torigian, Abass Alavi, Judith Alvarez, Zelma C. Chiesa Fuxench, Megan H. Noe, Maryte Papadopoulos et al. "Prevalence of clinically significant incidental findings by whole-body FDG-PET/CT scanning in moderate-to-severe psoriasis patients participating in clinical trials." *Journal of the American Academy of Dermatology*(2019).
  15. Venturini, Elisabetta, Carlotta Montagnani, Antonio Boldrini, Marco Moroni, Elena Chiappini, Maurizio de Martino, and Luisa Galli. "Congenital tuberculosis after in vitro fertilization presenting with endobronchial granuloma." *Pediatrics & Neonatology* 60, no. 1 (2019): 105-107.