CODEN [USA]: IAJPBB ISSN: 2349-7750

INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES

http://doi.org/10.5281/zenodo.1484478

Available online at: http://www.iajps.com Research Article

A DESCRIPTIVE RESEARCH TO ASSESS THE TUBERCULOSIS (TB) INCIDENCE IN CERVICAL LYMPHADENOPATHY THROUGH VARIOUS DIAGNOSTIC TOOLS

[1]Dr. Rabia Basri, [1]Dr Mohammad Ahmed Awan, [2]Dr Muhammad Izhar

[1]House Officer, Allied Hospital Faisalabad

[2]Medical Officer, Basic health Unit 60/WB, Vehari

Abstract:

Objectives*: We aimed to identify tuberculosis (TB) incidence in the features of patients and cervical lymphadenopathy.*

Methodology: *We conducted this descriptive research at Sir Ganga Ram Hospital, Lahore from March 2016 to August 2017 at Surgical Unit. We included both male and female of more than twelve years of age diagnosed with cervical lymphadenopathy. Lymph Nodes FNAC (Fine Needle Aspiration Cytology) and excision biopsy performed in all the patients besides physical assessment, ESR, detailed history and haematological assessment.*

Results: *Our research included total 180 enlarged lymph nodes patients from the male and female population. A total of 124 patients (68.88%) were in the age group of under thirty years; whereas, remaining 56 patients (32.22%) were more than the age of thirty years with tuberculosis (TB) lymphadenitis incidence in 137 patients (76.11%). The researcher also reported reactive hyperplasia in 21 patients (11.66%), non-specific chronic lymphadenitis in 16 patients (8.88%), non-specific chronic lymphoma in 05 patients (2.77%) and cervical lymph nodes metastasis in one case (0.55%). Raised ESR and FNAC values were respectively 26.66% and 87.77%. A maximum number of the patients were related to the poor stature of the society (119 patients). The research included 97 males (53.8%) and 83 females (46.2%) with a dominance of male population over female population. Majority of the patients (14%) presented constitutional symptoms with mostly repeated lymphadenopathy site were posterior neck triangle, eight bilateral and five submandibular enlarged lymph nodes cases. About 76.11% patients reported for the repeated incidence of tuberculosis cervical lymphadenopathy. The effectiveness of the FNAC tool confirmed in 87.77% with 36 patients having raised ESR (26.27%) having cervical lymphadenopathy TB through chest X-Ray in five patients (3.64%). An uncommon history was found in 137 patients; whereas, 119 cases were of poor status (86.86%).*

Conclusion: *Most involved disease in the incidence of Lymph Nodes was Tuberculosis (TB) in males and females especially from the lower socioeconomic circle of society. Haematological outcomes were not confirmed in a number of FNAC patients; whereas, few of the patients also required lymph node biopsy.*

Keywords: *Chronic, Non-Specific, Tuberculosis (TB), Lymphadenopathy, Cervical and Nodes.*

Corresponding author:

Dr. Rabia Basri,

House Officer,
Allied Hospital,
Faisalabad

QR code

Please cite this article in press Rabia Basri et al., ***A Descriptive Research to Assess the Tuberculosis (TB) Incidence in Cervical Lymphadenopathy through Various Diagnostic Tools.,*** *Indo Am. J. P. Sci, 2018; 05(11).*

INTRODUCTION:

Among various common conditions, the neck mass presence is also common that relates to the enlargement of the lymph nodes [1]. TB caused the presence of the majority of the enlarged cervical lymph nodes [2]. It is a therapeutic and diagnostic challenge as related pathological states also mimic and there is also the yield of inconsistent laboratory and physical outcomes. There is a need for the detailed physical assessment, acid-fast bacilli staining (FB), PCR and FNAC; which are very much helpful in the difficult and early diagnosis which sometimes needs biopsy [3 – 6]. The various common presentations is swelling of the neck, unexplained low-grade fever, non-healing ulcer, discharging sinus and weight loss.

The cervical lymphadenopathy diagnosis was made through PCR, FNAC and ESR in order to detect Mycobacterium tuberculosis lymphadenitis [7]. There is also a co-existence of the squamous cell carcinoma, Lymphoma and metastasis in the papillary thyroid cancer with enlarged cervical lymph nodes [8]. Therefore, we aimed to identify tuberculosis (TB) incidence in the features of patients and cervical lymphadenopathy.

METHODOLOGY:

We conducted this descriptive research at Sir Ganga Ram Hospital, Lahore from March 2016 to August 2017 at Surgical Unit. We included both male and female of more than twelve years of age diagnosed with cervical lymphadenopathy. Lymph Nodes FNAC (Fine Needle Aspiration Cytology) and excision biopsy performed in all the patients besides physical assessment, ESR, detailed history and haematological assessment. We aimed to report age, sex and socioeconomic distribution in cervical lymphadenopathy tuberculosis patients. We did not include any case with previously diagnosed ruptured abscess and chronic discharging sinuses. An analysis and comparison of the outcomes were also carried out.

RESULTS:

Our research included a total 180 enlarged lymph nodes patients from the male and female population. A total of 124 patients (68.88%) were in the age group of under thirty years; whereas, remaining 56 patients (32.22%) were more than the age of thirty years with tuberculosis (TB) lymphadenitis incidence in 137 patients (76.11%). The researcher also reported reactive hyperplasia in 21 patients (11.66%), non-specific chronic lymphadenitis in 16 patients (8.88%), non-specific chronic lymphoma in 05 patients (2.77%) and cervical lymph nodes metastasis in one case (0.55%). Raised ESR and FNAC values were respectively 26.66% and 87.77%. A maximum number of the patients were related to the poor stature of the society (119 patients). The research included 97 males (53.8%) and 83 females (46.2%) with a dominance of male population over female population. Majority of the patients (14%) presented constitutional symptoms with mostly repeated lymphadenopathy site were posterior neck triangle, eight bilateral and five submandibular enlarged lymph nodes cases. About 76.11% patients reported for the repeated incidence of tuberculosis cervical lymphadenopathy. The effectiveness of FNAC tool confirmed in 87.77% with 36 patients having raised ESR (26.27%) having cervical lymphadenopathy TB through chest X-Ray in five patients (3.64%). An uncommon history was found in 137 patients; whereas, 119 cases were of poor status (86.86%).

Table – I: Incidence of Various diseases cervical lymphadenopathy (180)

Diseases	Tuberculosis Lymphadenopathy	Reactive Hyperplasia	Chronic Non-specific Lymphadenitis	Lymphoma	Metastasis to Cervical Lymph Nodes
Number	137	21	16	5	1
Percentage	76.11	11.67	8.89	2.78	0.55

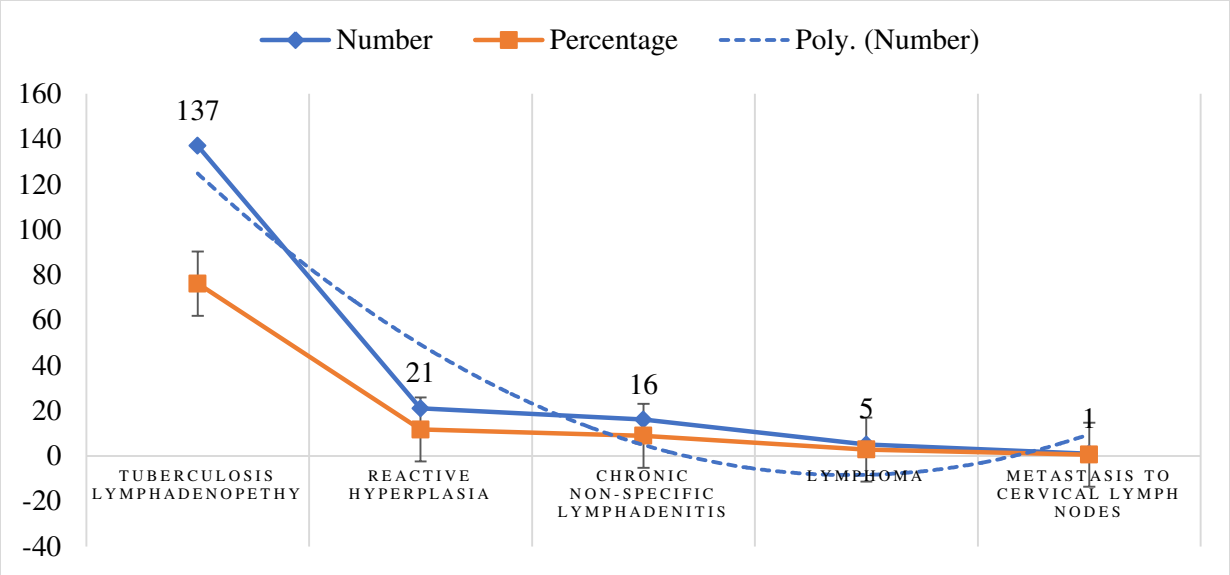


Table – II: Age & sex distribution of patients in cervical lymphadenopathy (180)

Characteristics		Number	Percentage
Age of Patients	< 30 Years	124	68.88
	> 30 Years	56	31.12
Sex of Patients	Male	97	53.88
	Female	83	46.12

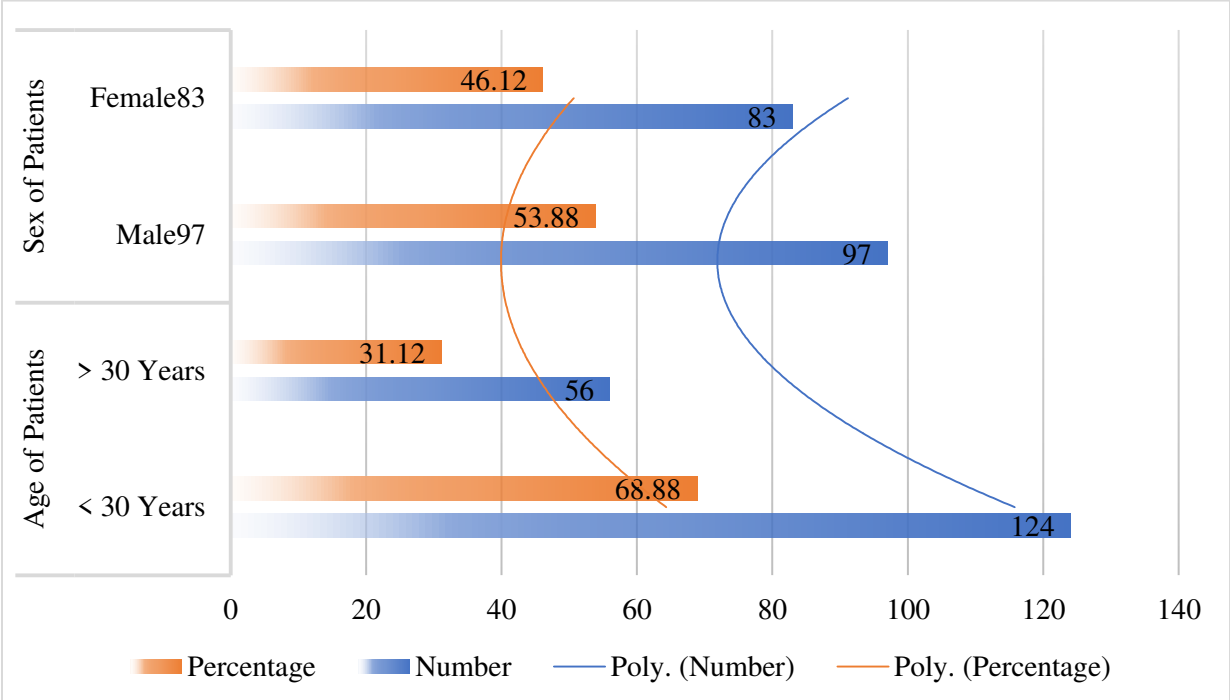
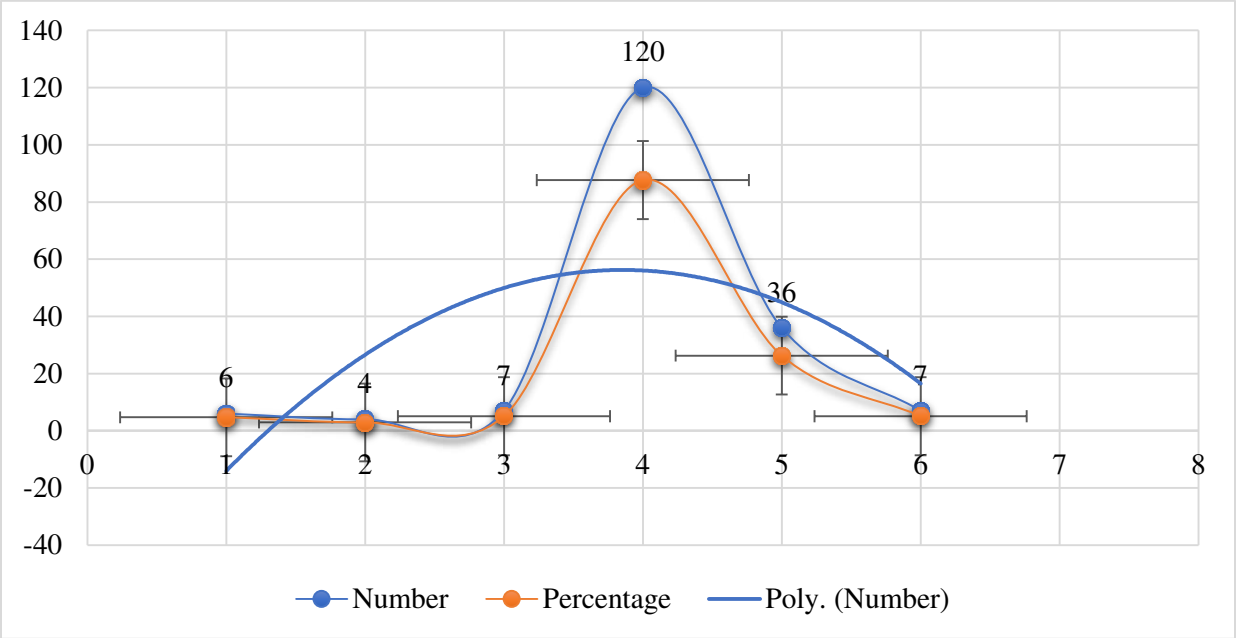


Table – III: Constitutional symptoms and investigation in tuberculosis cases (137)

Symptoms	Number	Percentage
Pain	6	4.70
Fever	4	2.91
Weight Loss	7	5.10
FNAC	120	87.67
ERS	36	26.27
Chest X-Ray	7	5.10



DISCUSSION:

There is a multiple enlarged lymph node, decreased constitutional signs and tuberculosis (TB) presence as healthcare issues in tuberculosis (TB) cervical lymphadenopathy [9]. It is also among numerous repeated infection reasons which affect bodily lymphatic tissues [10]. There are higher doubt ratios in the disease diagnosis with pathological and haematological disease investigations that are diagnosable through PCR and FNAC; there are chances of false diagnosis through FNAC in case there is no improvement in the patients through drug therapy which makes excision biopsy important [11]. Majority of the patients had an absence of the family history; whereas, 13 years to 30 years (68.8%) of age patients had an increased involvement with a predominance of the male population (53.8%). There was also an increased involvement of the upper deep jugular nodes in discharging sinus, posterior triangle and abscess formation; which were excluded from the research study. About 3.64% of cases were positive for chest radiography. An Indian research reported the dominance of female population which is not similar to other studies; whereas, in terms of radiological outcomes and age distribution as reported in other International research studies [12, 13].

Another author reported the cervical lymphadenopathy cause as tuberculosis lymphadenitis in fifty-four percent of the patients which is a bit lower than our reported outcomes of 76.11%, 33% reactive hyperplasia and 11.1% metastatic lymph nodes than 2.77% and 11.66% as reported in our research. Maharjan reported the effectiveness of FNAC in 94% of the cases which is closer to the outcomes of our research 87.2% [14]. There was a diagnostics accuracy of (87.2%) which is more than the outcomes of various other research studies [15]. In order to diagnose an enlarged cervical lymph node; doubtful cases need a diagnosis of the excision biopsy [16].

CONCLUSION:

There is an increased tuberculosis (TB) incidence in the cervical lymphadenopathy cases especially in young's including both male and females with a special occurrence in the lower social societal groups. There is a limited role of chest X-Ray and ESR; doubtful cases need a diagnosis of the excision biopsy. Most involved disease in the incidence of Lymph Nodes was Tuberculosis (TB) in males and females especially from the lower socioeconomic circle of society. Haematological outcomes were not confirmed in a number of FNAC patients; whereas, few of the patients also required lymph node biopsy.

REFERENCES:

1. Yuan J, Li XH; Evaluation of pathological diagnosis using ultrasonography-guided lymph node Chin Med J (Engl). 2010 20;123(6):690-4.
2. Agarwal AK, Sethi A, Sethi D, Malhotra V, Singal S. Tubercular cervical adenitis: clinic pathologic analysis of 180 cases. J Otolyrangol Head Neck Surg. 2009; 38:521-5.
3. Zaatar R, Biet A, Smail A, Strunski V, Page C. Cervical lymph node tuberculosis: diagnosis and treatment. Ann Otolaryngol Chir Cervicofac.2009;126:250-5.
4. Maharjan M, Hirachan S, Kafle PK, Bista M, Shrestha S, Toran KC, et al. Incidence of tuberculosis in enlarged neck nodes, our experience. Kathmandu Univ Med J. 2009; 7:54-8
5. Sun HB, Zheng XF, Zhang J. Diagnostic accuracy of fine needle aspiration biopsy of the cervical lymph node: a study of 580 cases. Zhonghua Bing Li Xue Za Zhi 2008; 37:693-7.
6. Choi EC, Moon WJ, Lim YC. Tuberculous cervical lymphadenitis mimicking metastatic lymph nodes from papillary thyroid carcinoma. Br J Radiol 2009; 82:208-11.
7. Savage SA, Wotherspoon HA, Fitzsimons EJ, MacKenzie K. Cervical lymphadenopathy Resulting in a diagnosis of lymphoma. Scott Med J 2008; 53:13-6.
8. Mohapatra PR, Janmeja AK. Tuberculous lymphadenitis. J Assoc Physicians India.2009;57:585-90.
9. Gheriani H, Hafidh M, Smyth B, O'Dwyer T. Coexistent cervical tuberculosis and metastatic squamous cell carcinoma in a single lymph node group: a diagnostic dilemma. Ear Nose Throat J 2006; 85:397
10. Gilbert RL, Antoine D, French CEl; The impact of immigration on tuberculosis rates in the United Kingdom compared Int J Tuberc Lung Dis. 2009;13(5):645-51.
11. Zeshan QM, Mehrukh M, Shahid P. Audit of lymph node biopsies in suspected cases of lymphoproliferative malignancies, implications on the tissue diagnosis and patient management. J Pak Med Assoc 2000; 50:179-82.
12. Chau I, Kelleher MT, Cunningham D, l. Rapid access multidisciplinary lymph node diagnostic clinic: analysis of 550 Br J Cancer.2003;88(3):354-61.
13. Afridi SP, Beg MA, Memon F. Presentation of enlarged lymph nodes. J Surg Pakistan 2005; 10:41-3.
14. Baatenburg RJ, Rongen RJ, Verwoerd CD, Vanover Hagen H, Lameris JS, Knegt P. Ultrasound-guided fine-needle aspiration biopsy of neck nodes. Arch Otolaryngol Head Neck Surg 1991; 117:402-4.
15. Moor JW, Murray P, Inwood J, l. Diagnostic biopsy of lymph nodes of the neck, axilla and groin. Ann R Coll Surg Engl. 2008; 90(3):221-5.
16. Slap GB, Brooks JS, Schwartz JS. When to perform biopsies of enlarged peripheral lymph nodes in young patients. JAMA 1984; 252:1321-6.