

ETIOLOGICAL FACTORS, CLINICAL PRESENTATIONS AND TREATMENT OUTCOME OF CERVICAL LYMPHADENOPATHY: AN OBSERVATIONAL DESCRIPTIVE STUDY

Satish R Sonawane¹, Khilchand Dilip Bhangale², Bhushan Anil Shah³

¹Associate Professor, ²Assistant Professor, Department of Surgery, Rural Medical College, PIMS (DU) Loni, Maharashtra, India. ³Professor, Department of Surgery, Dr D Y Patil Medical College Pune, Maharashtra, India.

ABSTRACT

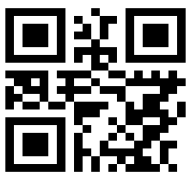
Aim: To study various etiological factors, clinical presentations of cervical lymphadenopathy. To study the management and outcome of cervical lymphadenopathy **Method:** Proper clinical history was first noted, local and systemic examination was performed and a clinical diagnosis was made. Gender wise distribution, presenting symptoms, site distribution, and treatment outcome were noted. **Result:** Gender wise distribution of male and female was 52%, and 48%, commonest site of primary in cases of metastatic Secondaries was tongue followed by oesophagus and thyroid. After proper diagnosis confirmed by Histopathology (biopsy), treatment constituted properly- Cases of Tubercular Lymphadenitis (49 cases) were Started on Anti-tubercular treatment, all were showed improvement in symptoms. Cases of Reactive lymphadenitis (26 cases) started on antibiotics, all recovered well. Among 14 Cases of Metastatic secondaries, 5 cases were given Chemotherapy/Radiotherapy after expert oncologist opinion out of which 3 showed improved symptoms and 2 were expired, 6 cases were operated out of which 5 showed improved symptoms and 1 expired post operatively, 3 cases were referred to specialized oncological and oncosurgical center for further management. All 6 Lymphoma cases were started on chemotherapy after expert oncologist opinion showed improvement in symptoms. **Conclusion:** Commonest site of primary in cases of metastatic Secondaries was tongue followed by oesophagus and thyroid. Anti-tubercular treatment for tubercular lymphadenitis was highly satisfactory with improvement in almost all patients. Surgery was restricted as an adjuvant to chemotherapy, as diagnostic biopsy, for treatment of abscess/sinuses and for a lymph nodes that do not resolve with chemotherapy. Non-tuberculous non-neoplastic lesions can be best managed by conservatively.

KEYWORDS: Cervical lymphadenopathy; Clinical presentations; Treatment outcome.

INTRODUCTION

Cervical lymphadenopathy (CLA) is a common problem in clinical practice which poses diagnostic difficulties to clinicians [1]. Lymphadenopathy refers to any disease process involving lymph nodes that are abnormal in size and consistency. Multiple etiologies factors can cause cervical lymphadenopathy, the most common of which are neoplasia, autoimmune diseases, infection and other disorders like Castleman's disease, sarcoidosis, dermatopathic lymphadenitis, histiocytic necrotizing lymphadenitis, sinus histiocytosis with massive lymphadenopathy, Mucocutaneous lymph node syndrome (Kawasaki's disease) [2]. Lymphadenopathy might be caused by proliferation of cells intrinsic to the node, such as, plasma cells, lymphocytes histiocytes and mon-

ocytes, or infiltration of cells extrinsic to the node, as with neutrophils and malignant cells [3]. Clinical presentation generally recurrent fever 38.5>, night sweat, weight loss and splenomegaly. Most clinicians treat cervical lymphadenopathy conservatively [4,5]. The treatment is often given before biopsy or aspiration is performed. This practice may result in unnecessary prescription of antimicrobials. However, the risks of surgery often outweigh the potential benefits of a brief course of antibiotics [6]. Most enlarged lymph nodes are caused by an infectious process. If aspects of the clinical picture malignancy, such as weight loss, recurrent fever, biopsy should be done sooner for accurate diagnosis [6, 7, 8]. Superior vena cava syndrome requires emergency care, including chemotherapy and possibly radiation therapy. Fine needle aspiration cytology (FNAC), a simple and precise diagnostic procedure, used to differentiate between benign and malignant peripheral lymphadenopathy. FNAC, as it is obtained easily and quickly which is simple and cheap and requires only a specialist input.



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Correspondence: Satish R Sonawane, Associate professor, Department of Surgery, Rural Medical College, PIMS (DU) Loni, Maharashtra, India. Email: satishujwal@yahoo.com

Aims & Objective: To study various clinical presentations of cervical lymphadenopathy. To study the management and outcome of cervical lymphadenopathy

MATERIALS AND METHOD

Study design: An observational descriptive prospective study

Ethics approval: The study was approved by the Institutional ethics committee The Fine Needle Aspiration Cytology (FNAC) procedure was explained to the patient in their own vernacular language and written informed consent was taken.

Study setting: Pravara Institute of Medical Sciences

Study duration: 2 years

Sample size: 100 consecutive samples were included as per inclusion and exclusion criteria

Inclusion criteria: All cervical lymphadenopathy patients between 15 – 40 years of age.

Exclusion criteria: Previously diagnosed cases and cases already undergoing Anti-tubercular treatment or anti-Retroviral treatment, post- radiotherapy were excluded from the study

Methodology:

Proper clinical history was first noted, local and systemic examination was performed and a clinical diagnosis was made. Gender wise distribution, presenting symptoms, site distribution, and treatment outcome were noted. The reactive lymphadenitis were adequately managed with antibiotics, anti-inflammatory and local treatment. The malignant secondaries and lymphomas were staged and treated as per accepted protocols. For cases like Carcinoma Larynx and unknwn primary were referred to specialised oncological centers for further management. For all patients, necessary advice given and were asked to attend the surgical outpatient department for regular follow-up.

RESULTS

In present study 100 cases were evaluated for cervical lymph node enlargement. All cases were taken for Fine Needle Aspiration Cytology (FNAC), but in 10 cases FNAC was inconclusive. Excisional biopsy was performed in all 100 cases and finally these cases were analyzed in detail. 54% cases were confirmed as tubercular lymphadenitis, 26% as reactive lymphadenitis, and 14% as malignant secondaries, 10% cases as Inadequate / no opinion and 6% as lymphomas. Thus tuberculosis was the commonest etiology for cervical lymphadenopathy in the present series.



Fig 1: Cervical lymph node enlargement

Table 1. Gender Distribution

Gender	No of Cases (%)
Male	52 (52%)
Female	48 (48%)
Total	100 (100%)

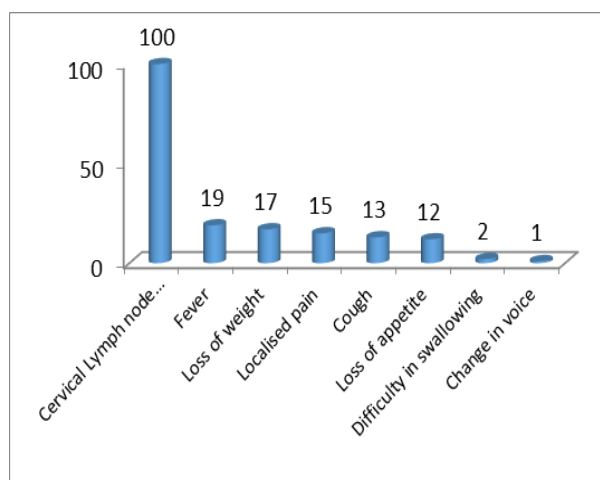


Fig 2. Incidence of presenting symptoms (constitutional symptoms)

DISCUSSION

54% cases were confirmed as tubercular lymphadenitis, 26% as reactive lymphadenitis, and 14% as malignant secondaries, 10% cases as Inadequate / no opinion and 6% as lymphomas. Thus tuberculosis was the commonest etiology for cervical lymphadenopathy in the present series. Shamshad Ahmad et al (2005) [10] concluded the study of FNAC in lymphadenopathy with special reference to acid fast staining in cases of tuberculosis. They found that 53.6% cases were benign reactive nature, 32.8% were tubercular etiology and 13.6% were malignant lymphadenopathy. Out of 328 cases of

Table 2. Site distribution (as per Level of Lymph nodes)

Level of lymph nodes	TBL	RL	Lymphomas	Metastatic secondaries	Total
Level 1	9	10	0	0	19
Level 2	14	6	3	7	30
Level 3	7	1	0	4	12
Level 4	6	2	1	1	10
Level 5	18	7	2	2	29
Level 6	0	0	0	0	0
Total	54	26	6	14	100

Table 3. Distribution of primaries in cases on secondaries in cervical region

Primary site of Malignancy	HPE in cervical Lymphadenopathy	No. of cases
Thyroid	Papillary	2
Tongue	Squamous cell carcinoma	4
Nasopharynx	Squamous cell carcinoma	1
Larynx	Squamous cell carcinoma	1
Esophagus	Squamous cell carcinoma	2
Stomach	Adenocarcinoma	1
Lung	Large cell Carcinoma	1
Unknown	Squamous cell carcinoma	1
	Adenocarcinoma	1
Total		14

Table 4. Treatment and Outcome

Diagnosis	No. of cases	Treatment	No. of cases	Outcome	
				Improved	Expired
Tubercular lymphadenitis	54	Anti-tubercular	49	49	0
		(Tubercular lymphadenitis with cold abscess) Anti-tubercular treat-	5	5	0
Reactive	26	Antibiotics	26	26	0
Metastatic secondaries	14	Chemotherapy/	5	3	2
		Operated	6	5	1
		Referred	3	Not Followed	0
Hodgkin’s Lymphoma	1	Chemotherapy	1	1	0
Non-Hodgkin’s Lymphoma	5	Chemotherapy	5	5	0

tubercular lymphadenopathy, Z-N positivity for acid fast bacilli was found in 152 cases (46.4%).

There were 80 non-neoplastic lesions and 20 neoplastic lesions in the present study. Presence of clinical symp-

toms has limited significance in clinical diagnosis as constitutional symptoms are variable and not consistent with specific disease. In tuberculosis, level V was most commonly affected (33.33%) followed by Level II

(25.92%). In contrast, in secondaries Level II group was most commonly involved (50%) and similarly in lymphomas Level II group was involved most commonly of the 6 cases of histopathologically confirmed lymphomas, 5 were Non-Hodgkin's variety and 1 was Hodgkin's lymphoma.

In the Jha BC et al (2001) series, Level II group was most involved in tuberculosis [11]. The result of this study is comparable to the study made by Baskota DK et al study, wherein tuberculosis Level V lymph nodes is most commonly involved [12].

Chest X-ray positivity was seen in 7.4% of cases of present study. The studies made by Jha BC et al (2001) series showed 16% positivity [11].

In the present study, commonest site of primary in cases of metastatic Secondaries was tongue followed by oesophagus and thyroid. The commonest site of primary in a case of malignant secondary was lungs and pancreas in the studies by Linderman et al [13]. In the study by Osama Gaber et al [14], it was possible to establish primary in 86.7% whereas in the present study it was only 85.71%. In rest of the cases, primary could not be diagnosed because of limited resources of our hospital.

Treatment: After proper diagnosis confirmed by Histopathology (biopsy), treatment constituted properly- Cases of Tubercular Lymphadenitis (49 cases) were Started on Anti-tubercular treatment, all were showed improvement in symptoms.

After coming to a diagnosis, treatment was instituted appropriately. For reactive lymphadenitis, tubercular lymphadenitis medical treatment was instituted. In this study, patients with tubercular Lymphadenitis were started on antitubercular treatment as per Categories while patients of Tubercular Lymphadenitis with cold abscess were treated with Incision & Drainage and antitubercular treatment. In the treatment of tubercular lymphadenitis similar findings as in present study was obtained from Jha BC et al, where short course chemotherapy was given with no recurrence [11].

Anti-tubercular treatment for tubercular lymphadenitis was highly satisfactory with improvement in almost all patients. Surgery was restricted as an adjuvant to chemotherapy, as diagnostic biopsy, for treatment of abscess/sinuses and for a lymph nodes that do not resolve with chemotherapy. Non-tuberculous non-neoplastic lesions were best managed conservatively. The neoplastic lesions of lymph nodes require speciality oncology protocols.

Cases of Tubercular Lymphadenitis with Lymph node abscess (5 cases) were treated with Incision and Drainage and started on Anti-tubercular treatment, all showed improvement in symptoms on follow up.

Cases of Reactive lymphadenitis (26 cases) started on antibiotics, all recovered well. Among 14 Cases of Metastatic secondaries, 5 cases were given Chemotherapy-Radiotherapy after expert oncologist opinion out of which 3 showed improved symptoms and 2 were expired, 6 cases were operated out of which 5 showed improved symptoms and 1 expired post operatively, 3 cases were referred to specialized oncological and oncosurgical center for further management. All 6 Lymphoma cases were started on chemotherapy after expert oncologist opinion showed improvement in symptoms.

CONCLUSION

Tuberculosis was the commonest etiology for cervical lymphadenopathy, commonest site of primary in cases of metastatic, secondaries was tongue followed by oesophagus and thyroid. Anti-tubercular treatment for tubercular lymphadenitis was highly satisfactory with improvement in almost all patients. Surgery was restricted as an adjuvant to chemotherapy, as diagnostic biopsy, for treatment of abscess/sinuses and for a lymph nodes that do not resolve with chemotherapy. Non-tuberculous non-neoplastic lesions can be best managed by conservatively.

Conflict of interest : Nil declared

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