

## Clinical and Aetiological Pattern of Cervical Lymphadenopathy in Bangladesh

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### ABSTRACT

**Objective:** In this study our main aim is to evaluate clinical and aetiological pattern of cervical lymphadenopathy in Bangladesh.

**Method:** This cross-sectional analytical study was done Total 260 patients with cervical lymphadenopathy, persisting for >2 weeks either localized or generalized attending inpatient and outpatient department (particularly surgical, medical, pediatrics, ENT, dermatology) of Dhaka Medical College Hospital, from July 2009 to December 2011.

**Result:** In the majority (85%) of patients had anorexia followed by 76.5% fever, 69.2% weight loss, 34.6% cough, 15% pain, 7.7% haemoptysis, 4.6% discharging sinus, 2.6% change of voice and 2.3% dysphagia. Of the 82 patients diagnosed as metastatic carcinoma (by tissue diagnosis), the commonest primary site was lung (41.5%) followed by stomach (14.6%), thyroid (12.2%), nasopharynx and oral cavity (each 7.3%), breast 4.9%, testes 2.4%. In 9.8% of the cases the primary site was not discovered.

**Conclusion:** From our result, we can conclude that, anorexia, fever and weight loss were common clinical feature in tuberculosis, secondary metastasis and lymphoma. Further study is needed for better outcome.

**Keywords:** Clinical, Etiology, Cervical Lymphadenopathy.

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### INTRODUCTION

Cervical lymphadenopathy refers to lymphadenopathy of the nodes. The term lymphadenopathy strictly speaking refers to disease of the lymph nodes<sup>1</sup>, though it is often used to describe the enlargement of the lymph nodes. Similarly, the term lymphadenitis refers to inflammation of a lymph node, but often it is used as a synonym of lymphadenopathy.<sup>2</sup>

Cervical lymphadenopathy is a sign or a symptom, not a diagnosis. The causes are varied, and may be inflammatory, degenerative, or neoplastic.<sup>3</sup> In adults, healthy lymph nodes can be palpable (able to be felt), in the axilla, neck and groin.<sup>4</sup> In children up to the age of 12 cervical nodes up to 1 cm in size may be palpable and this may not signify any disease.<sup>5</sup> If nodes heal by resolution or scarring after being inflamed, they may remain palpable thereafter.<sup>6</sup> In children, most palpable cervical lymphadenopathy is reactive or infective. In individuals over the age of 50, metastatic enlargement from cancers (most commonly squamous cell carcinomas) of the aerodigestive tract should be considered.<sup>7</sup>

In this study our main aim is to evaluate clinical and aetiological pattern of cervical lymphadenopathy in Bangladesh.

### OBJECTIVE

#### General Objective

- To evaluate clinical and aetiological pattern of cervical lymphadenopathy in Bangladesh.

#### Specific Objectives

- To detect clinical presentation of the patients
- To identify various lymphadenopathy in different groups of cervical lymph nodes.

### METHODOLOGY

**Type of Study:** Cross sectional analytical study.

**Place of Study:** In and out patient Departments of Dhaka medical college hospital, Dhaka.

**Study Period:** July 2009 to December 2011.

**Study Population:** Total 260 patients with cervical lymphadenopathy, persisting for >2 weeks either localized or generalized attending inpatient and outpatient department (particularly surgical, medical, pediatrics, ENT, dermatology) of Dhaka Medical College Hospital, Dhaka.

**Sampling Technique:** Purposive

**Inclusion Criteria**

- Cases presented with cervical lymphadenopathy were included in this study and subsequent underwent FNAC or lymphnode biopsy.
- Cervical lymphadenopathy persisting >2 weeks.
- Both sexes of variable ages.

**Method:** Detailed history was taken and thorough physical examination with careful attention to the involved lymph nodes and its draining area was done. All the information was recorded in a fixed protocol.

**Statistical Analysis:** Collected data was collated and appropriate statistical analysis was done using SPSS (Statistical program for scientific study) package

**RESULTS**

Table 1 shows gender distribution of the patients where male to female ratio was 1:1.2.

In table 2 shows age distribution of the patients where most of the patients belong to 11-20 years.

**Table 1: Gender distribution of the patients**

Gender	%
Male	48%
Female	53%

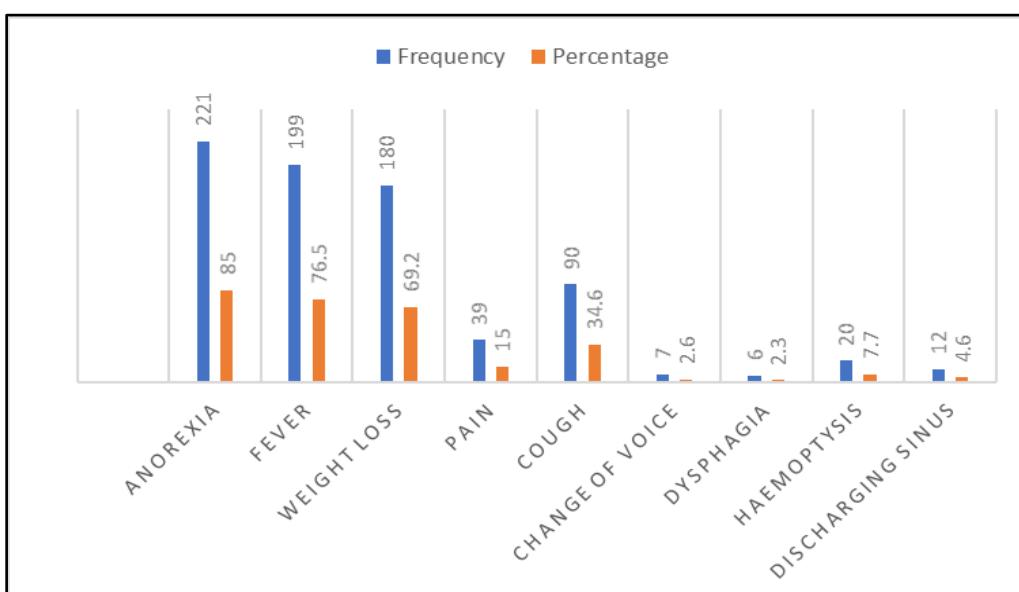
**Table 2: Distribution of patients according to age group (n=260)**

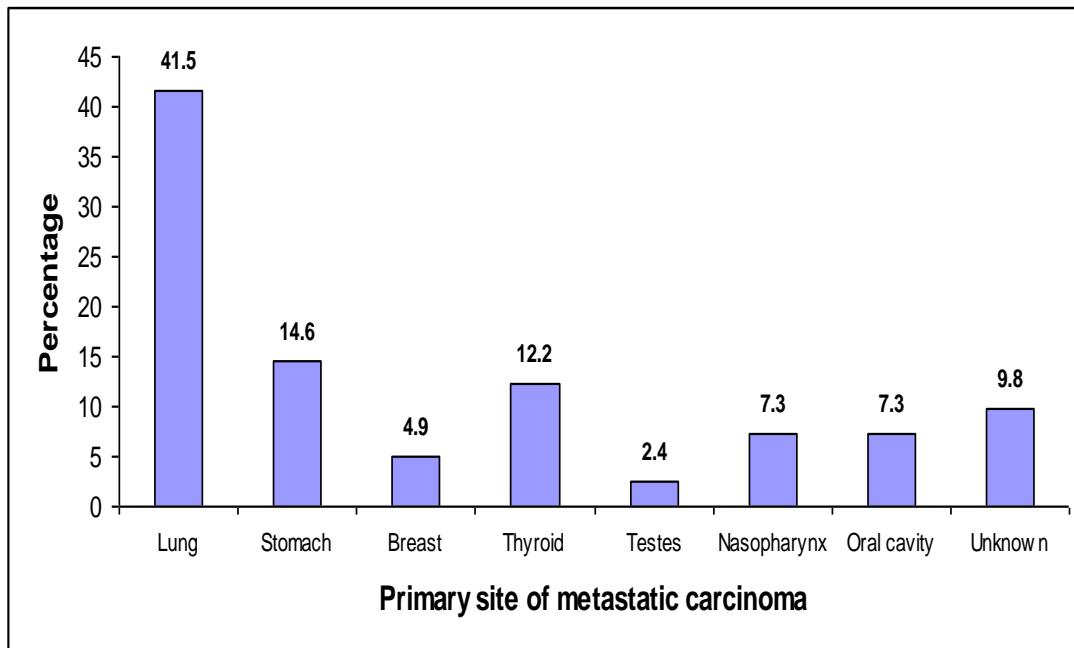
Age group (years)	Total	Tuberculosis	Metastatic carcinoma	Lymphoma	Nonspecific reactive change
	(n=260)	(n=113)	(n=82)	(n=44) No.	(n-21)
	No. (%)	No. (43.5%)	No. (31.5%)	(16.9%)	No. (8.1%)
0-10	13 (5.0)	7 (53.8)	2 (15.3)	4 (30.7)	0
11-20	66 (25.4)	36 (57.1)	4 (7.1)	21 (28.6)	5 (7.1)
21-30	65 (25.0)	34 (52.0)	5 (8.0)	16 (24.0)	10 (16.0)
31-40	34 (13.1)	15 (31.3)	10 (50.0)	1(2.9)	8 (18.8)
41-50	36 (13.8)	3 (7.7)	26 (76.9)	6 (15.4)	1(2.8)
>50	46 (17.7)	18 (10.0)	22 (60.0)	14 (10.0)	2 (20.0)

**Table 3: Distribution of various lymphadenopathy in different groups of cervical lymph nodes (n=260)**

Lymph node groups	Total	Tuberculosis	Metastatic carcinoma	Lymphoma	Nonspecific reactive change (n=21)
	(n=260)	(n=113)	(n=82)	(n=44) No.(%)	No. (%)
	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)
Submental and submandibular	29 (11)	18 (62)	8 (6.7)	1 (5.3)	2 (27.3)
Anterior cervical	45(17.3)	20(32.5)	12(66.7)	5(52.6)	8(72.7)
Posterior cervical	141(54)	39(87.5)	2(6.7)	98(78.9)	2(18.2)
Supra-clavicular	74 (29)	12 (10.0)	56(86.7)	4 (10.5)	0

\* Total will not correspond to 100% for presence of multiple group of lymphadenopathies.

**Figure 1: Clinical presentation of the patients**

**Fig. 2: Primary site of metastatic carcinoma**

In figure 1 shows clinical presentation of the patients where majority (85%) of patients had anorexia followed by 76.5% fever, 69.2% weight loss, 34.6% cough, 15% pain, 7.7% haemoptysis, 4.6% discharging sinus, 2.6% change of voice and 2.3% dysphagia.

In table 3 shows distribution of the cervical lymph nodes where posterior cervical nodes were involved in more than half of the cases (54.2%) followed by supraclavicular (28.5%), anterior cervical (17.3%) and submental and submandibular nodes (11.2%).

In figure 2 shows primary site of metastatic carcinoma. Of the 82 patients diagnosed as metastatic carcinoma (by tissue diagnosis), the commonest primary site was lung (41.5%) followed by stomach (14.6%), thyroid (12.2%), nasopharynx and oral cavity (each 7.3%), breast 4.9%, testes 2.4%. In 9.8% of the cases the primary site was not discovered. Sometimes cervical lymphadenopathy may not obvious & warrant through search for primary site e.g. Lung, Thyroid, Nasopharynx, previously excised skin lesion, Testis.

## DISCUSSION

Clinical presentation in this series besides cervical lymphadenopathy were anorexia (85.0%) pyrexia (76.5%), weight loss (69.2%). Anorexia, pyrexia and weight loss are the most common presenting features in tuberculosis, secondary metastasis and lymphoma.

Most of the involved lymph nodes were unilateral and multiple. Only lymphoma showed bilateral involvement. Mostly the tuberculous nodes were firm, matted and non-tender. Metastatic nodes were hard discrete and fixed and nodes in lymphoma were discrete, rubbery, mobile and non-tender. Posterior chain was found in present study to be commonly involved in tuberculosis and lymphoma. Supraclavicular lymph nodes were mainly involved by secondary metastasis.

In this series of cervical lymphadenopathy clinically found 59% patients diagnoses as tubercular, 27.7% metastatic, 12.7%

lymphoma and 5% NSRH. Accuracy of clinical diagnosis in compared with pathological findings in case of TB (50.38%), metastatic carcinoma (96.15%), lymphoma (96.15%) and NSRH (96.94%). Which is supported by several studies.<sup>6-7</sup>

Secondary metastasis is second to tuberculosis as the cause of cervical lymphadenopathy. In this study metastatic lymphadenopathy accounts 31.5% of cases. One study reported that, 33% cases.<sup>8</sup> other study reported 17.54% cases as secondary metastasis.<sup>9</sup> One report observed that, 21.3% cases.<sup>10</sup> Another report observed 25.7%.<sup>11</sup>

In contrast one study observed 14.9% cases, this is because their studies were conducted only to the patients admitted in the medical wards, whereas present study includes both inpatient and outpatient departments. One study said that, supraclavicular lymphadenopathy as highest risk of malignancy, estimated as 90% in older than 40 years of age.<sup>13</sup> Another report said that, 64% metastatic deposit in left supraclavicular gland.<sup>14</sup>

## CONCLUSION

From our result, we can conclude that, anorexia, fever and weight loss were common clinical feature in tuberculosis, secondary metastasis and lymphoma. Further study is needed for better outcome.

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