Chronic Cervical Lymphadenopathy: A Clinico-Pathological Profile.

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ABSTRACT
It has been documented that Cervical lymphadenopathy is the most frequent site of regional lymphadenopathy. Cervical Tuberculous lymphadenitis is the most common form of extra-pulmonary Tuberculosis. A single observer cross sectional prospective study was conducted in the department of Pathology of Rajiv Gandhi Medical College attached to a tertiary level Chhatrapati Shivaji Maharaj Hospital over the period of 1st of August 2011 to 31st of January 2012 total 250 cases of Cervical lymphadenitis were assessed clinically and by FNAC. In the cytological diagnosis, tubercular lymphadenitis was most prevalent diagnosis (40.40%). Among the metastatic secondaries, squamous cell carcinoma was most common. Tuberculous lymphadenopathy was most common in third decade with a female preponderance. Posterior triangle (level V) groups of Lymph nodes were found significantly more involved by reactive and non specific lymphadenitis whereas Jugulo-diagastric (level II) were more commonly involved in TB. The clinico-pathological study of cervical lymphadenopathy will help clinicians in better managements of patients.

INTRODUCTION
It has been documented that Cervical lymphadenopathy is the most frequent site of regional lymphadenopathy[1]. The condition most commonly represents a transient response to a local or generalized infection or chronic infections including mycobacterial infections, viral infection and less frequently neoplasms, collagen vascular diseases, and medications[2]. Cervical Tuberculous lymphadenitis is the most common form of extra-pulmonary Tuberculosis [3]. Cervical lymphadenopathy remains a diagnostic and therapeutic challenge because it mimics other pathologic processes and yields inconsistent physical and laboratory findings[4]. Fine needle aspiration cytology (FNAC) is an easy, safe and cost effective procedure to diagnose lymphadenopathy.

Although there are many studies depicting the clinico-pathological presentation of cervical lymphadenopathy in children, similar studies of general population are few. This study aims to know the overall prevalence and the clinical manifestations of Cervical lymphadenopathy.

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RESULTS
The present study over the period of 1stof August 2011 to 31st of January 2012 total 250 cases of Cervical lymphadenitis were assessed clinically and by FNAC. Out of total 250 patients 142 were females and 108 were males with a mean age of 26.20 years [ SD = 15.86yrs]. Age ranged from 1 month -80 years.

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Number</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuberculous lymphadenitis</td>
<td>73</td>
<td>29.20</td>
</tr>
<tr>
<td>Tuberculous Abscess</td>
<td>25</td>
<td>10.00</td>
</tr>
<tr>
<td>Tuberculosis with superadded infection</td>
<td>3</td>
<td>1.20</td>
</tr>
<tr>
<td>Granulomatous lymphadenitis suggestive of tuberculosis</td>
<td>39</td>
<td>15.60</td>
</tr>
<tr>
<td>Reactive lymphadenitis</td>
<td>37</td>
<td>14.80</td>
</tr>
<tr>
<td>Neoplastic</td>
<td>15</td>
<td>6.00</td>
</tr>
<tr>
<td>Non specific lymphadenitis</td>
<td>21</td>
<td>8.40</td>
</tr>
<tr>
<td>No opinion possible</td>
<td>27</td>
<td>10.80</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>10</td>
<td>4.00</td>
</tr>
<tr>
<td>Total</td>
<td>250</td>
<td>100 %</td>
</tr>
</tbody>
</table>

Table 1. Prevalence of various lesions responsible for cervical lymphadenopathy.

101 patients [ 40.40%] presented with Tuberculous lymphadenitis ; the demographic distribution of patients with Tuberculous lymphadenitis is shown in fig 1.

Average size of lymphnode in tuberculous lymphadenitis was 4.32 sq. cm, Granulomatous lymphadenitis 6.17 sq. cm, Neoplastic lymphnodes 8.12 sq. cm and no opinion was possible if size was less than 2.9 sq cm.

Out of all groups of lymph nodes as per American Academy of Otolaryngology and Head Neck Surgery (AAO-HNS) classification (level-I to VI) showedthat tuberculosismost commonly manifested as upper deep cervical lymphadenopathy [ Level II ] 32 nodes [ 31.68%], followed by 26 [ 25.74%] posterior triangle nodes [ Level V ] rest all groups of nodes showed average 13.54 % incidence of tuberculosis. Reactive lymphadenitis was most common in posterior triangle nodes [ Level V ] 44.74 %] followed by Non specific lymphadenitis in posterior triangle nodes [ Level V ] 33.33%. Rest site specific analysis was not significant.

Out of 15 patients of neoplastic lymphadenopathy 6 patients had metastatic squamous cell carcinoma 5 patients had lymphotetic malignancy 2 patients had thyroid neoplasms one soft tissue neoplasm and 2 metatases of unknown origin.

Discussion:
The study documented the fact that out of 250 patients 104 patients [ 40.40%] presented with Tuberculous lymphadenitis and 39 patients [ 15.60%] had Granulomatous lymphadenitis suggestive of tuberculosis, reiterating the fact that the tuberculosis is the most common cause of cervical lymphadenopathy study by Bhatt et al showed that out of 532 patients, the tuberculous lesions were 276 (51.9 %) which is consistant with our findings.[5]

The lesions arising in the lymph node can be found in patients ranging from early to advanced age, in our study youngest patient was 1 month old and oldest was 80 years of age. The mean age was 26.20 years with standard deviation of 15.86 yrs . The prevalence of tuberculous lymphadenitis had maximum i.e. 47/46.53% cases within the range of 21 to 30 years, Biswas also showed that peak TB lymphadenitis occurred in 2nd–3rd decades of life. [6]

A declining trend was noted in incidence of tubercular lymphadenitis after 30 years of age. It may be due to the development of immunity in older patients. Thus tuberculous lymphadenitis seems to affect the young adult age group. These findings are consistent with findings of other studies.[7]

In this study we noticed female predominance which is correlating with a study by Mansoor Ibrhim and Abdul-Aziz Sayed . [8]

The Constitutional symptoms in all the patients of tuberculous lymphadenitis such as fever with evening rise of temperature 52 patients [51.48%], anorexia and significant weight loss 28 patients [ 27.72 %] gave past history of Koch’s and 7 patients [ 00.69 %] had history of hocks contact.

Clinical history of patients with tuberculous lymphadenopathy revealed 28 patients [ 27.72 %] cases had past history of Koch’s with and 7 patients [ 00.69 %] had history of Koch’s contact . This shows that tuberculous lymphadenitis could be due to reactivation of endogenous mycobacteria or reinfection where as history of Koch’s contact in family doesn’t show any remarkable effect as most of the study population consisted of young adults. However , Positive history of Koch’s contact in the family was a significant epidemiological indicator of tuberculous glands in children , Narang et al.[10]

Palpatory findings of patients showed that most of the cases of tuberculous lymphadenopathy showed a solitary painless nodes with average size of 4.32 sq. cm and firmly in consistancy 70(69.31%) and freely mobile 82(81.80%) . Only 7 [ 00.69 %] lymph nodes showed matting .None of the lymph nodes showed sinus formation or fistulous tracts or collar stud abscess of evidence of ulceration. This might be due to better immunity and early presentation of the disease. This study
is consistent with the changing clinical pattern of tuberculous lymphadenitis seen by Jha et al.

Tuberculosis most commonly manifested as upper deep cervical lymphadenopathy [Level II] 32 nodes [31.68%]; followed by 26 [25.74%] posterior triangle nodes [Level V] where as Dass reported that upper jugular nodes were most commonly affected by TB.[11]

Supraclavicular (level VB) groups of lymph node were found to be involved mostly by malignancy. In contrast Jugulo-diagastic (level II), groups were found to be involved most commonly and significantly by tuberculosis. However, involvement of the submental (level IA) group of lymph node was not significantly associated with any particular disease and Reactive lymphadenitis followed by Non specific lymphadenitis was most common in posterior triangle nodes [Level V] this can be attributed to some extent by the anatomical basis of lymphatic drainage of the primary sites especially the nasopharynx.[12]

The prevalence of malignancies was most common in the 4th and 5th decade caused by metastatic cervical lymphadenopathy; 6 patients had metastatic squamous cell carcinoma and 2 undifferentiated Carcinoma5 patients had lymphoreticular malignancy 2 patients had thyroid neoplasms. Similar findings were revealed in many studies.[13,14]

CONCLUSION
The study concluded the fact that the tuberculosis is the most common cause of cervical lymphadenopathy. The present study describes the age-sex distribution of chronic cervical lymph node diseases, their mode of presentation and predilection for different lymph node groups. The clinico-pathological study of cervical lymphadenopathy will help clinicians in better managements of patients.

REFERENCES