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RESEARCH ARTICLE

CERVICAL LYMPHADENOPATHY-OUR EXPERIENCE

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ABSTRACT

Background: Cervical lymphadenopathy is commonly seen in surgical practice, tuberculous lymphadenopathy is most commonest cause of cervical lymphadenopathy ,the aim of study is to know the overall various diseases responsible for cervical lymphadenopathy. **Methods:** Study was carried out by prospectively collected 420 cases of chronic cervical lymphadenopathy from the Department of General Surgery Al Ameen medical college ,Vijayapura Karnataka. **Results:** Cervical Lymphadenopathy is more common below 30 years of age with 68.88%. Most of the patients of cervical lymphadenopathy in our study belong to the poor socio-economical class.Cases in this study presented with swelling in the cervical region, 214(51%). **Conclusion:** Tuberculous adenitis reactive lymphadenitis, Malignancy (primary and metastatic) & drugs were other causes responsible for cervical lymphadenopathy.

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INTRODUCTION

Cervical lymphadenopathy is one of the commonest presentations in inflammatory and neoplastic disorders [Chandralekha Janagam, 2017] Cervical lymphadenopathy is usually defined as cervical nodal tissue measuring more than 1 cm diameter [Jilani, 2014]. The commonest causes for cervical lymphadenopathy are tuberculous lymphadenitis which is a common manifestation of extra pulmonary tuberculosis, secondaries in the cervical lymph nodes, lymphomas and nonspecific lymphadenitis.3 In India tuberculosis is a major health problem due to enormous social and economic constraints. The human immunodeficiency virus (HIV) epidemic has been associated with an increase in the total incidence of TB and an increased proportion of miliary, disseminated, and extra pulmonary TB cases including lymphadenitis [Hill, 1991]. Understanding prevalent conditions and presentations of lymphadenopathy in rural population will make it possible to establish sound clinical protocol in evaluation and diagnosis of this condition preventing delay in diagnosis and treatment [Yogesh, 2018] Fine needle aspiration cytology is a cheap and accurate first line investigation in lymphadenopathy.3 Because of early availability of results, simplicity, minimal trauma and complications, the aspiration cytology is now considered as a valuable diagnostic aid and it provides ease in following patients with known malignancy and ready identification of metastasis or recurrence [Steel, 1995]. The present study was carried out to know the overall various diseases responsible for cervical lymphadenopathy.

MATERIAL AND METHODS

The present study was carried out by prospectively collected 420 cases of chronic cervical lymphadenopathy from the Department of General Surgery Al Ameen medical college ,vijayapura India from January 2014 December 2018. In these patients, age group, sex distribution, socio economical class and incidence of tuberculosis in cervical lymphadenopathy were studied.

History, clinical presentation and family history were recorded. Relative investigations were carried out which included Blood Picture, Erythrocyte Sedimentation Rate (ESR) and Chest X-Rays. FNAC was done for tissue diagnosis, and when FNAC was non-conclusive, other investigations like excision biopsies were done. Exclusion criteria included patients who were already diagnosed, on treatment and with relapses within 1 year of age and lymph node of size less than 1 cm. Data was collected, statistically analyzed.

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Table 1. Demographic data

Sex distribution	Age	No of patients	Percentage
Male-160 (38%)	2-10	63	15%
Female-260 (62%)	11-20	84	20%
	21-30	101	24%
M:F = 1:1.6	31-40	151	36%
	41-50	21	5%
	Total	420	100%
Income group		Numbers	Percentage
	Low income upto Rs600/month	294	70%
	Middle income Rs600-1500/month	118	28%
	High income greater than Rs1500/month	8	2%
	Total	420	100%
Symptoms			
	Swelling in neck	420	100%
	Fever and cough	214	51%
	Loss of weight and appetite	273	65%
	Dysphagia and pain in throat	34	8%
	Other symptoms involved	42	10%
	Other lymph nodes involved	21	5%
TB exposure			
	Yes	42	10%`
	No	378	90%
	Unilateral/bilateral		
	Unilateral	382	91%
	Bilateral with other groups involved	38	9%
Parameters of enlarged lymph nodes			
	Firm, matted and mobile	118	28%
	Firm and discrete	219	52%
	Fluctuant without sinus	42	10%
	Rubbery and discrete	34	8%
	Hard in consistency	7	2%
Affected Lymph nodes	Affected group of Lymph nodes		
	Sub-mandibular and sub-mental	84	20%
	Upper ant. deep cervical	193	46%
	Upper post. deep cervical	67	16%
	Lower ant. deep cervical	67	16%
	Lower post. deep cervical	9	2%
Investigations	Radiological evidence of TB		
	No evidence (normal)	390	93%
	Evidence of active TB	30	7%
	Total	420	100%
	FNAC		
	Conclusive	378	93%
	Non-conclusive	42	10%
	Open biopsy	37	8%

Table 2. Prevalence of various causes responsible for cervical lymphadenopathy

Causes	No of patients	Percentage
Tuberculous adenitis	273	65%
Reactive lymphadenitis	105	25%
Lymphoma	21	5%
Secondary CA	12	3%
Dung-induced	9	2%

Table 3. Comparison of current study with other studies evaluating causes for cervical lymphadenopathy. [15]

Author	Total cases	Reactive lymphadenitis	TB lymphadenitis	Malignancy (primary and metastatic)	Others
Present series	420	105 (25%)	273 (65%)	33 (8%)	9 (2%)
Janagam C et al	200	95 (47.5%)	60 (30%)	30 (15%)	15 (7.5%)
Khuba R	50	10 (20%)	08 (16%)	03 (6%)	13 (26%)
Vapi et al	34	10 (29.4%)	08 23.5%)	03 (8.8%)	13 (38.2%)
Tariq et al	100	18 (18%)	36 (36%)	14 (14%)	32 (32%)
Koo V et al	18	00	05 (27.8%)	06 (33.3%)	07 (38.9%)
Bai M	50	3 (6%)	31 (62%)	16 (32%)	00

RESULTS AND DISCUSSION

Present study was carried out in 420 cases of chronic cervical lymphadenopathy from the Department of General Surgery Al Ameen medical college, vijayapura In our series highest number of cases were seen in 31 to 40 years 36%, and 26% in 21 to 30 years. While in the study conducted by Abdul Qayoom Daudpota et al. (2013) [Abdul Qayoom Daudpota, 2013], cervical Lymphadenopathy is more common below 30 years of age with 68.88% and in above 30 years it is 31.12%, and in the study conducted by Abdul Haque Khan (2011) age ranged from 12 years to 85 years [Abdul Haque Khan, 1951].

In our study, there were 160 (38%) males and 260 (62%) females ,with male female ratio is 1:1.6 Findings in present study are in concurrence with the studies like Mutiullah et al (1;1.4), Umer et al (1;2.8), and Sayyad et al (1;1.2) where female predominance was reported [Iqbal, 2010; Mutiullah, 2009; Umer, 2009]. Most of the patients of cervical lymphadenopathy in our study belong to the poor socio-economical class and a similar observation was made previously made by (Abdul Qayoom Daudpota et al., 2013] Ibrahim Mansoor and Sayed Abdul-Aziz 2002) which showed that 86.86% patients were also from the low socio-economical group [Ibrahim Mansoor, 2002]. All the 420 cases in this study presented with swelling in the cervical region, 214(51%) patient had fever with cough, 273 patients(65%) had loss of weight and appetite, 34 (8%) had Dysphagia and pain in throat, and 42 (10%) had other symptoms. In most of the cases the presenting symptom was swelling in the neck and few of them had other constitutional symptoms which were not significant, results are similar with other studies [Abdul Qayoom Daudpota, 2013].

In our study, unilateral lymph node involvement was (91%) 382 patients and (9%) 38 patients having bilateral lymph node involvement results are similar with other studies [Jilani, 2014] In our study, firm and discreet lymphadenopathy was present in 219 patient (52%); firm, matted and mobile lymph nodes were present in 118 patients (28%), fluctuate without sinus were present in 42 patient (10%), rubbery and discreet lymph nodes were present in 34 patients (8%), and lymph nodes which were hard in consistency was seen in 7 patients (2%). A study by Ibrahim Mansoor et al. (2002) showed that the consistency of enlarged lymph node varied; it was solid in 325 (79.6%) patients and cystic with sinus formation in 94 (22.4%) patients [Ibrahim Mansoor, 2013]. Study conducted by Renuka et al among the 50 cervical lymphadenopathy cases clinically examined 39 patients had firm consistency (78%), 10 had hard consistency accounting for (20%) and in one case rubbery consistency [Renuka, 2017]. In our study, upper anterior deep cervical lymph node enlargement was seen in 46% of the cases while lower anterior deep cervical lymph node enlargement was seen in 16% cases. Upper posterior deep cervical lymph node was seen in 16% cases. Sub-mandibular and sub- mental nodal involvement comprised of 20% cases and lower posterior deep cervical lymph nodal involvement was seen in 2% cases. In the study conducted by Renuka et al. it has been seen that more number of cases have been involved in middle deep cervical lymph node i.e. mid jugular accounting for 44% followed by involvement of upper deep cervical in 40% of cases, 10% in supraclavicular group, 4% in posterior triangle and 2% involving submental lymph nodes i.e. more common in level III group of cervical lymph nodes [Renuka, 2017]. Study by Meera bai in 2004 shows upper deep cervical lymphnodes were involved in 35 cases middle deep cervical lymphnodes in 11 cases and supraclavicular nodes in 4 cases [Renuka, 2017]. Study conducted by Abdul Qayoom Daudpota et al. (2013) shows that the most common site for lymphadenopathy is posterior triangle of the neck. Deep cervical lymph nodes were enlarged in 75.4% and other cervical lymph nodes were comparatively less affected [Abdul Qayoom Daudpota, 2013]. In our study, only 7% of the patient showed evidence of active tuberculosis on radiology. while Abdul Qayoom Daudpota et al. (2013) showed 3.64% cases having the active tuberculosis on radiology [Abdul Qayoom Daudpota, 2013]. FNAC is conclusive up to 93% in our study. The study conducted by Maharajan et al showed its conclusive in 87.77%. (2009) [Maharjan et al., 2009]. The overall clinical diagnostic accuracy in Chamyal and Sabargirish study was 88.3% [Ibrahim Mansoor, 2002]. In the present series, tuberculous adenitis is the common cause of cervical lymphadenitis with 95 (63%) cases followed by chronic non-specific lymphadenitis with 41(27.33%) cases, lymphoma with 8 (5.33%) cases , secondary carcinoma with 3 (2%) cases and drug induced 3 (2%). Comparison of our results with other studies is mentioned in table number 3.

Conclusion

Tuberculous lymphadenopathy is most commonest cause of cervical lymphadenopathy, Highest number of cases were seen in 31 to 40 years, Most of the patients of cervical lymphadenopathy in our study belong to the poor socio-economical class. Upper anterior deep cervical lymph node is commonly involed lymph node (46%) FNAC is highly conclusive in diagnosis cervical lymphadenopathy. Reactive lymphadenitis, Malignancy (primary and metastatic) & drugs were other causes responsible for cervical lymphadenopathy

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