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"EVALUATION OF CERVICAL LYMPHADENOPATHY IN LESIONS OF EAR, NOSE AND THROAT"

ENT

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ABSTRACT

Enlargement of cervical lymph nodes is a common clinical condition encountered by the clinicians. Lymphadenopathy more than 1cm indicates a clinical manifestation of regional or systemic disease and serves as an excellent clue to the underlying disease. Tumors of ENT has higher incidence of cervical lymph nodes and also higher incidence of metastatic disease at presentation. Any form of cervical lymphadenopathy should not be ignored and should be considered as a strong and significant clinical input which ultimately leads to detection of several clinically silent diseases. The data on pattern of nodal metastasis would then provide the basis for management of carcinoma of upper aero digestive tract. The present Prospective observational study was conducted at ENT DEPARTMENT, GSL Medical College and General Hospital, Rajahmundry during the December 2013 to July 2015.

In the present study it is observed that Cervical lymphadenopathy is more common in the age group of 41-60 years with male predominance . Right side lymphadenopathy is observed with presence of mobility . Majority were moderately differentiated carcinomas . 42.5% has drainage from oral cavity followed by supra glottic and hypo pharynx regions. Majority belong to staging T2N2 and T3N2 . Hence thorough clinical examination of the neck in cases of head and neck tumours is helpful in the diagnosis as well as management.

KEYWORDS

ENT , Cervical lymph nodes , GSL Medical college , Rajahmundry, Andhra Pradesh.

INTRODUCTION

There are around eight hundred lymph nodes in our body out of which not less than three hundred are cited in the neck. Enlargement of cervical lymph nodes is a common clinical condition encountered by the clinicians.[1,2]Enlargement of the lymph nodes more than 1cm indicates a clinical manifestation of regional or systemic disease and serves as an excellent clue to the underlying disease. This cervical lymphadenopathy is also considered as one of the single most independent adverse prognostic factors in the absence of detectable metastasis. Cervical lymphadenopathy based on number of lymph nodes involvement and the level in neck involved , the size of metastasis, the presence of macroscopic and microscopic extracapsular spread of the metastatic tumor and soft tissue involvement all have a significant role in management of the therapy and it also gives an idea of prognosis.[3]Tumors of ENT has higher incidence of cervical lymph nodes and also higher incidence of metastatic disease at presentation.[4]The data on pattern of nodal metastasis would then provide the basis for advocating limited neck dissection and planning future prospective trials to evaluate the role of limited neck dissection in the management of carcinoma of upper aero digestive tract.[5,6]Any form of cervical lymphadenopathy should not be ignored and should be considered as a strong and significant clinical input which ultimately leads to detection of several clinically silent diseases.[7]

All forms of cervical lymphadenopathy should not be ignored and should be considered as a strong and significant clinical sign for early diagnosis treatment and for good prognosis. The present study was conducted to know about various clinical presentations of cervical lymph nodes and the involvement of different groups of cervical lymph nodes of ear nose and throat.

MATERIALS AND METHODS:

Study Setting: ENT DEPARTMENT, GSL Medical College and General Hospital, Rajahmundry.
Study Design: A Prospective observational study.
Study Period: December 2013 to July 2015
Sample Size: Patients admitted and during the study period.

Selection of Patients: Patient who presented with neck swelling either clinically or detected during evaluation of neck in lesions of Ear, Nose and Throat.

INCLUSION CRITERIA:

1. Cases of cervical lymphadenopathy, with or without previous history of any medical or surgical treatment for the same.2. Cases which were regular for post treatment follow-up.3. Patients willing to be part of this study.

EXCLUSION CRITERIA:

1. Cases which did not come for regular follow-up and who did not complete or receive any medical or surgical treatment.
2. Patients not willing to be part of this study and not given written informed consent.

Procedure:

Patients visiting the ENT OPD &/or admitted in the IPD for Cervical Lymphadenopathy during the above mentioned period for evaluation at GSL MEDICAL COLLEGE AND HOSPITAL was taken up for study with the help of a pre designed proforma was used to record relevant information like patient data, history, clinical findings and investigation report from individual cases.

Thorough clinical examination of nose, paranasal sinuses, Oral cavity, pharynx which includes nasopharynx, oropharynx and hypopharynx, larynx. A detailed local examination of neck for organ-specific drainage neck node was done for its site, size, number and its apparent relation to surrounding structure. Later appropriate investigations was done including FNAC (Fine Needle Aspiration Cytology), Ultrasound of the neck and endoscopy.

FNAC for neck node and biopsy of primary lesion was done for histopathological confirmation and to classify primary tumor based on grades of differentiation into well, moderate and poor differentiation.

All the malignancies of nose, oral cavity, pharynx including nasopharynx, oropharynx, hypopharynx and larynx were staged according to American Joint Committee on Cancer (AJCC/UICC2002 TNM classification).[8]

Statistical Analysis: was performed by using MS Excel-2007 Quantitative data was presented as mean ± standard deviation and qualitative data in percentages.

RESULTS:

In the present study a total of 40 patients were screened for cervical lymphadenopathy .Out of which 24 were males i.e., 60% and 16 were

female i.e.,40%.The Age groups of the patients were ranging from 20 years to 80 years, with a mean age of presentation is 58±25 years. Nine patients were in the age group of 21-40 years i.e. 22.5 % , 20 were in the age group of 41-60 years i.e.,50% and the remaining 11 in the age group of 61-80 years i.e., 27.5.

TABLE 1: Demographic Profile

	Frequency	Percent
GENDER		
Male	24	60
Female	16	40
AGE DISTRIBUTION		
21-40	9	22.5
41-60	20	50
61-80	11	27.5
SOCIO-ECONOMIC STATUS		
LOW	33	82.5
MIDDLE	7	17.5

Majority of the patients in our study were agricultural labour (40%) and daily labour (10%). Rest of them were semi-skilled labors like carpenter (5%), electrician (5%), chef (2.5%), tailor (2.5%), driver (2.5%) and ex-serviceman (2.5%). Remaining 30% of the study population were house –wives. Majority of patients belong to low socio-economic status group i.e., 82.5%% of cases and the remaining 17.5% belong to middle socioeconomic status group.42.5% Patients presented with the primary lesion and with neck swelling. In the presenting complaints.40% of Patients presented with Dysphagia, 10% with Dyspnea.17 cases presented with right sided cervical lymphadenopathy, 8 cases with left sided cervical lymphadenopathy and bilateral involvement of cervical lymphadenopathy was seen in 15 cases, which accounts to 42.5%, 20%, 37.5% respectively.

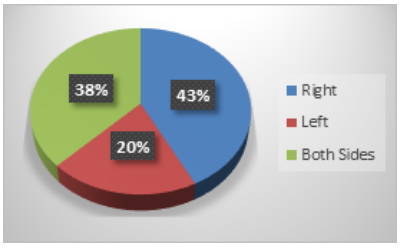

FIGURE 1: Side Of Lymphnode Involved

55% (22) cases were firm, 40% (16) cases were hard and 2 cases were firm and matted in consistency. Lymph nodes were mobile in 31 cases i.e., 77.5% and fixed lymphadenopathy was seen in 9 cases i.e., 22.5%.

TABLE 2: Distribution of cases according to Consistency and Mobility.

	Number	Percentage
Consistency		
Frim	22	55
Hard	16	40
Firm and Hard	2	5
Mobility		
Mobile	31	77.5
Fixed	9	22.5

TABLE 3: Distribution of Neck Metastasis according to Grading of Tumours

Grading	No. of cases	Percentage
Well differentiated carcinoma	9	22.5
Moderately differentiated carcinoma	25	62.5
Poorly differentiated carcinoma	1	2.5

9 cases were well differentiated i.e.,22.5%, 22 cases were moderately differentiated i.e.,62.5%, 1 case is poorly differentiated i.e., 2.5%

TABLE 4: T-stage Distribution

T Stage	Node staging			Total cases	Percentage
	N1	N2	N3		
T1	0	0	0	0	0
T2	2	13	1	16	45.7
T3	2	14	1	17	48.6
T4	1	1	0	2	5.7

16 (45.7%) cases in T2, 17 (48.6%) cases in T3 and 2 (5.7%) cases in T4 respectively and 5 cases not included in TNM staging. In present study most of the cases were in T3 stage followed by T2.

TABLE 5 :Organ-Specific Drainage and Incidence of Cervical lymph nodes Metastasis:

Organ Level	Percentage	Lymph node Involvement
Oral cavity	42.5%	IB,II,III
Oropharynx	10%	IB,II,III
Hypopharynx	15%	IB,II,III,IV
Supraglottic area	17.5%	IB,II,III
Nasopharynx	2.5%	IB,II,III,IV,V

But in case of Hodgkin lymphoma (2.5%) level of lymphnodes involved is IB and in Non-Hodgkin lymphoma (2.5%) level of lymphnodes involved is IB,and II along with generalized lymphadenopathy. In this study level-V nodal involvement and the matting helped in strong suspicious of Tuberculosis, confirmed by HPE.

DISCUSSION:

The Age distribution in the present study ranging from between 20 years to 80 years and majority were in the age group of 41-60 years i.e., 50% similar findings were observed by chamyal P.C et al where the incidence of cervical lymphadenopathy was highest in 41-60 age followed by 1-20 years.The major presenting symptoms of the patients in this study were primary growth (42.5%), neck swellings (42.5 %), dysphagia (40%), dyspnea (10%), change in voice (25%) and other symptoms being trismus, burning sensation in oral cavity and pain in the oral cavity, referred otalgia and fever.[9]In this study 17 (42.5%) cases presented with Right sided Cervical Lymphadenopathy,8(20%) cases with Left sided Cervical Lymphadenopathy and Bilateral involvement of Cervical Lymphadenopathy were seen in 15(37.5%) cases, compared to the study of Renuka S. Melkundi (2017) which shows right side (46%)involvement to be more common.[10]As per TNM staging system most of the cases presented in our study at a later stage that is N2 in contrast to the study conducted by Li XM et al., Michel F et al and Kris Moe et al which showed majority of nodal metastasis at early stage i.e., N1.[11,12]

In our study in patients of carcinoma of the oral cavity, metastasis ismostly to level I,II and III. The same was described by Shah J.P. and Candela F.C.that nodal involvement usually occurs at level –I, II, III incarcinoma of oral cavity.[13,14]In a study conducted by Vartanian et al in total of 80% with oropharyngeal carcinoma, the primary tumor sites were common in tonsils, base of tongue, vallecula and soft palate in decreasing order. In our presentstudy, the commonest site of oropharyngeal carcinoma with neck metastasis is base of tongue.[15]

In our study the primary lesions and the level of lymph nodes involved are:
Oral cavity (42.5%) levels of lymph node involved are – IB,II,III.
Oropharynx (10%) levels of lymphnode node involved are – IB,II,III.
Hypopharynx (15%) level of lymphnodes involved are – IB,II,III,IV.
Supraglottic area (17.5%) level of lymphnodes involved are –IB,II,III.
Nasopharynx (2.5%) level of lymphnodes involved are – IB,II,III,IV,V.

CONCLUSION:

By studying the cervical lymphadenopathy the organ specific drainage could be easily identified. Moreover the levels of lymphnode and other characters were helpful in predicting the type of disease in case of inflammatory nodes. This study of cervical lymphadenopathy clears throws some light for the physician in planning and dealing occult metastasis tumours and other lesions of oral cavity, pharynx by following echelon lymph nodes for the corresponding primary sites. Hence thorough clinical examination of lymph nodes of the ENT is helpful in the diagnosis as well as management.

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