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METASTATIC CERVICAL LYMPHADENOPATHY: A CLINICAL AND PATHOLOGICAL STUDY

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ABSTRACT

One of the most important prognostic indicator in any patient with squamous cell cancer of the head and neck is presence or absence of cervical metastasis. Once the patient has neck node metastases the survival drops almost to half. Identifying the presence of node metastasis and treating it appropriately is crucial to the final outcome. Squamous cell carcinomas of the upper aerodigestive tract metastasize primarily through lymphatics to the lymph nodes of the neck. The material for the present study comprises cases of lymphnode enlargement in malignant lesions mainly of head and neck. One hundred cases were studied in detail which includes the relevant symptoms, significant findings, appropriate investigations and treatment. The cases concerned are from various surgical wards (ENT, surgical oncology, General surgery) and medical wards of the Kasturba Medical College Hospital, Manipal. The cases from pediatric age group were not included in this study because it is rather very uncommon to have cervical secondaries in that age group. 100 cases of malignant cervical lymph nodes were studied. The age ranged between 19 years to 80 years. Pediatric patients were not included in this study. The male to female ratio was 7:3. This study has surveyed most of the factors considered to have any relevance to the disease. Particularly strong correlations were discovered between prevalence of oral cancer and the use of tobacco especially for chewing and smoking. Of the 100 cases studied 33% patients had malignancy of the oral cavity, 14% had primary of the oropharynx and 15% had hypopharynx primary and 3% had primary of the Nasopharynx. Commonest mode of presentation was neck swelling and pain in the oro-pharynx.

Keywords: Metastatic cancer, Cervical lymphadenopathy, Pathological study.

INTRODUCTION

Cervical metastasis by a tumor is firm statement of its aggressive malignant nature. Nothing is more controversial than the management of cervical metastatic disease. This is not surprising considering the lack of knowledge of carcinogenesis, pathophysiology of metastases, and implications of tumor spread. Fortunately, great strides have been made in the understanding of the intricate processes related to metastatic disease. Proper understanding of anatomy and the detection of cervical metastatic disease is crucial to this process. Forthcoming techniques will also facilitate the detection of primary and metastatic disease [1].

The asymptomatic enlargement of one or more cervical lymph nodes in an adult has at least an 85% chance of being malignant. Seventy per cent of malignant cervical nodes are metastases from primary head and neck cancers. The majority of the remainder are due to lymphomas. Factors suggesting malignancy include node size greater than 1.5 cm in diameter, hard painless nodes and rapid enlargement [2].

Present study was conducted to focus on clinical and pathological aspects of metastatic cervical lymphadenopathy.

MATERIALS AND METHODS

The material for the present study comprises cases of lymphnode enlargement in malignant lesions mainly of head and neck. One hundred cases were studied in detail which includes the relevant symptoms, significant findings, appropriate investigations and treatment.

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(1) The patient must have a malignant cervical lymphnode irrespective of the primary being known or occult.

(2) The study should include both male and female patients.

(3) There should be an FNAC or open biopsy report.

All relevant available investigations were carried out depending upon the clinical diagnosis of the cases. When a case with lymphadenopathy was admitted, a detailed history was taken, careful physical examination was done with special attention to the drainage areas and associated signs in other systems were recorded and lymphnode biopsy was done in all cases. Other relevant investigations were done where ever indicated. Children below the age of 13 were not included in this study. Patients were selected irrespective of caste, religion, language, education and socioecomic status.

RESULTS

100 cases of malignant cervical lymph nodes were studied. The age ranged between 19 years to 80 years. Pediatric patients were not included in this study. The male to female ratio was 7:3. The distribution of age and sex is shown in table 1.

Table 1. Distributions of age and sex

Age Group (yrs)	Male	Female	Total
Less than 20	1	0	1
21-40	4	8	12
41-60	48	16	64
61-80	17	6	23
Total	70	30	100

Table 2. Clinical vsHistopathological Diagnosis

Location of primary	Clinical diagnosis No. of cases	Histopathological diagnosis No. of cases
Buccal Mucosa	11	11
Oropharynx	5	5
Palate	3	3
MaligantThymoma	-	1
Tongue	14	14
Thyroid	5	5
Eccrineporoma (Malignant)	-	1
Oesophagus	1	3
Breast	1	2
Alveolus	4	4
Supraglottic	2	2
Cervix	-	1
Posterior pharynx	2	2
Pyriform fossa	4	6
Bronchogenic	2	7
Peripheral Neuroblastoma (Malignant)	-	1
Stomach	1	1
Nasopharynx	-	1
Glottis	4	4
Tonsil	4	4
Lower lip	1	1
Uvula	1	1
Maxilla	2	2
Larynx	5	5
Posterior cricoids	1	1
Submandibular gland	2	2

Chest wall	1	1
Hypopharynx	1	1
Unknown	4	4

Table 3. Comparative study of the Relative frequency of cancer by leading site

Site	Male		Female	
	Kidwai Institute Bang lore(1983) [3]	Present study	Kidwai Institute Banglore(1983) [3]	Present study
1. Tongue	5.88	9	9.62	9
2. Larynx	6.85	5	0.0	0
3. Hypopharynx	9.43	13	1.56	2
4. Oropharynx	3.55	10	0.0	4
5. Alveolus	5.49	3	3.51	1
6. Buccal cavity & pharynx	28.1	23	11.5	11

DISCUSSION

The highest incidence of malignancy was seen in the 40 to 60 years age group. This hospital caters to the needs of mainly the two neighboring states – Karnataka. & Kerala. Since their practices, diet and way of life is almost identical, the incidence of malignancy is almost the same in these two states. The incidence of malignancy is high in the uneducated, poor labour class of people. There is no differentiation between the religious groups because the social practices and habits are same among Hindus, Muslims and Christians. The commonest symptom is pain at the primary lesion. This occurs mainly because of cancer infiltration to nerves and muscles and ulceration.

The other common symptoms are neck swelling, (which is hard), dysphagia, cough hoarseness of voice, ulcer and loss of weight. It is observed that malignancy is common in people who have been smoking, consuming alcohol and chewing pan or tobacco for more than 20 yrs. Female patients indulged more in chewing pan or tobacco in this country where as smoking was the commonest among men. Probably due to the above reasons the malignancies of the oral cavity are the commonest. The commonest lesion in the oral malignancies is of the tongue followed by buccal mucosa, oropharynx and alveolus. A comparison between the study done at Kidwai Institute of Cancer, Bangalore (1983) [3] and this study showed that among female patients tongue malignancy was the commonest whereas among the male patients carcinoma of the hypopharyx was the commonest and values of both these studies coincided well.

Since most of the malignancies are oral and of oropharynx the percentage of LEVEL II lymphnodes is higher followed by level IV, which is involved because the primary is probably from breast, lungs, chest wall, cervix, thyroid and oesophagus. Most of the patients are detected at KMC probably because this institution is a referral institution and has various advanced modalities of treatment. Even the lesions which were detected at other hospitals have been referred to KMC for further management. It was observed that 40% of patients sought medical attention within 2 months which shows that the patients from Karnataka and Kerala are very much health conscious and are aware of malignancy, and within 6 months almost 70% of patients have sought medical attention. This is probably because of the high literacy rate prevalent in these two states. Although the older generations who are not so well educated find it difficult to change their habits which is revealed by their poor oral hygiene. 8 patients had cervical lymph nodes more than 6 cms in size and this is because the primary was poorly differentiated type and also some of these nodes are large because the patient had neglected to consult a doctor for treatment. Fixity is attributed for the same reasons. Since most of the primary lesions were lateral lesions and so there is only an unilateral involvement of lymphnodes. Few of these lesions are in the midline hence there is bilateral involvement of lymphnodes. Squamous cell carcinoma spreads slowly to the distant organs hence only 15 patients had distant metastasis, again, because the treatment was started very late and the lesion is anaplastic type. Also for the same reasons the recurrence of the malignancy is also seen. Since the spread of squamous cell carcinoma is very slow, the long term survival is also good. There was a difference in clinical diagnosis in 15 cases which was clarified by the histopathology. The difficulty was in the lesions involving the pyriform fossa, lung, oesophagus, thymus, breast, and nasopharynx.

Majority of these patients had multimodal treatment and the commonest combination was surgery followed by radiotheraphy. It is also noteworthy that most of these patients have a very poor prognosis, hence the treatment by surgery is only palliative.

CONCLUSION

This study has surveyed most of the factors considered to have any relevance to the disease.

Particularly strong correlations were discovered between prevalence of oral cancer and the use of tobacco especially for chewing and smoking. Of the 100 cases studied 33% patients had malignancy of the oral cavity, 14% had primary of the oropharynx and 15% had hypopharynx primary and 3% had primary of the Nasopharynx. Commonest mode of presentation was neck swelling and pain in the oro-pharynx.

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