

Clinicopathological Study of Oral Cancer*

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ORAL cancers, though situated on the surface of the body, easily accessible to diagnosis, but, contrary to our expectations many of the patients present in advanced stage of the disease. This may be inferred as ignorance either of the patient or clinician in diagnosing the nature of the lesion. Various workers (Wahi et al. 1965, Paymaster, 1962, Khanna et al 1975, Singh et al. 1966) have outlined the various factors responsible for production of these cancers, however, present study was undertaken to highlight some of the clinico-pathological aspects of this disease.

Material Methods : Present study was based on the observations on 25 cases suffering from carcinoma of different parts of oral cavity. After clinical evaluation of these cases 19 were subjected to surgical treatment for primary lesion as well as the block dissection of neck whereas in 6 cases primary lesion was cured by previous radiotherapy and subsequently they were subjected to radical neck dissection. Primary tumour and lymph nodes, dissected out of the specimen of block dissection were

subjected to detailed histopathological examination.

Observations : Out of 25 cases, 9 had carcinoma of buccal mucosa, 6 of lower lip, 4 of lower alveolus, 5 of tongue and only 1 of hard palate. Age distribution of these cases is shown in Table I. Majority of the cases

Table I

Age distribution of oral cancer

<i>Age group</i>	<i>No. of cases</i>
Less than 30 years	1
31 to 40 years	4
41 to 50 years	9
51 to 60 years	8
61 to 70 years	2
Above 70 years	1
Total	25

were in 5th and 6th decades. Fifteen cases were males and 10 females. Presenting features of the patients are shown in Table 2. Out of these 25 cases, 20 (80%) were chronic tobacco chewers and 3 were chronic tobacco smokers. Oro-dental hygiene was poor in 23 cases. Details of clinical exami-

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Table 2

Presenting features in oral cancer

<i>Presenting features</i>	<i>No. of cases</i>
Ulcer in oral cavity	25
Endophytic	23
Exophytic	2
Local pain	15
Salivation	14
Foul smell	16
Ankyloglossia	5
Trismus	10
Leukoplakia	3
Involvement of skin	7
Average duration	5.7 months

Table 3

Clinical examination of lymph nodes

<i>Lymph Node</i>	<i>No. of cases</i>
Palpable	21
No. of lymph nodes	1 to 8
Ipsilateral	14
Bilateral	6
Contralateral	1
Mobile	15
Fixed	6

nation of lymph nodes in the neck is shown in Table 3. Twenty one cases had palpable lymph nodopathy in the neck, which was thought to be metastatic. In carcinoma of lip, cheek and lower alveolus submandibular and submental group of nodes were involved whereas in carcinoma of tongue jugulodigastric and supraclavicular group of nodes were also involved. Clinical staging of tumour was done by T. N. M. system and 11 cases were found in stage III, 10 in stage IV and only 4 cases in stage II. There was no case in stage I of the disease. On histology

of primary tumour 2% were found to be squamous cell carcinoma, 9 in grade I, 10 in grade II, 5 in grade III and 1 case in grade IV of Broders's system of histological grading. Submandibular salivary gland was never found to have metastasis. Inflammatory infiltrate (Fig. 1) in the form of lymphocytes

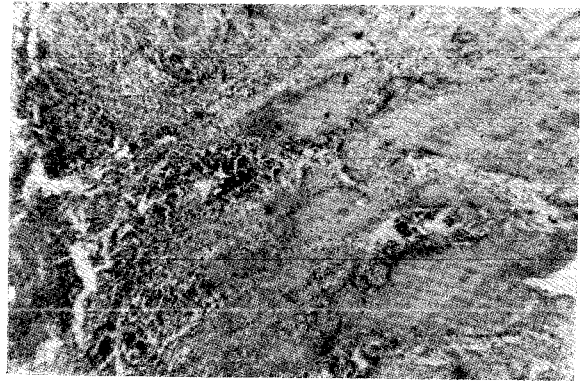


Fig. 1—Photomicrograph of oral cancer showing abundant inflammatory infiltrate.

and plasma cells in primary tumour was found to be minimal in 4 cases, moderate in 7, marked in 7 and absent in 7 cases. In grade I Carcinoma there was abundance of inflammatory infiltrate than in grade IV. On dissecting out the lymph nodes in the specimen of block dissection average number was found to be 9 nodes per specimen. Histological confirmation of metastasis in lymph nodes was observed in 14 cases (56%) (Fig. 2). According to site of primary tumour tongue showed 80% positive metastasis in lymph nodes of neck whereas in lower lid it was 66%, buccal mucosa 55% and lower alveolus 25%. Out of 21 clinically positive nodes for metastasis only 13 (62%) confirmed metastasis on histology whereas in 4 clinically negative metastasis 1 showed positive metastasis on histology (25%). When

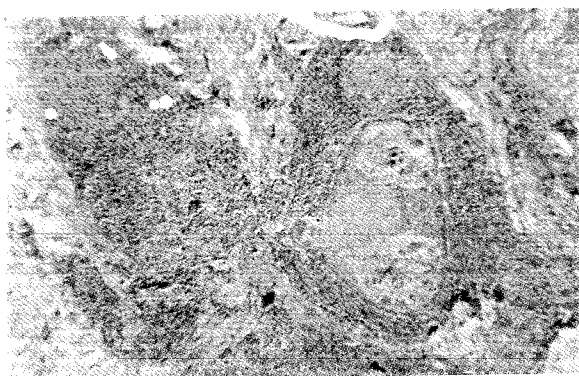


Fig. 2—Photomicrograph of lymph node showing metastasis from squamous cell carcinoma.

correlated with histological grade of primary tumour with positive lymph node metastasis it was found that grade IV carcinoma had 100% lymph node metastasis than grade III which had 60%, grade II 70% and grade I only 33% metastasis in cervical nodes. In the 14 cases of positive lymph node metastasis it was localised in lymph node in 5 cases, capsular invasion was seen in 4 cases and pericapsular involvement in 5 cases. Germinal centre hyperplasia was observed in 15 cases out of which 8 had metastasis. Sinus histiocytosis was seen in 8 cases of which 5 had metastasis and paracortical activity, in

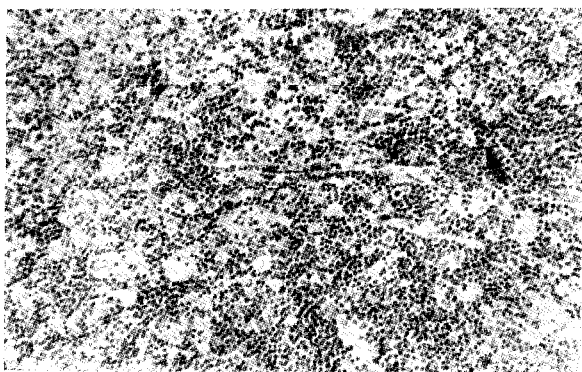


Fig. 3—Photomicrograph of lymph node showing marked paracortical activity.

the form of immunoblasts, was seen in 8 cases (Fig. 3) of which only 1 had metastasis in the lymph node.

Discussion

Oral cancer is a quite common disease in this part of the country and the probable cause may be chronic tobacco chewing. It has been observed that carcinoma developing in the oral cavity is by and large a squamous cell carcinoma which tends to metastasize in regional lymph nodes. Males in the age of 5th and 6th decade are affected more commonly than the females which may be due to the habit of chronic tobacco chewing, which is more common in males and it takes long time to produce its carcinogenic effect. Similar observations have also been made by Siddique et al (1964), Sexena et al (1965) Wahi et al (1965) and Khanna et al (1975). It has been observed in present series as well as by other workers also (Wahi et al 1965) that carcinoma of oral cavity is comparatively fast growing tumour and rapidly attains a large size making the stage III and IV on clinical examination which is not always related with the histologic grade of the tumour. The reliability of clinical examination of neck is between 70 to 80%. Cady and Catlin (1969) found that the reliability of physical examination is constant for jugular chain (70%) but it falls when submaxillary and submental triangles one involved (44%). The involvement of cervical nodes is more common in carcinoma of tongue than with other sites. Similar observations are also made by Mustard et al (1963). Lymph node metastasis is more common on ipsilateral than bilateral or contralateral sides. Wahi et al (1965) also observed similar pattern of

cervical node metastasis in oral cancer. High degree of inflammatory infiltrate in primary tumour is associated with well differentiated carcinoma. In our series 56% cases had histologically proved metastasis in cervical nodes. 80% of carcinoma of tongue had metastasis in cervical nodes. In the nodes which were examined for metastasis, we also observed reactive hyperplasia in the form of germinal centre hyperplasia, sinus histiocytosis and paracortical activity suggesting an immunological reaction which is demonstrated by Noone et al (1974) and Patt et al (1975) also. Among these observations we think that the paracortical activity is of great immunological value because, out of 8 cases showing marked paracortical activity only one had metastasis. Invasion of capsule and pericapsular area are seen in advanced

stage of disease and they are the signs of poor prognosis.

Summary

Present study is based on the observations of 25 cases of oral cancer. Males are affected more commonly in 5th and 6th decade. Clinical lymphadenopathy in the neck is observed in 84% of cases which was confirmed on histology in only 56% cases. Clinically the disease is more advanced than its histological grade. Inflammatory infiltrate in the primary tumour and germinal centre hyperplasia, paracortical activity and sinus histiocytosis in the lymph nodes are suggestive of immunological response against the tumour whereas capsular and pericapsular invasion of lymph nodes are suggestive of poor prognosis.

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