

# ANAPLASTIC SQUAMOUS CELL CARCINOMA OF THE MOUTH — A REPORT ON 100 CONSECUTIVE CASES

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## SUMMARY

*Squamous cell carcinoma is the commonest malignant tumour of the mouth (91 percent) in people living in Peninsular Malaysia. Since the histological grading of oral carcinoma is one of the several important factors to be considered in the long term survival of patients a more detailed study of anaplastic carcinoma of the mouth in 100 patients is made in this study. As reported in an earlier study the Chinese seem to be more prone to develop anaplastic carcinoma of the mouth. In contrast although oral carcinoma occurs most commonly in the Indians, the development of anaplastic carcinoma seems to be the least in them. The Indians seem to have a better host immune response to oral*

*carcinoma than the Chinese and the Malays occupy an intermediary position. The peak age incidence was between 51-70 years (50 percent). In descending order of frequency anaplastic carcinoma involved the gingiva (29 percent), buccal mucosa (22 percent), palate (20 percent), and tongue (16 percent). Further studies may help to formulate a more effective tailor-made regime of treatment for each individual oral carcinoma patient.*

## INTRODUCTION

Squamous cell carcinoma is the commonest malignant tumour of the mouth in people living in Peninsular Malaysia. It formed about 91 percent of all malignant oral tumours (Ramanathan and Ng, 1979). In a study of 898 oral carcinoma patients 31 percent occurred in the Indian female, 29 percent in the Indian male, 11 percent in the Malay female, 11 percent in the Malay male, 14 percent in the Chinese male and 4 percent in the Chinese female (Ramanathan and Lakshimi, 1976). The histological grading of carcinoma by race and sex showed that grade I or well differentiated carcinoma formed 83 percent in the Indian female, 77 percent in the Indian male, 71 percent in the Malay female, 66 percent in the Malay male, 60 percent in the Chinese female and 56 percent in the Chinese male. Grade III or anaplastic carcinoma formed about 1 percent in the Indian female, 2 percent in the Indian male, 5 percent in the Malay male, 8 percent in the Malay female, 13 percent in the Chinese male and 14 percent in the Chinese female. It would appear that well differentiated squamous cell carcinoma occurred more commonly in the females and anaplastic carcinoma was least common in the Indians

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and most frequent in the Chinese (Ramanathan and Lakshimi, 1976). Since the histological grading of oral carcinoma is one of the several important factors to be considered in the long term survival of patients a more detailed report of anaplastic carcinoma of the mouth is made in the study.

## MATERIALS AND METHOD

This study was based on the records of the Department of Stomatology, Institute for Medical Research, Kuala Lumpur and for the years 1967-1980. Only patients reported for the first time were included in this study. In all 100 patients were included in this study. For the anatomical charting of oral carcinoma the topographical classification of Roed-Petersen and Renstrup (1969) dividing the oral mucosa into 43 well-defined regions was used. For purposes of histological grading the WHO Histological Typing of Oral and Oropharyngeal Tumours was used (Wahi *et al*, 1971).

## RESULTS AND DISCUSSION

Table I shows the distribution of anaplastic carcinoma patients by race, sex and age groups. In descending order of frequency anaplastic carcinoma occurred most frequently in the Chinese male (28 percent), Malay female (18 percent), Indian female (18 percent), Chinese female (15 percent), Malay male (11 percent) and in the Indian male (10 percent). As reported in an earlier study (Ramanathan and Lakshimi, 1976) the Chinese seem to be more prone to develop anaplastic carcinoma of the mouth. In contrast though oral carcinoma occurs most commonly in the Indians. The development of anaplastic carcinoma seems to be the least in them. The Indians seem to have a better host immune response to oral carcinoma than the Chinese. In the Indians and Malays there were more females whereas in the Chinese there were more males. The peak age incidence was between 51-70 years (50 percent). It is also worth mentioning that all the eight patients below 30 years (8 percent) were either Malays or Chinese.

In descending order of frequency anaplastic carcinoma involved the gingiva (29 percent), buccal mucosa (22 percent), palate (20 percent) and tongue (16 percent). (Table II). Unlike an earlier study indicating an increased incidence of anaplastic carcinoma on the soft palate (67 percent) (Ramanathan *et al*, 1978) this study showed a higher frequency of anaplastic carcinoma involving the hard palate (62 percent). As reported earlier (Ramanathan *et al*, 1978) anaplastic carcinoma occurred most commonly on the posterior one-third of the tongue

TABLE I  
DISTRIBUTION BY RACE, SEX AND AGE GROUPS OF  
ANAPLASTIC CARCINOMA (1967-1980)

Age Group (Years)	Malays		Chinese		Indians		Total	Percentage
	M	F	M	F	M	F		
11 - 20	-	2	-	-	-	-	2	2%
21 - 30	1	1	3	1	-	-	6	6%
31 - 40	2	2	1	2	1	2	10	10%
41 - 50	1	3	2	-	2	6	14	14%
51 - 60	3	4	7	3	4	6	27	27%
61 - 70	3	2	13	-	3	2	23	23%
71 - 80	1	4	2	6	-	1	14	14%
81 - 90	-	-	-	3	-	1	4	4%
TOTAL	11	18	28	15	10	18	100	100%

M:F ratio: 0.6 : 1 1.9 : 1 0.6 : 1 = 1 : 1

(63 percent) in comparison to the anterior two-third of the tongue. In the posterior one-third of the tongue anaplastic carcinoma occurred almost exclusively in the males. In the Chinese male anaplastic carcinoma occurred most frequently in the gingivae, palate and tongue. In the Chinese female anaplastic carcinoma occurred about equally on the gingivae, buccal mucosa and the palate. In the Malay female anaplastic carcinoma occurred most frequently on the gingivae, palate and buccal mucosa. In the Malay male anaplastic carcinoma occurred most frequently on the gingivae. In the Indian female anaplastic carcinoma occurred most commonly on the buccal mucosa. In the Indian male anaplastic carcinoma affected the buccal mucosa, palate and tongue with about equal frequency. The variation in anatomical sites probably is due to the variation, frequency and intensity of oral habits among the races.

Anaplastic carcinoma presented more often as a growth (61 percent) than as an ulcer. In 76 percent of the patients the anaplastic carcinoma involved only one anatomical site at the time of clinical and histological diagnosis and in 13 percent it extended to involve three or more anatomical sites. The commonest symptoms among the patients in descending order of frequency were bleeding (29 percent), pain (29 percent), dysphagia (13 percent), loss of weight (8 percent), difficulty in chewing (8 percent), anaesthesia (4 percent), pathological fracture of the mandible (4 percent) and epistaxis (4 percent).

Future studies correlating histological grading of oral

TABLE II  
DISTRIBUTION BY ANATOMICAL SITES OF  
ANAPLASTIC CARCINOMA (1967-1980)

Anatomical Site	Malays		Chinese		Indians		Total	Percentage
	M	F	M	F	M	F		
Gingivae	12	7	11	5	—	2	37	28.9
Buccal Mucosa	1	4	2	5	4	12	28	21.9
Palate	3	5	8	5	3	2	26	20.3
Tongue	4	3	6	2	3	2	20	15.6
Floor of Mouth	—	2	5	—	—	1	8	6.3
Lip	1	—	—	1	—	1	3	2.3
Pterygomandibular Plica	1	3	—	—	1	1	6	4.7
Total	22	24	32	18	11	21	128*	100%
Percentage	17.2	18.7	25	14.1	8.6	16.4	100%	

\* The total number of anatomical sites exceeded the total number of patients for in some patients the carcinoma extended to involve more than one anatomical site.

carcinoma with T-lymphocyte counts, immunoglobulin studies, along with immunoresponse therapy such as with levamisole and with various treatment methods may prove valuable in the better understanding, treatment and long term survival of oral carcinoma patients. These studies may help to formulate a more effective tailor-made regime of treatment for each individual oral carcinoma patient.

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