ORAL CANCERS IN MALAYSIA AND NATIONAL ORAL CANCER CONTROL PROGRAMME

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ABSTRACT

Retrospective analysis of the 29 year biopsy records of the Division of Stomatology, Institute for Medical Research, Kuala Lumpur and preliminary oral cancer surveys in the various states in Malaysia revealed that oral squamous cell carcinoma represents the most commonly encountered malignancy in the oral cavity in this country. Of the 5480 cases of oral cancer retrieved from the biopsy service records, 4974 (90.8\%) were primary oral carcinomas. Malignant minor salivary gland tumours ranked as the second commonest oral cancer diagnosed and accounted for 248 cases (4.5\%). The other oral malignancies seen in decreasing order of frequency were 119 cases (2.2\%) of oral malignant lymphomas, 95 cases (1.7\%) of sarcomas, 30 cases (0.5\%) of oral malignant melanomas and 14 cases (0.3\%) of metastatic carcinomas. These oral cancers constituted 19.6\% of all biopsy specimens diagnosed in the Division of Stomatology, Institute for Medical Research, Kuala Lumpur.

In Malaysia, about 70\% of oral carcinoma present to the clinic at an advanced stage of T3 or 4. Indians form about 10\% of the population but a disproportionate 52\% of oral cancers are seen in them. These cancers are often associated with betel quid/tobacco chewing, heavy smoking and alcohol consumption and individuals with these habits constitute distinct high risk groups.

As these cancers are preventable and amenable to early detection, a National Oral Cancer Control Programme aimed at 1. Primary Prevention to advise and monitor patients to stop, reduce or modify these habits; 2. Early Detection by oral screening/case detection of white/red lesions, ulcers, restricted mouth opening and growth and 3. Downstaging of 70\% T3 or T4 oral cancers to 50\% in 2 years would be cost-effective if targeted at high risk groups.

INTRODUCTION

Oral cancer can arise from the various soft and hard tissues present in and around the mouth. As it can be fatal, it is a subject of much research especially in high incidence countries namely the Indian subcontinent as well as parts of Southeast Asia, where it pose a major health concern. In Malaysia, oral cancer is also a serious health problem. Retrospective studies and preliminary surveys\textsuperscript{1-12} have revealed that the majority of oral cancer seen were oral carcinomas and a disproportionate number (52\% or more) of these cases are Indians, who form only about 10\% of the local racial population\textsuperscript{6}.

The Division of Stomatology, Institute for Medical Research, Kuala Lumpur, first established in the year 1967, is the centre that provides Oral Pathology diagnostic services to all Ministry of Health hospitals and dental clinics throughout Malaysia.
FINDINGS

The types and frequency of the oral malignant tumours diagnosed in the Division of Stomatolgy, Institute for Medical Research, Kuala Lumpur, from the years 1967 to 1995 are shown in Table 1.

Table 1 Frequency of Oral Cancers in Malaysia (1967 - 95)

<table>
<thead>
<tr>
<th>Type</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carcinomas</td>
<td>4974</td>
<td>90.8</td>
</tr>
<tr>
<td>Malignant minor salivary gland tumours</td>
<td>248</td>
<td>4.5</td>
</tr>
<tr>
<td>Malignant lymphomas</td>
<td>119</td>
<td>2.2</td>
</tr>
<tr>
<td>Sarcomas</td>
<td>95</td>
<td>1.7</td>
</tr>
<tr>
<td>Malignant melanomas</td>
<td>30</td>
<td>0.5</td>
</tr>
<tr>
<td>Metastatic carcinomas</td>
<td>14</td>
<td>0.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5480</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Oral carcinomas

Oral carcinomas comprised 90.8% of all types of oral cancers (Table 1). The most common histological entity was oral squamous cell carcinoma (SCC) where the well differentiated form was the most frequently encountered (Table 2). For all types of SCC (excluding verrucous carcinoma), demographic analysis revealed a late adulthood onset presentation with about 71.1% of cases occurring between the fifth and seventh decades of life. There were 52.1% Indians and a total of 52.5% males were recorded. When considered separately, well differentiated SCC comprised 62.5% Indians, majority of which were females (60.6%). In contrast, for anaplastic carcinoma, there were 43.4% Chinese and of these 63.8% were males. The general observation was that SCC among the Indians showed a female predilection for all the 4 histological variants, whilst SCC in the Chinese exhibited an overall male predominance (male : female ratio, 2:1) regardless of their histologic forms. In the

<table>
<thead>
<tr>
<th>Type</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>WD SCC</td>
<td>2855</td>
<td>57.4</td>
</tr>
<tr>
<td>MD SCC</td>
<td>1423</td>
<td>28.6</td>
</tr>
<tr>
<td>Anaplastic carcinoma</td>
<td>159</td>
<td>3.2</td>
</tr>
<tr>
<td>Verrucous carcinoma</td>
<td>112</td>
<td>2.3</td>
</tr>
<tr>
<td>PD SCC</td>
<td>95</td>
<td>1.9</td>
</tr>
<tr>
<td>Spindle cell carcinoma</td>
<td>27</td>
<td>0.5</td>
</tr>
<tr>
<td>Undifferentiated carcinoma</td>
<td>8</td>
<td>0.2</td>
</tr>
<tr>
<td>Others</td>
<td>295</td>
<td>5.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4974</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

WD – well differentiated
MD – moderately differentiated
PD – poorly differentiated

Malays however, except for spindle cell carcinoma which showed an even sex distribution, the other histological types of SCC exhibited a slight to strong female predilection (Male : female ratio ranged from 1:1.2 to 1:2).

Oral verrucous carcinoma accounted for about 2.3% of all oral carcinomas diagnosed in this department (Table 2). A mean age of 59 years was recorded whilst a peak incidence in the sixth decade of life was observed for all the races combined. About 63.3% of cases were Indians and the overall male to female ratio was 1:1.3. All 6 cases of verrucous carcinomas recorded in Chinese were males.

A recent nationwide survey of oral mucosal lesions in adults disclosed that these lesions were more prevalent in other Bumiputra subjects and Indians9. In case detection programmes carried out in some states in Malaysia, oral precancers namely leukoplakia, erythroplakia, speckled leukoplakia, lichen planus and submucous fibrosis were also more frequently detected in other Bumiputras and Indians, and their prevalences ranged from 5.7 % to 41%13-15.
National oral cancer control programme

Oral carcinomas comprised 90.8% of all types of oral cancers in Malaysia. About 70% of oral cancer cases present only at an advanced stage of T3 or T4. The Indians form about 10% of the population in Peninsular Malaysia but a disproportionate 52% of oral cancers are seen in them. The oral cancer and precancer are frequently associated with betel quid/tobacco chewing, heavy smoking and alcohol, and individuals who indulge in these habits constitute distinct high risk groups.

In Malaysia, oral cancer control programme can be achieved in a cost-effective and efficient manner with the following specific objectives:

1. **Primary Prevention** - to advise and monitor patients to stop, reduce or modify these high risk oral habits.

2. **Early Detection** - by case detection/oral screening particulary targeted at the high risk groups who are the Indians in Peninsular Malaysia and other Bumiputras in Sabah and Sarawak who partake in these oral habits.

3. **Downstaging** - of 70% T3 or T4 oral cancers to 50% in 2 years

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REFERENCES


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