DELAY IN DIAGNOSIS OF ORAL CANCER IN MALAYSIA: A STUDY OF FIVE CENTRES.

ABSTRACT

The diagnosis of oral cancer have been variously reported as being due to delay by clinicians, patients or both. The purpose of this study was to evaluate the referral pattern of 65 patients eventually diagnosed as having oral squamous cell carcinoma. The results showed that 50% of the patients delayed seeking professional help for more than 3 months after being aware of the lesion. The majority of the patients consulted medical practitioners as the first source of help. The mean clinicians' and patients' delay were 10.3 weeks and 28.9 weeks respectively. Dental practitioners showed a tendency to refer on more advanced lesions compared to the medical practitioners. The findings raise the concern that lack of patients' awareness, misdiagnosis by clinicians and late detection by dental practitioners prevail thus calling for urgent measures towards early detection of the disease.

Key Words: oral carcinoma - detection - Malaysia

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Introduction

Oral squamous cell carcinoma represents a major form of cancer in Asia and the parts of the Pacific Islands. Like India and most countries in Southeast Asia, in Malaysia, SCC remains the commonest malignant tumour affecting the oral cavity. The incidence rate of oral SCC in Malaysia is about 125 to 150 cases a year (1,2). Most patients present with more advanced lesions (2). Langdon and workers (3) have shown that even in the UK, where the incidence of oral SCC is lower, half of the patients presented with advanced lesions.

Prognosis and long-term survival of patients with SCC is dependent on early recognition of the disease which otherwise has a high mortality rate (4,5). There have been various studies done reporting the pattern and sources of delay in diagnosis of oral SCC(6-8) These studies pointed out delays attributed to failure to recognise or suspect malignant disease by physicians, dentists and patients.

In a developing country like Malaysia, community health education and health services are being constantly improved. Considering the rather high incidence of oral SCC in the country and its late presentation, there is a need to study the pattern of the disease with the aim of improving its prognosis and long-term survival.

The purpose of the present study therefore, was to study the pattern of oral SCC among the Malaysian population and to investigate the referral patterns by medical and dental practitioners of patients eventually diagnosed as having oral SCC.

Materials and Methods

In a period from November 1994 to April 1995, 65 consecutive patients with histologically proven primary oral SCC which have not been treated, have been examined at 5 specialist centres in the country. These five centres were chosen to represent strategic locations in Malaysia with the aim of providing a representative sample. Two centres were from the West Coast of Peninsular Malaysia, two centres from the East Coast and one centre from East Malaysia.

These patients had been referred by general practitioners and specialists to the Oral and Maxillofacial Surgery Unit of these centres. The following parameters were evaluated : 1) age and gender, 2) race, 3) TNM classification, 4)histological grading, 5) source of delay, 6) duration and cause of delay.

Patients presenting with recurrences were not included in this study. The WHO histological typing of oral and

1. Tumour size	No. of cases (%)
T1	9 (13.8)
T2	29 (44.6)
T3	15 (23.1)
T4	12 (18.5)
2. Cervical nodes	
Clinically positive	50 (76.9)
Clinically negative	15 (23.1)
3. Histopathology	
Well-differentiated SCC	41 (63.1)
Moderately-differented SCC	4 (6.2)
Undifferentiated SCC	2 (3.1)
Level unrecorded	5 (7.7)

Table 1. Presentation of tumour

Reason	Number of patients
Asymptomatic	21 (36.2)
Hope of healing	19 (32.8)
Fear of dianosis	(3 (5.2)
Others (eg transport, finance)	6 (10.3)
Unaware of lesion	4 (6.9)
No reason given	5 (8.6)
Total	58

Table 2. Reasons for delay by patients

Reason	Number of patients
Pain	38 (65.5)
Non-healing	14 (24.1)
Dysfunction	3 (5.2)
Others (eg family)	3 (5.2)
Total	58

Table 3. Reasons for seeking treatment by patients

Reason	Number of patients
Awaiting biopsy report	45 (69.2)
Misdiagnosis	15 (23.1)
Referral appointment	2 (3.1)
Late retrieval of biopsy report	2 (3.1)
Inadequate biopsy	1 (1.5)
Total	65

Table 4. Reasons for clinician's delay

Reference (no.)	No. of patients	Delayed > 3 months
Pogrel, 1974 (12)	130	52%
Ramanathan et al., 1976 (1)	61	65.5%
Cooke et al., (1977 (9)	50	46.2%
Rich et al., 1984 (14)	244	60%
Present study	65	50%

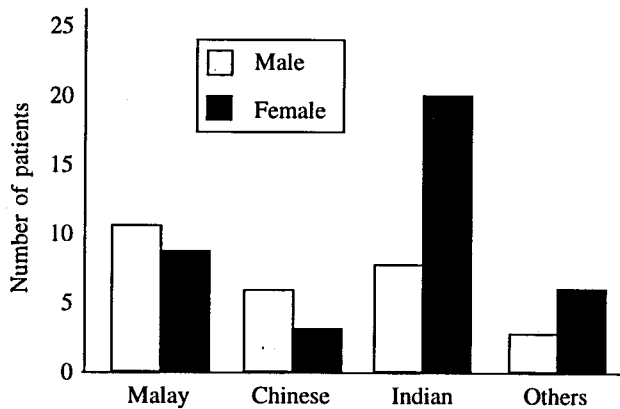Table 5. Delays in patients seeking treatment.
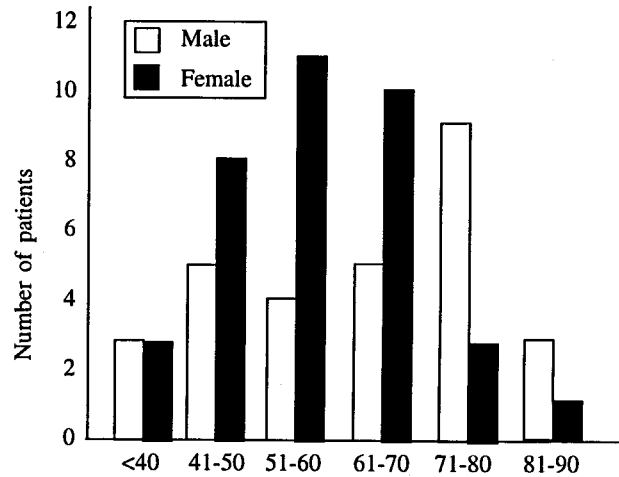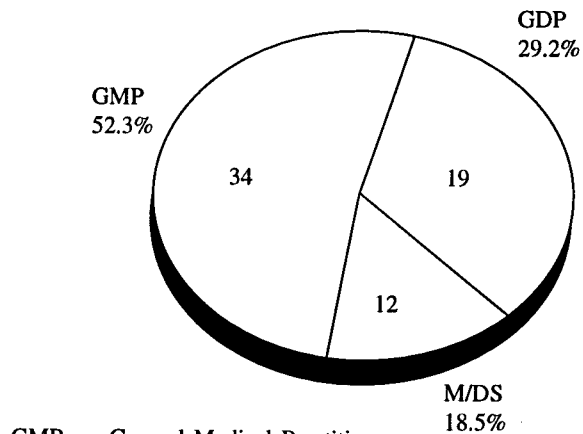

Fig. 1: Sex and race distribution

Fig. 2: Sex and age distribution

GMP - General Medical Practitioners
GDP - General Dental Practitioners
M/DS - Medical/Dental Specialists
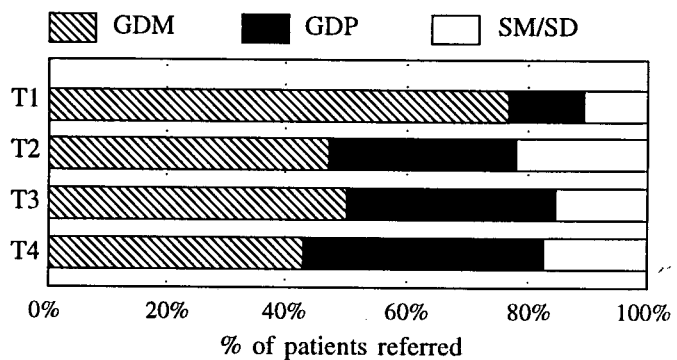
Fig. 3. Sources of referral

Fig. 4: Size of lesions referred by groups of clinicians ie. GMP, GDP, SM/SD

GMP = general medical practitioners; GDP = general dental practitioners; SM = medical specialist; SD = dental specialist. T1 = lesion measuring < 2cm; T2 = 2 to 4cm; T3 = >4cm, T4 = involvement of underlying/adjacent structures.

oropharyngeal tumours was employed in the histological grading of tumours. Delay by patients was defined as the time from the first onset of the signs and/or symptoms of the disease to the time of the patient's first consultation, either to the doctor or dentist. Delay in diagnosis was defined as the time period which elapsed from the first consultation until the final or definitive diagnosis. The data collected were analysed and are summarized in Figures 1 and Tables 1-5.

Results

Out of 65 patients, 35 were females and 30 were males. Fig. 1 shows the sex and race distribution of the patients. Of the 35 females, 20 (57.1%) were made up of Indians; the others were rather evenly distributed among the other ethnic groups. The patients were made up of the middle age groups ie. the 5th to the 8th decades Fig. 2).

Clinical examination showed that 44.6% of the patients present with T2, followed by T3 (23.1%) and 18.5% and 13.8% in T4 and T1 lesions respectively. Clinically positive cervical lymph nodes were present in 76.9% of the patients. A large majority of the lesions were histologically classified as well-differentiated squamous cell carcinoma (53.1%) (Table 1).

The mean duration taken before patients sought professional attention was 28.9 weeks with a range of 1 week to 5 years. Delays were present in 58 patients and out of this, 29 (50.0%) took more than 3 months before seeking professional attention. In the population who delayed, there was. only a slight difference in number between the sexes (11 males and 13 females). However, there was no difference in the mean duration of delay between the males and females. The common reasons for the delay are summarised in Table 2. Table 3 shows that most patients (65.5%) eventually sought treatment due to pain.

The mean duration taken by clinicians before reaching a definitive diagnosis was 10.3 weeks with a range of 10 days to 3 years. Most patients were diagnosed within 2 weeks of being seen by the clinician. Two weeks constitute the average time taken for a clinician to receive the results of the biopsy in most of the centres in this study. If this figure is eliminated, the mean delay by the clinician due to other reasons would be 16.5 weeks (range: 3 weeks to 3 years). The reasons for the delay are summarised in Table 4.

A majority of the patients (52.3%) was referred by the general medical practitioners followed by the general dental practitioners(29.2). A small number of patients (18.5%) were referred by other medical and dental specialists (Fig. 3).

Figure 4 correlates the sources of referrals to the lesions presented by the patients.The general medical practitioners showed a tendency to refer more patients who have T1 and T2 lesions. Patients with T2 and T3 lesions however, were referred in approximately equal proportions by both the general medical and dental practitioners.

Discussion

The mean delay by patients in seeking treatment was about 7 months. Table 5 shows the findings of previous studies on patients who delayed seeking professional attention for more than 3 months. These studies showed figures ranging from 46%[9] to as high as 68%.[10] The figure of 50% in this study is in agreement with other previous studies (1,9-14). Ramanathan et all had a sample of 61 males in their study. Of these 65.6% was found to delay more than 3 months before seeking professional helps The number of males in the present study was too small to make a meaningful comparison. However, this present study has shown that a large number of patients continue to hesitate seeking professional help for their lesions. Although this sample was relatively small, findings in the present study may reflect a continued unawareness of oral cancer in the community.

The delay in reaching a definitive diagnosis by the clinician lead to inappropriate treatment such as medication, denture adjustment and extractions and reassurances. This trend was also observed by other workers (6,15) who observed that medical practitioners mainly prescribed antimicrobials especially antifungals whilst the dental practitioners adjusted the dentures and extracted teeth.

Previous studies (6,9,13) have shown that more oral cancer patients were referred by dental practitioners than by medical practitioners with the latter more likely to see advanced tumours. These studies also pointed out that 75% of oral cancer patients encountered and referred by general medical practitioners had T4 primary tumours whereas approximately 60% of the patients referred by general dental practitioners had T1 and T2 lesions. Scully et al (6) mentioned that patients referred by general medical practitioners were generally older than those referred by general dental practitioners thus suggesting that younger patients were more aware of the role of the dental practitioner and the disease itself. This has been postulated as part of the reason for the more advanced tumours seen by the general medical practitioners.

In the present study, as illustrated in fig.3 most of the patients were referred by general medical practitioners rather than dental practitioners. This could be due to patients viewing the role of physicians in a different manner as they do the dentists, for a non-dental problem such as an oral ulcer is concerned.

Figure 4 illustrates tile size of the cancer lesion in relation to referrals by dental and medical practitioners. As shown, the medical practitioners refer on smaller lesions (T1 and T2) as compared to dentists. This trend differs from that of other workers (6,8,9,13). These findings can be explained by two possible reasons. First, there appear to be a difference in the degree of suspicion and diagnostic skill of the clinicians, thus highlighting some notable gaps in the dental and medical practitioners' knowledge of oral cancer. Alternatively, there could be a difference in the dental and medical practitioners; attitudes and behaviours towards the role and

responsibility to their patients in detecting oral cancer in this country. A formal study into the clinicians knowledge of oral cancer and their attitudes and beliefs will be helpful in enlightening the cause for this discrepancy.

Five-year survival rates (4,5) have been shown to be dependent upon early recognition of the malignant disease. Previous studies (6,13) including the present study have demonstrated that the greatest delay in presentation of oral cancer was caused by patients in seeking professional help. Clinicians on the other hand were also responsible for delays in diagnosis of these palients.

This is a great cause for concern for it signifies a lack of patient awareness and the prevalence of inappropriate clinical management. Early stage cancers have been shown to have the best outcome (16), there- fore it emphasises the importance of early detection of the lesion. Hence patients, especially the older age-group including those patients with higher risks (16) should be encouraged to visit the clinician regularly.

Of equal importance is that clinicians especially the dental practitioners should assume a more responsible role in the early delection of oral cancer, as a majority of their patients consists of those in the younger age group. Needless to say, intensive public awareness campaigns and continuing medical and dental education programmes aimed at reducing or eliminating delays in presentation. referral and diagnosis or oral cancer are of prime importance.

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