

# ORAL PRECANCER AND CANCER SCREENING PROJECT IN KOTA BELUD, SABAH.

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## ABSTRACT

203 subjects from six villages in the Kota Belud district were screened for oral precancer and cancerous lesions. 25 (12%) of subjects were found to have lesions. The lesions detected were erythroplakia, leukoplakia, speckled leukoplakia and lichen planus. Patients with lesions were referred to the Specialist Dental Clinic in Kota Kinabalu for further management. The most common lesion was erythroplakia (44%). The highest number of lesions were found in the Illanun community (31%). Lesions were most prevalent in the over 50 year old age group (44%) and were more common in females (68%).

## INTRODUCTION

Over the years it had been noted that a large proportion of patients presenting to the Specialist

Dental Clinic, Queen Elizabeth Hospital, Sabah with oral cancer were from the Kota Belud district. The patients frequently presented with T4N1 or N2 lesions. This seemed to suggest that Kota Belud might have a high number of people at risk of developing oral cancer. With this in mind it was decided that it might be useful to conduct a screening exercise in the Kota Belud district with the aim of detecting oral precancer and cancerous lesions. This was based on the hypothesis that early detection of cancer will allow effective treatment to be instituted early in its course and will reduce overall morbidity and mortality. Other aims of the project were to educate the public regarding oral cancer and to initiate some behaviour modification in these high risk group.

## MATERIALS AND METHODS

Six villages in the Kota Belud district were selected to participate in the screening exercise. These villages were chosen as some residents from these villages had in the past presented with oral cancer at the Specialist Dental Clinic. In one village (Kg. Siasai) two siblings were diagnosed with advanced oral cancer.

The villages chosen were ;

01. Kg. Taburan
02. Kg. Siasai
03. Kg. Timbang Dayang
04. Kg. Sembirai
05. Kg. Kesapang
06. Kg. Tamau

Permission and co-operation was sought from the village heads to assist in organising the screening exercise. As an incentive to the villagers, free dental examination and tooth extractions were carried out. Two whole days were allocated for the exercise.

203 adults above 20 years were screened. Examination of the oral cavity was done with a

torchlight and wooden spatula. Each region of the oral cavity (lips, buccal mucosa, gingivae, tongue, floor of mouth and palate) were examined systematically for the following lesions ;

- leukoplakia
- erythroplakia
- lichen planus
- speckled leukoplakia
- submucous fibrosis
- ulcers
- growths

Two examiners were involved and inter-examiner calibration was carried out prior to the actual screening. Findings were recorded on a form provided by the Division of Stomatology, Institute of Medical Research for such a purpose. Referral letters were given to patients with lesions for further management at the Specialist Dental Clinic, Queen Elizabeth Hospital, Kota Kinabalu.

## RESULTS

A total of 203 subjects were screened from the six villages, comprising 102 males and 101 females, out of which 25 (12 %) were found to have lesions. These subjects were given referral letters for further management. However only seven patients kept their follow-up appointments. A total of nine biopsies were performed. The biopsy specimens were sent to the Stomatology Department, Institute of Medical Research, Kuala Lumpur (Table 4) .

Based on ethnic distribution, 31 % of Illanuns, 11 % of Bajaus and 8.5 % of Kadazans had lesions (Table 1). Erythroplakia was the most prevalent lesion (44 %) followed by leukoplakia (36 %), speckled leukoplakia (4 %) and lichen planus (4 %). Lesions were most prevalent in the above 50 year old age group (44 %) (Table 2) and were more common in females (68 %) (Table 3) .

## DISCUSSION

The primary aim of this project was not to carry out an epidemiological survey on the incidence or prevalence of oral precancer and cancer in a population, but to obtain a general overview of the situation. Thus no statistical analysis of the data was carried out apart from descriptive statistics. This project could serve as a pilot study to determine is a

further formal study is justified.

As oral cancer is found mostly in the older age group, only adults above 20 years were screened, with the hope of detecting lesions early and instituting preventive and/or treatment measures.

The screening project required very simple and basic equipment and instruments like ordinary chairs (does not even have to be a portable dental chair) , torchlights, wooden spatulas' and gloves. Any suitable open area can be used and all our examinations were carried out in the community halls. Manpower requirements are minimal with one examiner and an assistant to record the data. If hard pressed the recording can also be done by the examiner.

One of the key factors affecting the survival rate in oral cancer patients is the stage of the disease at presentation. As a rough guide, males with early stage disease have a 90 % one year survival rate which decreases to below 45 % with late stage disease. Therefore screening projects should be carried out more often, especially targetted to areas with high risk patients.

The poor response to referral for further management may be attributed to a few factors namely;

1. The time, distance and finance involved in travelling to Kota Kinabalu. Most of the subjects concerned are farmers and a whole day spent away from the farm could mean substantial loss of income.
2. The general attitude of the people who feel that the disease is not serious, especially in the absence of symptoms like pain.

## CONCLUSION

This simple and 'low tech' project revealed precancerous lesions in 12 % of the population. These projects can be useful and beneficial in the early detection of precancerous and cancerous lesions, and will enable early intervention and treatment, thus reducing morbidity and mortality associated with these cases.

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**Table 1 : Distribution of lesions according to ethnic group**

<i>Lesion</i>	<i>Frequency</i>	<i>Bajau</i>	<i>Kadazan</i>	<i>Illanun</i>	<i>Others</i>
Erythroplakia	11	9	0	2	0
Leukoplakia	9	5	1	3	0
Speckled Leukoplakia	1	1	0	0	0
Lichen Planus	1	0	1	0	0
> one lesion	3	2	1	0	0
<b>TOTAL</b>	<b>25</b>	<b>17</b>	<b>3</b>	<b>5</b>	<b>0</b>

**Table 2 : Distribution of lesions according to age**

<i>Lesion</i>	<i>Frequency</i>	<i>20-29 yr</i>	<i>30-39 yr</i>	<i>40-49 yr</i>	<i>&gt; 50 yr</i>
Erythroplakia	11	2	3	3	3
Leukoplakia	9	1	2	6	0
Speckled Leukoplakia	1	0	0	1	0
Lichen Planus	1	0	0	1	0
> one lesion	3	0	1	0	2
<b>TOTAL</b>	<b>25</b>	<b>2</b>	<b>5</b>	<b>7</b>	<b>11</b>

**Table 3: Distribution of lesions according to gender**

<i>Lesion</i>	<i>Frequency</i>	<i>Male</i>	<i>Female</i>
Erythroplakia	11	2	9
Leukoplakia	9	9	3
Speckled Leukoplakia	1	0	1
Lichen Planus	1	0	1
> one lesion	3	0	3
<b>TOTAL</b>	<b>25</b>	<b>8</b>	<b>17</b>

**Table 4: Histopathology results**

<i>Histopathology</i>	<i>No. of lesions</i>	<i>Site</i>
Leukoplakia	2	left buccal mucosa
Candidal leukoplakia	2	right buccal mucosa
Speckled Leukoplakia	1	right retromolar area
	1	right buccal mucosa
Erythroplakia	2	right buccal mucosa
Lichen Planus (erosive)	1	right gingivae

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