

# ORAL CANCER – ARE THE DENTISTS DOING ENOUGH FOR ITS PREVENTION AND EARLY DIAGNOSIS? — A STUDY

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## ABSTRACT

*The aim of this study was to determine whether and to what extent the dental profession is helping in the prevention and early diagnosis of oral cancers. Data were collected by distributing self administered questionnaires among two hundred randomly selected dentists of Rawalpindi and Islamabad to know what role they play in the prevention and early diagnosis of this deadly disease.*

*More than half (52%) of the dentists did not ask or asked rarely about the use of tobacco, alcohol and other risk factors and only about a third (34%) advised and helped their patients to quit these habits. Only 22% of the dentists regularly examined the entire oral mucosa of all their patients and even fewer (12%) considered the possibility and then searched for a coincidental oral cancer. Only about 06% took biopsies of suspicious lesions regularly. The findings of this study indicate that the dentists of this region need to do a lot more for the prevention and early diagnosis of oral cancer.*

**Key words:** Oral cancer, Prevention, Diagnosis

## INTRODUCTION

Oral cancer is a global problem with over 275,000 new cases reported every year worldwide.<sup>1,2</sup> In some Asian countries, including Pakistan it is one of the few most common human cancers.<sup>3</sup> It is functionally disabling, cosmetically disfiguring and carries a poor prognosis with an overall five year survival around 50%.<sup>4</sup>

Oral squamous cell carcinoma has known etiology. The vast majority of these lesions are caused by tobacco products, alcohol consumption, dietary deficiencies and excessive exposure to sunlight.<sup>5,6,7</sup> Prevention is thus possible in many cases by creating awareness regarding these risk factors and by advising public against the use of tobacco and alcohol, taking a balanced diet and protection against sunlight. Similarly, Oral cancers have known signs and symptoms and progress over months and years. Because it affects an easily accessible, visible and

palpable part of body, early diagnosis is possible and should be the routine. It is unfortunate that oral cancer has such a high incidence and that most of these cancers are diagnosed late in the course of their development.

Lack of awareness, illiteracy, poverty, and unavailability of specialist services are some of the major causes of the high incidence and late diagnosis in Pakistan. While all health care providers can play a role, the dental profession is directly responsible for the oral health and prevention, diagnosis and timely management of oral and dental diseases including oral cancers.

This study was carried out to determine what role the dentists of Rawalpindi and Islamabad are playing in the prevention and early diagnosis of oral cancer. While such studies have been carried out in developed countries and are indicative of inadequacies and deficiencies on the part of dentists, no such study

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TABLE 1: ORAL CANCER PREVENTION / DIAGNOSIS PRACTICES OF DENTISTS

Variable	Always	Frequently	Rarely	Never	Total
History of Tobacco / Paan / Alcohol / etc	44 (26%)	38 (22%)	54 (32%)	34 (20 %)	170
Help Patient Quit Tobacco / Alcohol / etc	24 (14%)	34 (20%)	27 (16%)	85 (50%)	170
Examination of the Entire Head & Neck	11 (06 %)	17 (10 %)	25 (15 %)	117(69%)	170
Examination of the Entire Oral/Pharyngeal Mucosa	38 (22 %)	30 (18 %)	34 (20 %)	68 (40 %)	170
Consider & Look for Coincidental Oral Cancer	20 (12%)	30 (18%)	25 (15 %)	95 (55%)	170
Biopsy / Refer for Biopsy	11 (06 %)	20 (12%)	24 (14%)	115 (68%)	170

has ever been carried out in Pakistan so far.<sup>8,9</sup> It was hoped that this study will not only document the current practices of dentists but the questionnaire will also act as a refresher and remind the dentists the role they can play in the prevention and diagnosis of oral cancers.

#### METHODOLOGY

This study was conducted on public and private sector dental surgeons of Rawalpindi and Islamabad. Both male and female dentists registered with Pakistan Medical and Dental Council (PMDC) and willing to participate were eligible for inclusion in the study. A purpose designed questionnaire to assess the oral cancer prevention and diagnosis efforts was distributed among 200 randomly selected dental practitioners. Each questionnaire included questions regarding the age and gender of the dentist, the years of experience of the clinician, the average number of patients seen daily, how frequently the clinician asked about tobacco, alcohol, paan etc. habits, how frequently an effort was made to make these patients quit their habits and how frequently a systematic clinical examination including the head and neck region and the entire oral cavity was performed to search for the early and as yet unnoticed oral cancers. The questionnaires were personally distributed by the authors among the clinicians, completed on spot and collected the same day. Any dentist unable to complete the questionnaire on the same visit was revisited the next day and a third time after a week to collect the completed questionnaire. Dentists who had not completed the questionnaire by then were excluded from the study. Confidentiality was maintained at all times during the study.

The results of the study are given in terms of simple percentages.

#### RESULTS

A total of 200 questionnaires were distributed among dentists of Rawalpindi and Islamabad of which 170 were returned complete and suitable for inclusion in this study (85% response rate). Of the 170 dentists, 102 were males (60%) and 68 were females (40%).

More than half of the dentists (52%) never asked or asked only rarely about the tobacco / alcohol habits. Only about a third (34 %) always or almost always advised and helped their patients to quit these habits. Twenty two percent of the dentists always examined the entire oral mucosa of their patients. Only 12 % considered the possibility of oral cancer and specifically looked for it. Even fewer dentists (06 %) took biopsies or referred to a consultant when a lesion was seen. Details of the results of different components of the questionnaire are given in Table 1.

#### DISCUSSION

With known and avoidable etiology, oral cancer should be a rare disease. This is not the case. On the contrary, it is common around the world and specifically so in the South East Asia. While there is lack of public awareness, the oral health care workers do know that use of tobacco in various forms and alcohol are the main risk factors. It is by dissemination of this knowledge and advising public against use of these carcinogens that the health care workers can help in prevention of oral cancers. Similarly by diagnosing oral

cancers early, dentists can prevent much of the morbidity and mortality associated with oral cancers.

The results of this study indicate that only about one fourth (26 %) of the dentists asked all their patients about tobacco /betelnut chewing and/or alcohol habits and even fewer (14 %) advised and helped all their patients to quit these habits. This, and the findings of a similar study by Mumtaz et al indicate that the dentists in Rawalpindi and Islamabad do not ask about tobacco and alcohol habits as frequently as those reported in other studies.<sup>10</sup> Even these other studies show that dentists do not take part in the tobacco / alcohol prevention and cessation activities as frequently and effectively as they should and as physicians do.<sup>11-14</sup> In short, Oral healthcare workers are not doing enough for the primary prevention of oral cancers.

Once oral cancer does develop, it must be diagnosed early for its treatment to be effective. Early diagnosis and stage at initial presentation are in fact the most significant factors affecting survival in oral cancer. Thus the five years survival for a localized stage I lesion is 80% that declines to 50.7 % with regional spread and deteriorates further to a dismal 29.5 % with distant metastasis (stage IV disease).<sup>15</sup>

Early diagnosis is possible in majority of the patients by simple diagnostic tools including health history, specifically identification of risk factors, and examination of the oral mucosa for suspicious lesions.<sup>8</sup> The early signs / symptoms that should make a dentist suspicious include white or red lesions anywhere in the mouth, non-healing oral ulcers, swelling / lumps and otherwise unexplained bleeding in the mouth. Signs and symptom of advanced oral cancer include otherwise unexplained tooth mobility, anesthesia / paresthesia and neck swellings. All such lesions should be subjected to histopathological evaluation or referred for specialist opinion. Despite this simple and minimally invasive nature of the search for oral cancer, late diagnosis is universal, affects a significant number of patients around the world and this trend seem to continue in future.<sup>16</sup>

The results of this study indicate that dentists of Rawalpindi and Islamabad do not make serious efforts to diagnose oral cancers early. It is therefore, not surprising that most oral cancers are diagnosed late with significantly poorer five years survival.

Oral cancer is one of the few oral diseases that is preventable and easily detectable and still claims hundreds of thousands of lives every year around the

world. Dentists can play a very significant role in the prevention, early diagnosis and overall management of this fatal disease.

## CONCLUSION

Dentists need to do a lot more to educate patients about oral cancer risk factors and to advise and assist them to refrain from or quit tobacco, alcohol and betelnut chewing habits. In addition dentists should perform cancer specific examination of the oral mucosa of their patients regularly and routinely.

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