

Assess the Role of Dental Surgeons in Prevention and Early Diagnosis of Oral Cancers

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ABSTRACT

Objective: To determine the role of dentists in early diagnosis and prevention of oral cancers.

Study Design: Observational / descriptive study.

Place and Duration of Study: This study was conducted at the Islam dental College Hospital, Sialkot and various Dental Clinics in Sialkot region during February and March 2017.

Materials and Methods: A questionnaire was designed and distributed among the dentists working in the Islam Dental College hospital as well as in the Sialkot district region to know what role they play in the prevention and early diagnosis of this deadly disease.

Results: Only 18% of the dentists thoroughly examined the entire oral mucosa of their patients. More than sixty percents (60%) of the dentists ask about the use of tobacco, alcohol and other risk factors and only 55% advised and helped their patients to quit these habits. Also about 40% dentists did not ask or asked rarely about the use of cancer risk factors. Even fewer 9% considered the possibility and then searched for incidental finding of oral cancer of which only 6% dentists took biopsy or specialist consideration to confirm the finding of suspicious lesions.

Conclusion: The results of this study indicate that dental surgeons need to do more for the prevention and early diagnosis of oral cancers.

Key Words: Oral Cancer. Diagnosis, Prevention.

Citation of articles: Zafar S, Rashid S, Javed D, Rizwan M. Assess the Role of Dental Surgeons in Prevention and Early Diagnosis of Oral Cancers. Med Forum 2018;29(1):65-67.

INTRODUCTION

The incidence of oral cancers especially the squamous cell carcinoma accounts for 3% of all the cancers worldwide¹. Most of the cancer cases are found in the developing countries like Pakistan, Brazil and India and one developed country; France. Smoking, pan chewing and alcohol consumption makes the most recognized risk factor for such cases. Betel quid and smokeless tobacco chewing are also important risk factors in some populations^{2,3} and human papillomavirus (HPV) infection appears to be a risk factor for younger populations⁴. Even though the oral cavity is the most accessible area for examination, up to 50% of oral cancers are not detected until the disease is well established⁵. Due to lower literacy rate, socio-economic status, and life style, it is growing every year and carries a poor prognosis with overall survival around 50%⁶.

Oral cancers can easily be prevented by making an early diagnosis and by creating awareness about its risk and the causative factors.

Total lack of awareness, low literacy rate, poverty and the unavailability of the specialist are some of the major causes of the high incidence and late diagnosis in Pakistan. All the health care providers can play a very important role in the diagnosis and early treatment of oral cancers but the dental professionals are directly responsible for the oral health, prevention, diagnosis and timely management of oral and dental diseases including oral cancers or any suspicious lesions in oral and head and neck regions including oral cancers⁷. The main purpose of this study was to see the role played by the dental surgeons in the prevention and timely diagnosis of oral cancers. Many similar researches have already been done in Pakistan and other countries and are very helpful in determining the deficiencies on the part of dental surgeons. It is hoped that this study will help dental surgeons to become aware of their responsibility in preventing and diagnosing such lesions to enhance healthy growth of community.

MATERIALS AND METHODS

This study was conducted mainly at Islam Dental College Hospital, Sialkot and at different dental clinics in Sialkot district in the months of February and March, 2017. A questionnaire was given out to around 250 male and female dental surgeons randomly who were ready to fill it. The questionnaire contained the

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information about the patient’s examination, history especially about use of risk factors like tobacco, paan, gutca, and of other cancerous lesions in head and neck region. Instructions were given out to the patients to leave such habits. Also, diagnosis of any suspicious oral lesion or cancer was made.

The questionnaire was distributed personally making confidentiality of the patient of prime importance and was kept secret during the study. It was later collected after 2-3 days and the dental surgeons who filled the forms on time and completely were also included in the

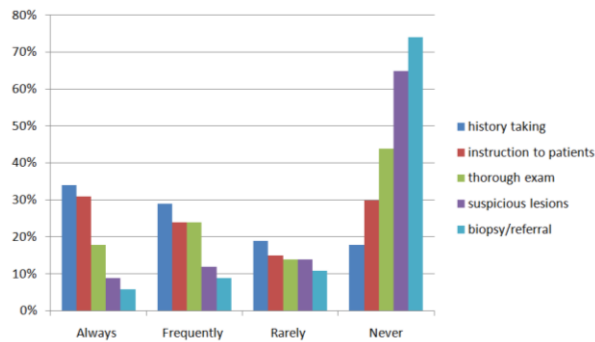
results. All the questionnaires which were ill-filled or incomplete were excluded from the study. Simple percentages and calculation of the results were made.

RESULTS

Out of 250 questionnaires that were distributed amongst the dentists 230 were completed on time and returned and out of that 170(74%) were male and 60 (26%) were female dentists.

Table 1: Oral Cancers Diagnosis and Prevention by Dental Surgeons

Variables	Always	Frequently	Rarely	Never	Total
History of Tobacco, Paan, Gutca, Alcohol	78(34%)	66(29%)	44(19%)	42(18%)	230
Thorough Examination of oral and head and neck region	40(18%)	56(24%)	32(14%)	102(44%)	230
Instruct patient to quit habits	72(31%)	56(24%)	34(15%)	68(30%)	230
Consideration of any suspicion of oral cancer	20(9%)	28(12%)	32(14%)	150(65%)	230
Biopsy/ refer for specialist	14(6%)	22(9%)	26(11%)	172(74%)	230



Picture No.1: Graphical Presentation of the Dental Surgeons Performing Specific Procedure for Prevention and Early Diagnosis of Oral Cancer/ Oral Lesions.

About 37% dentists rarely or never asked about use of tobacco, paan, alcohol habits. Only about 55% Dentists gave instructions to their patients to leave such habits which may cause oral cancers. Eighteen percent (18%) of the dentists always did a thorough oral and head and neck examination. Only 9% took great care to consider lesions suspicious leading to oral cancer and only 6% took biopsies or referred to specialists to confirm their findings. Results are shown in table 1 and graphically shown in picture 1.

DISCUSSION

Squamous cell carcinoma is one of the most common cancer in the world mainly because of the smoking habits among the populations. All the health professionals especially the dentists are very well aware that the usages of any form of tobacco, alcohol, pan or betel chewing are the main concerning factors for oral cancers. The lack of public awareness is the main issue that we have to deal it. The study that was conducted was mainly done to enhance the awareness of the dental

professional to be careful and responsible in the prevention and correct diagnosis of lesions so that there can be a decrease in the morbidity and mortality rate due to oral cancers.

The results clearly showed us that only 34% dentists did take complete history of patients and asked the important questions about smoking, the use of tobacco, pan and alcohol but only about one third (31%) of dentists did advise their patients to stop using such pre-cancerous agents. The study clearly showed that the dentists do not take complete patients history about the use of tobacco as frequently as required which is also mentioned in other studies^{7,8}. Anther study also indicated that many dentists don’t take serious parts in preventing and cessation of such habits when compared to other health professionals^{9,10,11,12}.

Prevention and diagnosis of early cancerous lesions in majority of patients is possible simply by careful examination of the oral and head and neck area of the patient, taking detailed history about risk factors and identifying any suspicious lesions. Any lesion **which does not resolve within two weeks period on its own, with or without treatment**, should be considered suspect and worthy of further examination or referral to a specialist. Early diagnosis and initial stage are the most significant factors affecting the treatment and survival rate of oral cancer patients. As five year survival for a localized stage 1 oral cancer is 80% that can decline to 51 % with regional spread and deteriorates further to 29.5% with distant metastasis¹³. The results of present study show that majority of the dentists just pay attention to the dental treatments and do not seriously make efforts to prevent or diagnose oral cancers at an early stage. It is why most of the oral cancers are diagnosed at late stage with advanced lesions having significantly poorer survival rate as also mentioned in a study by Shah et al⁷.General Medical

Practitioners and dental surgeons can have an important role in the early detection of oral cancer. Research has shown that GMPs do not opportunistically screen high-risk individuals¹⁴.

CONCLUSION

Oral cancer claims hundreds of thousands of lives every year around the world. It can be prevented and diagnosed easily. Health professional and especially dental surgeons should be careful when treating patients. Education and the development of patient awareness regarding the risk factors leading to oral cancer are primary responsibilities of the dental surgeons. They should play their active role in the prevention, early diagnosis and management of oral cancers and other fatal conditions.

Author's Contribution:

Concept & Design of Study: Sana Zafar
 Drafting: Sadia Rashid, Danish Javed
 Data Analysis: Sadia Rashid, Danish Javed, Muhammad Rizwan
 Revisiting Critically: Muhammad Rizwan, Sana Zafar
 Final Approval of version: Sana Zafar

Conflict of Interest: The study has no conflict of interest to declare by any author.

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