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ORIGINAL ARTICLE

Awareness of Precancerous Lesions and Conditions among Dental Students and Fresh Graduates

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ABSTRACT

The purpose of this article is to gauge the level of understanding regarding oral precancerous lesions and conditions of fresh graduates and underscore the underlying deficiencies present to amplify the early detection rate in a bid to decrease mortality associated with this disease. A precancerous lesion is a structurally altered tissue with an increased risk of conversion into cancer. Similarly, precancerous condition points toward such a multifaceted condition in which an individual has a predisposition to developing cancer. Both of these terms are linked with the statistical significance that points towards the potential of a precancerous lesion or condition to transform into a malignancy. Their timely diagnosis is the focal point that will dictate prognosis, treatment modality to be used and the morbidity associated with it. Oral cancers happen to be one of the leading causes of death worldwide and they are running rampant in Asian countries because of the increased frequency of adopting high-risk factor habits such as smoking tobacco. Dentists are a class of professional healthcare workers that are almost exclusively concerned with the head and neck region of the patient. Their advanced knowledge in regards to oral cancer can facilitate an opportune diagnosis which will substantially decrease the incidences of under-treatment and over-treatment. Diagnosing precancerous lesions is curative while a delay in interpreting the lesion timely can have far-ending consequences.

Keywords: Pancreous lesions, dental students, fresh graduates

INTRODUCTION

Life is the most important thing to a human being and with importance, increases the risk of vulnerability and threat to it. One of the greatest threats looming over our heads is Cancer. Cancer has been threatening public health to a great extent in developed countries and is on the rise in developing nations, hence resulting in among the top five causes of mortality and morbidity in the world.[1] In high-risk countries such as Srilanka, Bangladesh, Pakistan, and India, oral cancer has the highest prevalence among cancers in men and may contribute up to 25% of all new cases.[2] Physicians and dentists have good access to the oral cavity, yet 60% of the oral cancers don't get diagnosed at the late stages of III or IV. The late diagnosis makes the treatment and outcome very challenging and the prognosis drops with the advancing stages with an average five-year survival rate of 50%[3,4].

In Pakistan, cancer happens to be the second leading cause of death. Five percent of all cancers are diagnosed in the head and neck region, and almost half of these are in the oral cavity[5]. The WHO includes two approaches to prevent oral cancer: Reduction of exposure to risk factors and early detection through screening[6], dentists play a vital role in the latter. Oral cancer accounts for less than 5% of the total incidence of all malignancies that occur in the human body, out of which approximately half of the oral cancer patients die of their disease.[7] Potentially malignant lesion is a tissue in the human body that has undergone alterations morphologically in which oral cancer is most likely to occur in its normal counterpart. These potentially malignant lesions include erythroplakia and leukoplakia.[8] Potentially malignant condition is a generalized state associated with a significantly increased risk of cancer. The precancerous conditions include oral submucous fibrosis and candidosis[9].

It is mandatory to educate the dentists on the signs of potentially malignant lesions and potentially malignant conditions that would help them in timely diagnosis. Timely diagnosis will help in reducing the death rate of these patients. Dentists are the physicians of the oral cavity and routinely deal with it. So they are expected to pick and detect any obnoxious tissue at an early stage. Unfortunately, they are not highly trained to pick such lesions due to their lack of knowledge and training. To prolong the life of patients and assure them of a healthy one, early detection of precancerous lesions especially erythroplakia, is required as it can help with a significant improvement in prognosis and outcomes. The benefits of treating cancer at an early stage include acceptable quality of life, low cost of treatment, less disfigurement, and less psychological stress.[10] In contrast, oral cancer with advanced stages causes more agony and psychological stress to the patients and requires more lengthy surgery with financial burdens[11].

In the advanced stage of oral cancers, a lot of factors are involved in their treatment. Furthermore, since most of them are pain-free and symptom-free in the early stages, most people are unaware of the occurrence of cancer and they pay no heed to any of the changes taking place.

Lack of knowledge and awareness about oral premalignant lesions and conditions among dentists continues to be alarming as it dims the light on the necessity of knowledge about oral cancer and leads to delays in diagnosis and treatment[8]. There is published that dentists may not be able to pick and diagnose the oral changes due to their lack of knowledge about the risk factors and behavior of oral tissues to them..[7] As professional oral health care providers, dentists should be aware of all aspects regarding precancerous lesions to optimize early diagnosis and referral of oral cancer patients[12].

This study was carried out at UCD, UOL to assess the awareness of oral premalignant lesions and conditions among dental students and fresh graduates.

MATERIALS AND METHODS

A pre-validated questionnaire was shared online through Google forms to each fresh house officer and final year student of the University College of Dentistry (UCD), the University of Lahore. The sample was collected over a period of two weeks. The total number of questions was 23. Each question had four options and one of them was a corrected answer. The participants were asked

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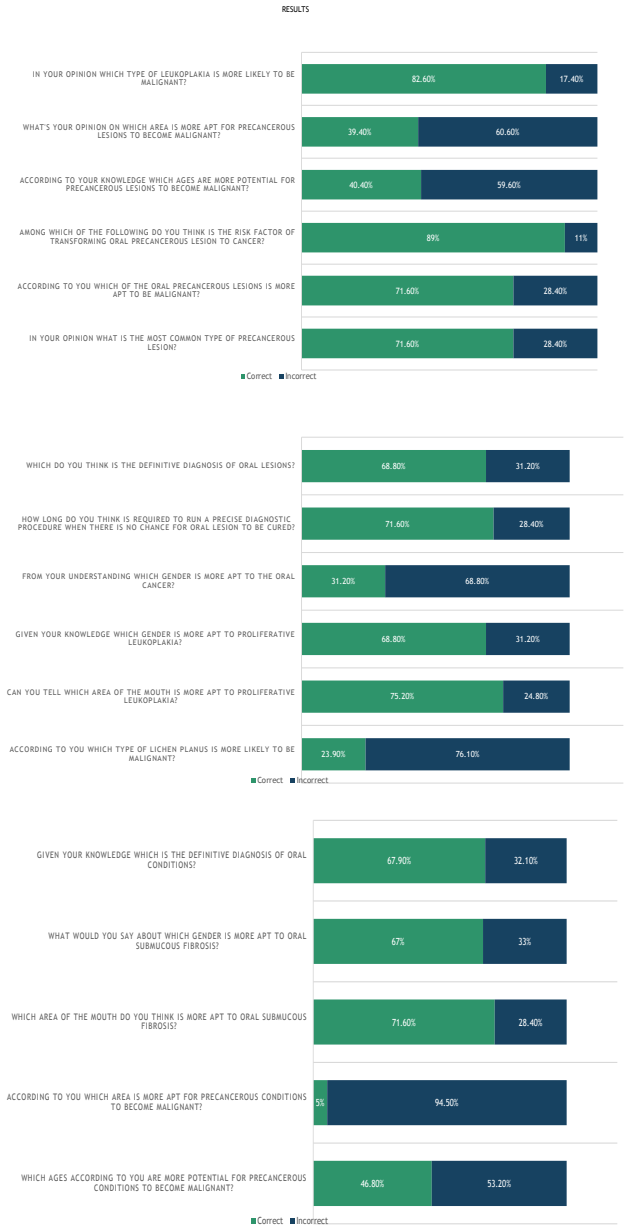
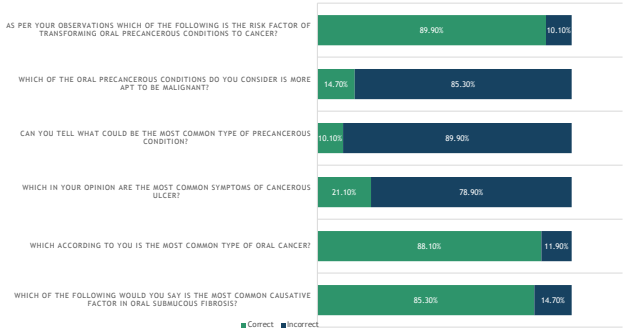
to choose the correct answer. The sample size comprised 109 graduates and undergraduates. The inclusion criteria consisted of final-year dental students and house officers of UCD. The Students in preclinical years and consultants were excluded from the study. Data were collected and analyzed using the SPSS version 22.0. Descriptive data were reported in the form of percentages and frequencies.

RESULTS

In the study a total of 109 fresh graduates and final year students took part among which 39% were males and 61% were females. The following graphs show the percentages of correct and incorrect answers in all the questions. Most of the correct answers were regarding the risk factors of increasing susceptibility to oral cancer. The lowest percentage for correct answers was 5.5% regarding the site that was more apt to become malignant due to precancerous conditions. Majority of the dentists answered correctly about the most common precancerous lesions.





DISCUSSION

The results of our study showed the mean value of the knowledge of participants who answered the 23-item questionnaire to be 13.01. In a previously conducted survey in Iran the score for a 15-item questionnaire among 153 participants was ranged between 6.22 and 8.53. The knowledge level of around 7000 dentists that took part in a survey which was conducted in America was 8.4. In Iran, a study was carried out by Razavi and his associates; the average score was 5.41 out of 10.

In this study, the most correct answer was for the risk factor of transforming oral potentially cancerous conditions to cancer, which was 89.9%, and the lowest correct answer was related to the area which is more apt for potentially cancerous conditions to become malignant, which was 5%. In a previously published study in Iran, the most correct answer was for the most common type of oral cancer which was 87.6% and the lowest correct answer was about the most common type of oral lichen planus, which was 3.9%[13].

In our study, 88.1% of the participants knew the most common type of oral cancer and these results are aligned with the results of the study carried out by greenwood in England which showed that 90.6% of participants were aware of the most common type of oral cancer.[14] In 2002, a survey conducted in Maryland revealed that 80% of the participants correctly answered the question regarding the most common type of oral cancer. Another study was conducted in Iran which shows that 80% of the participants were well aware of the most common type of oral cancer[15].

In the current study, 82.6% of participants correctly answered the questions regarding the type of leukoplakia that is most likely to be malignant. A study was conducted in Iran which showed that 31.4% of participants answered correctly about the type of leukoplakia which is more likely to be malignant[13].

However, when coming to the knowledge about potentially malignant conditions, the participants were not very well aware of certain basics. Only 10.1% of the participants were able to tell about the most common potentially malignant conditions. Also the awareness of the symptoms of oral cancerous ulcers was not clear to the participants as only 21.1% were able to tell correctly about them. To decrease the burden of this eminently preventable cancer, a multi-faceted approach that integrates health education, tobacco control, and early detection is required[8].

Sometimes patients have some oral changes or lesions in different parts of the oral cavity or some generalized health conditions that have a propensity to develop the cancer[12]. An early diagnosis of such condition or lesions can ensure a good prognosis and less financial burden to the patients[16,17].

CONCLUSION

Based on results it has been concluded that the dental practitioners were having satisfactory knowledge and awareness about inclusive issues such as the most prevalent oral cancers, factors that make the patient susceptible to precancerous lesions

and conditions, the basic diagnostic methods, and common types of oral cancers. Their understanding and particular knowledge about precise questions regarding oral precancerous conditions were shallow. It can be concluded from the results that the knowledge about the diagnosis of precancerous conditions among Dental students is insufficient in some ways. General training of dentists seems to be augmented to alter this research study. Based on the increasing rates of oral cancers in modern times, the early diagnosis and treatment of oral cancers have become a prime concern given the period as the population is increasing and is getting more and more susceptible to such horrors. Being a dentist, it is mandatory to have knowledge about precancerous lesions and precancerous conditions which helps in timely diagnosis.

Conflict of interest: Nil

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