Awareness and knowledge about oral cancer among people in Jeddah, Saudi Arabia.

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Abstract: Oral cancer is becoming prevalent and has dramatically become one of the causes of death among human race. However like any other cancers, early diagnosis is the key to save patients who have this kind of illness, thus the need to increase the level of knowledge and awareness of the people concerning this malady. The objective of this study is to examine the level of awareness and knowledge of oral cancer of the city of Jeddah in Kingdom of Saudi Arabia. A questionnaire was used to collect data from a random sample of 400 people. The questionnaire included 7 questions pertaining to knowledge about oral cancer. IBM SPSS version 22 has been used to analyze the data collected. In this study, we found out that people in Jeddah have a very low level of knowledge and awareness on oral cancer.

Keywords: oral cancer, oral health, diagnosis, awareness

1.   Introduction

Oral cancer is the 11th most commonly reported malignancy worldwide (Atessa, et al., 2010). Although many types of cancer occur in oral cavity, about 90% of these are squamous cell carcinomas (Cawson and Odell, 2008). Out of the many factors associated with oral cancer, tobacco usage has been identified as the strongest (Johnson, 2001). Oral cancer is becoming a major health concern because of the current increase in its occurrence especially in the third world. According to worldwide statistics an estimated 263, 900 new cases were found with 128 000 deaths annually worldwide (Jemal, et al., 2011). About 58% cases of oral cancer occur in South and South East Asia (Nair, et al., 2004).

Oral cancer is largely preventable (Pavia, et al., 2006). Early diagnosis of the malignancy significantly increase survival rates as the mouth is effortlessly reachable for self or clinical assessment. However, oral cancer is still frequently diagnosed in advanced stages thus requiring aggressive treatment and associated morbidity, resulting in higher mortality rates than when diagnosed early (Shiboski, et al., 2000). One of the main reasons may be the lack of information about the causes and knowledge of signs and symptoms of oral cancer among the population. Moreover, most of oral cancers are preventable if people know which risk factors they must control or eliminate (Warnakulasuriva, et al., 1999).

2.   Methodology

The present survey was carried out for the whole month of March 2014. The study population included males and females with different educational level, who had no background or knowledge of medicine and were not related to any branch of the medical sciences. A total of 400 person were randomly selected in this study. The information was gathered by asking questions using a well-structured questionnaire covering aspects regarding knowledge about oral cancer, its types, signs, symptoms, and risk factors.

The statistical package used for this study is IBM SPSS version 22. A simple descriptive statistics was done in showing off the frequencies, counts, percentages and variations of the different variables of this study.

3.   Results

Out of the 400 respondents, 65.50% were females and 34.50% were males, Saudis comprises 84.8% of the sample population and 15.30% non-Saudis (Figure 1). Their educational level were 62% Bachelor degree, 28% Undergraduates and 10% had postgraduate studies (Figure 2).

As to the type of cancers enumerated in the questionnaire, 46.8% claimed that they haven't heard about these types, 44.9 % of them said that they were familiar with lung and breast cancer, and 6% said that they are familiar with oral, breast and lung cancer. Lastly, only 1.3 % said that they know oral cancer (Figure 3).
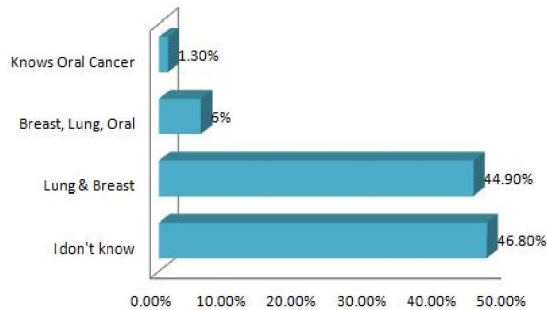
Figure 1. Demographics

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Figure 2. Educational Level
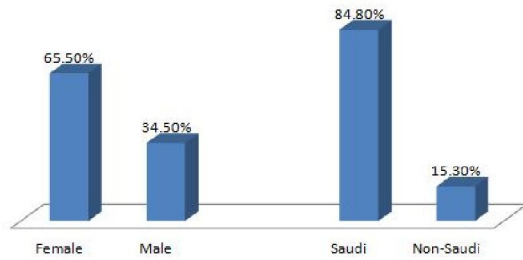
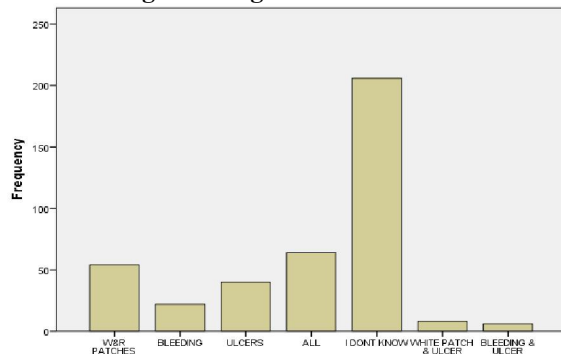Figure 2. Educational Level

Figure 3. Type of Cancers known
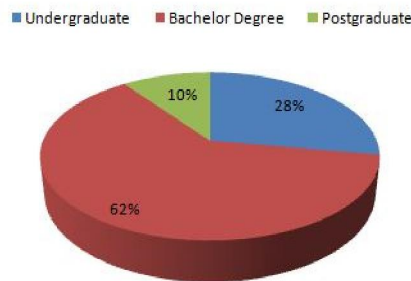

Figure 3. Type of Cancers known

When asked about the signs of oral cancer 51.5% said that they had no idea about it, 21% said a white & red patches with bleeding, 10 % thought ulcer, while 16% checked all signs (Figure 4).

Figure 4. Signs of oral cancer


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When asked about risk factors for oral cancer 44.5 % said that the risk factors are: smoking, alcohol and tobacco, while 22.5 % said that cigarette smoking is a risk factor, 14.2% said that they had no idea about the risk factors, 2.5% said that tobacco & ghats are risk factors and 2 % said that Alcohol is a risk factor (Figure 5).

Figure 5. Risk Factors

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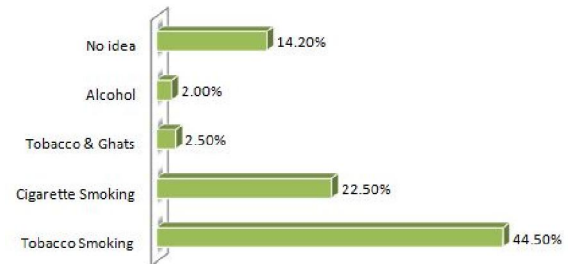
When asked if early diagnosis of oral cancer helps in the treatment, 88% said yes, 11.3% had no idea, and 0.8 % said no (Figure 6).

Figure 6. Does early diagnosis helps in the treatment of oral cancer?
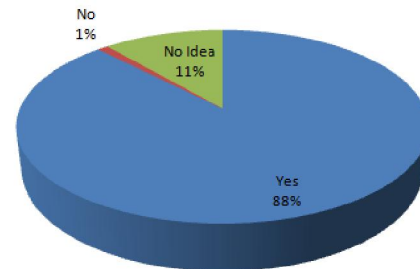
We also asked if they think men had a higher risk of having oral cancer than the women and 37.5 % said both men and women have the same level of risk, 34.3% said they had no idea, 25.3% yes, men had higher risk and 3% said no (Figure 7).

Figure 7. Who have higher risk of oral cancer?

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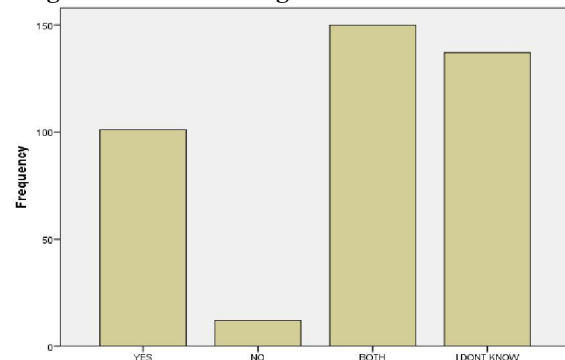
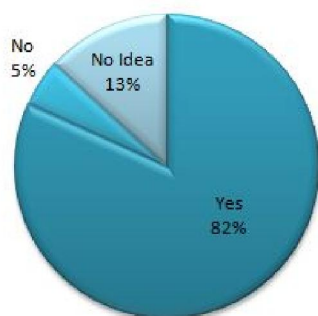We also asked if the dentists role in raising level of awareness on oral cancer are appreciated and an overwhelming 81.8% of the respondents said yes, while 13.3% said that they had no idea and 5% said no (Figure 8).

Figure 8. Is dentist role in raising level of awareness appreciated?

4.   Discussion

This study investigated the level of awareness and knowledge of people residing in Jeddah, Saudi Arabia who are not in the field or in any way related to the field of medicine. It is very alarming that the level of knowledge and awareness of our respondents on oral cancer is very poor considering its prevalence worldwide, this is the same with the study of Shah and Praveen (2014) who on their study found that only 12.10% of their respondents heard or knew about oral cancer (Shah and Praveen, 2014).

Oral cancer like any other cancer is something that needs to be given with attention. In south central Asia alone, cancer of the oral cavity ranks among the three most common types of cancers (Reddy, et al., 2012), sixth among Indian males and third among Indian females in Malaysia (Malaysian National Cancer Registry, 2003). Survival rates are about 80% when the tumor is diagnosed at an early stage and less than 30% in cases presenting with distant metastasis (Petti and Scully, 2007). Stewart and Kleihues furthers that despite recent advances in the detection and treatment of cancer, visual accessibility of the oral mucosa, and the scientific knowledge on cancer risk factors, oral cancer carries a low survival rate (near 50%) (Stewart and Kleihues, 2003).

Unfortunately, majority of our respondents said that they don't have any idea of the signs of oral cancer. But positively, few were correct when they said that white and red patches with bleeding maybe a sign for this illness. This is reiterated by the National Institute of Dental and Craniofacial Research when they said that two lesions that could be precursors to cancer are leukoplakia (white lesions) and erythroplakia (red lesions) (Monteiro, et al., 2012).

The institute also furthers that possible signs and symptoms of oral cancer that patients may report includes: a lump or thickening in the oral soft tissues, soreness or a feeling that something is caught in the throat, difficulty chewing or swallowing, ear pain, difficulty moving the jaw or tongue, hoarseness, numbness of the tongue or other areas of the mouth, or swelling of the jaw that causes dentures to fit poorly or become uncomfortable (Monteiro, et al., 2012).

Our respondents were able to point out that smoking is a risk factor this is the same with the study of Monteiro, et al., (2012). However, alcohol was recognized to a slighter scale as a risk factor. This trend was also reported by other authors (Warnakulasuriya, et al., 1999; Prayman, et al., 2009; Cruz, et al., 2002; Pakfetrat, et al., 2010; Rogers, et al., 2011). Early diagnosis is indeed a key to elevate the survival rate of patients who are having oral cancer and this is overwhelmingly agreed upon by majority of our respondents. This fact has always been reiterated by medical practitioners. Soares, et al said that early diagnosis is essential and it reduces rates of morbidity, mortality and mutilation, it increases the quality of life of the patients and lower treatment costs (Soares, et al., 2014).

Due to the opportunity of routinely examining the oral cavity, the dentist has the chance to diagnose oral cancer even in asymptomatic patients before dissemination occurs to adjacent tissues (Soares, et al., 2014). This role of the dentist in raising the level of knowledge and awareness of the people on oral cancer fact has been tremendously agreed upon by 81% of our respondents. It is the responsibility of the dental schools to ensure the formation of a generalist with solid technical, scientific, humanistic, and ethical knowledge, aimed at promoting health, emphasizing the philosophy of prevention of prevalent oral diseases (Brazil Ministry of Education, 2002). Although post-graduation are important for the activity in this field, graduation is essential and must ensure that students have the relevant basic knowledge on prevention and early diagnosis of oral cancer (Dib, et al., 2005).

5.   Conclusion

This study showed that a lot of people in Jeddah, Saudi Arabia are still unaware of the basic knowledge about oral cancer. Hence, there is a clear need to enlighten and teach the public in matters relating to it.

6.   Acknowledgement

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