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Afr. J. Biomed. Res. Vol.17 (May, 2014); 69- 73

Full Length Research Paper

Knowledge and Screening Practices for Oral Cancers amongst General Dental Practitioners in Lagos, Nigeria.

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ABSTRACT

Oral cancer presents with both a high morbidity and mortality rate, and these reduce dramatically when disease is detected early. The dental profession has a very important role towards early detection, prompt referral and treatment. This descriptive cross-sectional study was conducted using a self-administered questionnaire involving general dental practitioners (GDPs) in both government and private hospitals in Lagos, Nigeria. A total of 100 copies of the questionnaire were sent out to general dental practitioners in the state. Data were entered using SPSS 17.0 and presented both in descriptive and tabular forms. A total of 86 (86%) practitioners of the 100 returned the questionnaires sent to them. Although over 98% of respondents (85 of the 86 respondents) claimed they had a good knowledge of risk factors for oral cancers. Only 70% (61 respondents), 59% (51 respondents) and 55(64%) identified smokeless tobacco increasing age (above 40 years old) and dietary intake as risk factors respectively. Fifty (58.1%) and 46 (53.4%) respondents in the study claimed they were up to date in the assessment of oral cancers and in regular assessment of oral cavity of all new patients for oral cancers during their dental visits respectively. Four respondents in the study claimed they were not aware that early detection played a significant role in reducing both morbidity and mortality of oral cancers. These findings concerning dentists' knowledge and screening practices in relation to oral cancers suggest that both educational intervention and a paradigm shift in dentists' attitudes might be necessary for improvement in the early detection of oral cancers in this environment.

Key words: Oral cancer knowledge, screening practices, dental practitioners

INTRODUCTION

Although oral cancers represent only 2-5% of all cancers in the body in most studies, they have one of the lowest 5-year survival rates among major cancers (Cantoa *et al* 2002; Kumar and Suresan 2012; Shetty et al 2013; Langevin *et al* 2012). The major risk factors for oral cancers documented in literature are the use of tobacco and alcohol as well as exposure to sunlight in the case of lip cancer. Other reported risk factors include low consumption of fruits and vegetables, exposure to certain viruses such as the human papilloma virus and use of marijuana (Kumar and Suresan 2012). In addition, approximately half of all oral cancers are diagnosed in individuals 65 years of age or older in the western world (Moore *et al* 2000), although lower ages of occurrences have been reported in some studies amongst Nigerian patients (Oji and Chukwuneke 2007).

The burden of suffering associated with oral cancers is distinct from that caused by the other major oral diseases (dental caries and periodontal disease) with a much worse morbidity and mortality (Lea˜o *et al* 2005). The survival statistics of the disease has also had little changes over recent decades, and oral cancers

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Date Received: February, 2014
Date Accepted:, May, 2014

Abstracted by:
Bioline International, African Journals online (AJOL), Index Copernicus, African Index Medicus (WHO), Excerpta medica (EMBASE), CAB Abstracts, SCOPUS, Global Health Abstracts, Asian Science Index, Index Veterinarius

continue to receive less attention than other types of cancer (Lea˜o *et al* 2005). Primary prevention of oral cancer involves principally the avoidance of risk factors including tobacco use, alcohol abuse as well as appropriate intake of fruits and vegetables (Kumar and Suresan 2012; Horowitz *et al* 2001). Secondary prevention of oral cancer consists primarily of early detection of the disease and this can be potentially effective as typically, oral pharyngeal cancers take several years to progress to advanced stages (Clovis *et al* 2002; van der Waal *et al* 2011). Early recognition of potential malignant oral disease with appropriate referral of patients seems to be the most critical intervention influencing both survival and morbidity of the disease. The oral cavity is easily accessible and can be examined with little discomfort. Dentists, as primary care providers, can easily incorporate the screening protocol for oral cancers into their routine examinations (Shetty *et al* 2013). Supporting this statement, evidence was found about 20 years ago, when a British Columbia study of people with oral cancer found that 70% of those who had regular dental visits were diagnosed early (stage I or II cancers), while only 40% of those who did not have regular dental visits were diagnosed at an early stage (Elmood and Gallager 1985). Information on the knowledge and attitudes of general dental practitioners (GDP) in Nigeria with regard to early diagnosis of oral cancer is sparse. The purpose of this study was therefore to assess GDPs in Lagos, Nigeria for their understanding of risk and diagnostic factors and their screening practices in relation to oral cancer.

MATERIALS AND METHODS

A hundred copies of a self-administered questionnaire that assess the knowledge and screening practices of general dental practitioners for oral cancers were distributed between February 2013 and August 2013. Anonymity and confidentiality of all the responses from dentists were assured in the filing of the questionnaire. The information recorded included demographics (age and sex), place of practice and years of practice. The respondents were also asked about their knowledge of risk factors of oral cancers, ability to recognise early clinical signs and symptoms and ability to assess established disease. They also recorded their screening practices and their ability at identifying factors that affected overall prognosis of the disease. A database was constructed using the SPSS 17.0 (SPSS. Inc., Chicago, IL). Data collected were analysed and presented in descriptive and tabular forms as numbers and percentages.

RESULTS

Of the 100 copies of the questionnaire sent out, 86 were returned giving a response rate of 86%. There were 53 males and 33 females. The age ranged from 21 to 55 years with a mean age of 33.8 ± 8.6 years. Of the respondents 29.9% had practiced for ≥10 years, 25.6% for < 10 years and ≥ 6 years while 44.5% had practiced for < 6 years. Majority (75.6%) of the respondents in the study were dentists that practiced in government owned dental clinics.

Table 1:
Identification of risk factors by respondents.

Risk factors	Number of respondents		
	Yes	No	I don't know
Smoked tobacco	83	-	3
Smokeless tobacco	61	8	17
Chronic irritation	72	3	11
Alcohol	73	3	10
Nutritional status of patient (diet)	55	5	26
Increasing age	51	14	21
Poor oral hygiene	48	23	15
Viral infections	74	3	9
Oral sex	65	8	14
Male gender	34	23	29
Excessive exposure to sunlight	54	11	21

Table 2:
Screening practices for oral cancer by respondents

Screening practices	Number of respondents		
	Yes	No	No response
Do you have adequate training to screen for oral cancer	35	50	1
Do you do a complete screening including for cervical nodes for new patient	46	38	2
Do you request for biopsy for suspicious lesions	60	23	2
Do you refer patients with suspicious lesions	77	7	2
Do you educate patients on preventable risk factors of oral cancer especially of their 1st visit	77	8	1
Do you advice patients over 40 on annual check up to detect early signs of oral cancers	42	44	-

Identification of risk factors and early clinical signs and symptom

Although over 98% of respondents (85 of the 86 respondents) claimed they had a good knowledge of risk factors for oral cancers, only 70% (61

respondents), 59% (51 respondents) and 55(64%) identified smokeless tobacco non smoked tobacco, increasing age (above 40 years old) and dietary intake as risk factors respectively (table 1). Most (96.5%) respondents identified non healing ulcers as either associated or strongly associated with oral cancers. Other signs identified included red patch on the mucosa (94.2%) and white patch that does not easily scrape off (91.8%). Only 21(24.4%) however, claimed they could effectively stage cancers of the oral cavity.

Screening practices and identification of factors affecting prognosis

Only 58.1% (50 respondents) in the study claimed they were up to date in the assessment of oral cancers, of this number 23 (26.7%) respondents claim they do not request for biopsies of suspected cases (table 2). Only 53.4% (46 respondents) claimed to assess oral cavity of all new patients for oral cancers during their dental visits, 77 (89.5%) respondents claim to advice patients on risk factors and 48.8% request for annual screening in patients above 40 years (table 2). Over 94% (81 respondents) of respondents identified the staging of tumours as an important factor in the prognosis of the disease; however 4.7% (4 respondents) claimed they were not aware that early detection plays any role in the prognosis of the disease (Figure 1).

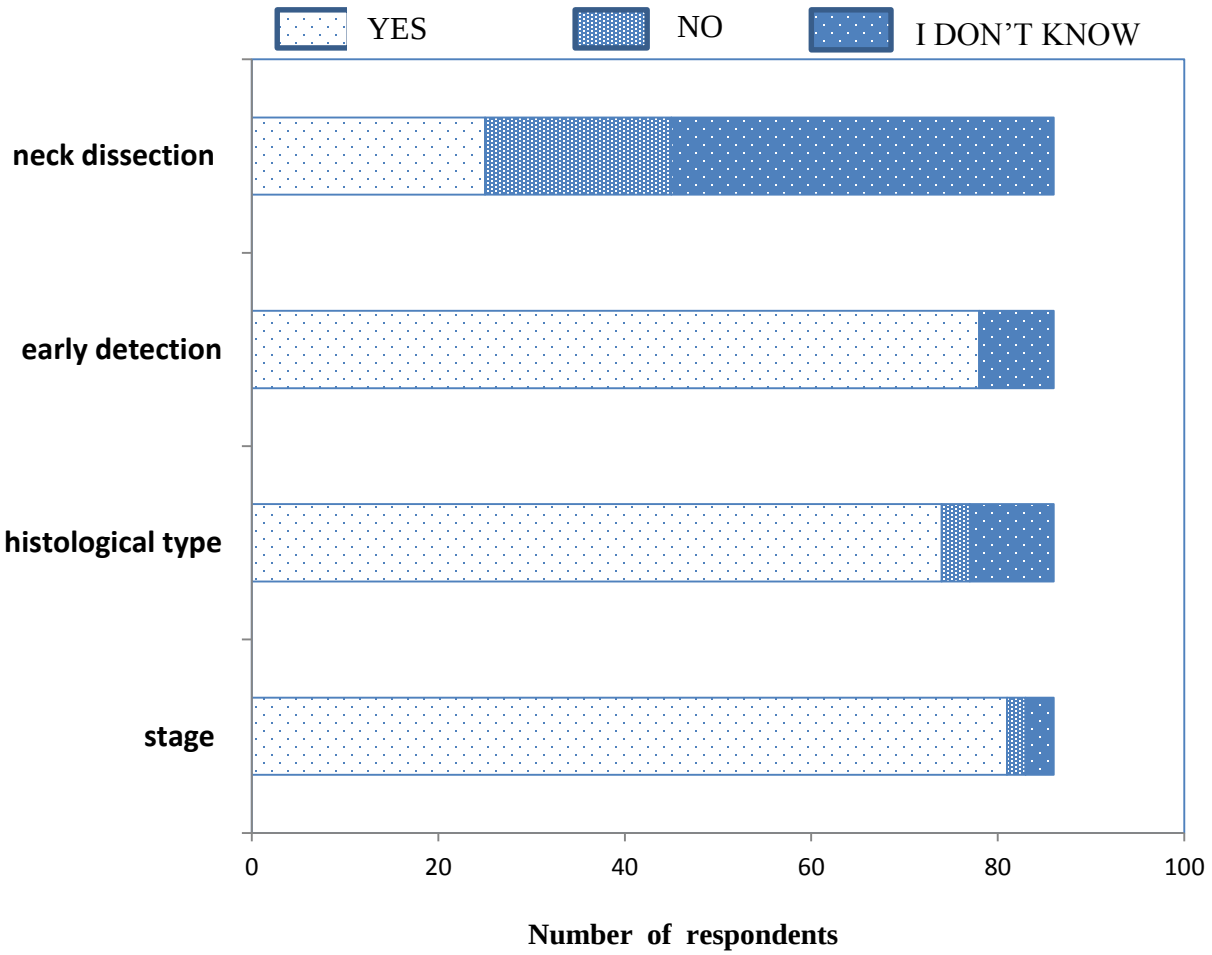

Figure 1:
Response on factors that can affect prognosis

DISCUSSION

This study reports the overall knowledge, attitudes, and the screening practices regarding the early detection of oral cancer among General dental practitioners in Lagos, Nigeria. Comprehensive oral cancer examination and risk assessment are measures that may lead to early detection and prevention of oral cancer

(Kumar and Suresan 2012; Horowitz *et al* 2001). The adjective "early" in relation to cancer can however be used in three ways, being 1) early in the process of carcinogenesis, 2) early in the meaning of a relatively small size at the time of detection, and 3) early in the meaning of a short time interval, i.e. short delay, between the time of symptoms and the time of diagnosis (van der Waal *et al* 2011). The fact that it is almost impossible to determine the beginning of process of carcinogenesis clinically makes it clear that only the latter two of the definition of early detection can be applied clinically in the secondary prevention of oral cancers. This makes most experts to agree that the key in early detection of oral cancer is not necessarily identifying oral cancer but identifying tissue that is not normal and taking appropriate action on them (Langevin *et al* 2012) .

Overall, we found that this group of dentists had a fairly good knowledge about oral cancer risk factors and about signs and symptoms. The claim by almost all the dentist (98.8%) that they had a good knowledge of risk factors associated with oral cancer was found not to be completely correct (table 1). Although the most important identifiable risk factors for oral cancers in literature are smoked tobacco and alcohol were identified correctly by majority of respondents in the study (table 1), these factors have been less associated with oral cancers in some studies in Nigerians (Oji and Chukwuneke 2007; Lawoyin *et al* 2003). The ability of dentists to able to identify other factors might be crucial in the primary prevention of oral cancers. This is especially true in our environment that there are suggestions that the diet/nutritional status might be an important risk factor for the occurrence of oral cancers (Oji and Chukwuneke 2007; Lawoyin *et al* 2003).

Being able to routinely detect oral cancer at an early stage and counsel patients in prevention is a continuous challenge for the dental profession. Dentists must be familiar with the risk factors, clinical signs and symptoms of oral cancer if they are to be effective in identifying, referring and counseling high-risk patients (Kumar and Suresan 2012; Mashberg and Samit 1989). There is also strong available evidence to suggest that the visual inspection of the oral mucosa is effective in reducing the mortality from oral cancer, in individuals who are exposed to risk factors (Langevin *et al* 2012; Elmood and Gallager 1985). In the present study 50 (58.1%) claimed they were adequately trained to conduct dental examination for early detection of oral cancers, this result was lower than that recorded in a similar study that assessed the oral cancer knowledge, attitude and the screening practices among 240 dental practitioners in Bangalore city where 68% claimed to be adequately trained in conducting oral cancer examinations (Kumar and Suresan V 2012). The reason for this low response in ability to provide screening services is probably because this study was conducted amongst general dental practitioners who until 2011 were not mandated to have a continuing education in the country. Further studies in the coming years might show more GDP's acknowledging ability to detect early lesions as continuing education has become mandatory for the renewal of practicing licenses. Also only 48.8% of dentist claimed the advised patients above 40 years to return for annual check-up for early detection of cancers, the figure is also low as increasing age above 40 is regarded a major risk factor in the development of oral cancer(Cantoa *et al* 2002; Kumar and Suresan 2012; Shetty *et al* 2013; Langevin *et al* 2012). It is also important to note that regular visits to the dentist by patients have been known to reduce both the morbidity and mortality of the disease (Langevin *et al* 2012; Elmood and Gallager 1985). Four GDP's in this study surprisingly claimed they were not aware that early detection was an important prognostic indicator in oral cancer management. Literature is however full of evidence and for quite a number of years that the most important factor in decreasing both the mortality and morbidity of the disease is early detection and many policies have been established in different communities and nations at achieving this (Kumar and Suresan 2012; Horowitz *et al* 2001; Clovis *et al* 2002; Horowitz and Alfano 2001).

The findings in the study supports the initiative of continuing education amongst dentist concerning dentists' knowledge and attitudes related to oral and pharyngeal cancer as there might be a number a missed opportunities of identifying early disease amongst dentist in the state. The continuing education is therefore important because, with dentists' focus limited to the oral cavity, it is also reasonable to believe that they might be able to easily obtain a focused medical examination of the area and also take good behavioral history, including the key risk factors for oral cancer. Second, multiple opportunities exist during a patient's visit to a dental office to provide counsel on risk factors of the disease and other preventive measures. It is important therefore that the information obtained from this study be used to organize continuing education for GDP's in Lagos, Nigeria with emphasis on educating patients on risk factors of the disease and identification of early signs of the disease. Most importantly, however the GDP's must begin to put their knowledge to work in their clinical practice to improve the stage of presentation of the disease in the state. Also the level of inconsistencies between the dentists' knowledge about oral cancer and their screening practice behaviors need to be addressed. Further study is therefore needed to understand the barriers dentists experience to translate knowledge gained into practice.

REFERENCES

Cantoa MT, Horowitz AM, Child WL. (2002): Views of oral cancer prevention and early detection: Maryland Physicians. Oral Oncology. 38, 373–377

Kumar KV, Suresan V. (2012): Knowledge, attitude and screening practices of general dentists concerning oral cancer in Bangalore city. Indian J cancer. 49, 33-38.

Shetty MS, Decruz AM, Pai P. (2013): The Self-Reported Knowledge, Attitude and the Practices Regarding the Early Detection of Oral Cancer and Precancerous Lesions among the Practising Dentists of Dakshina Kannada—A Pilot Study. J Clin Diagn Res. 7, 1491-1494

Langevin SM, Michaud DS, Eliot M. (2012): Regular dental visits are associated with earlier stage at diagnosis for oral and pharyngeal cancer. Cancer Causes Control. 23, 1821–1829

Moore SR, Johnson NW, Pierce AM, et al. (2000): The epidemiology of mouth cancer: a review of global incidence. Oral Diseases. 6, 65–74

Oji C, Chukwuneke FN. (2007) : Oral cancer in Enugu, Nigeria. Br J Oral Maxillofac Surg. 4,: 298-301.

Lea˜o JC Go´es P , Sobrinho1 CB. (2005): Knowledge and clinical expertise regarding oral cancer among Brazilian dentists. Int. J. Oral Maxillofac. Surg. 34, 436–439

Horowitz AM, Siriphant P, Sheik A, Child WL. 2001 Perspectives of Maryland dentists on oral cancer. J Am Dent Assoc. 132, 65-72

Clovis JB, Horowitz AM, Poel DH. (2002): Oral and Pharyngeal Cancer: Knowledge and Opinions of Dentists in British Columbia and Nova Scotia J Can Dent Assoc. 68, 415-20

van der Waal I, de Bree R, Brakenhoff R. (2011): Early diagnosis in primary oral cancer: is it possible. Med Oral Patol Oral Cir Bucal. 1, e300-5.

Elmood JM, Gallager RP. (1985): Factors influencing early diagnosis of cancer of the oral cavity. CMAJ. 113, 651-6.

Lawoyin JO, Aderinokun GA, Kolude B, et al. (2003): Oral cancer awareness and prevalence of risk behaviours among dental patients in South-western Nigeria. Afr J Med Med Sci.32, 203‑7.

Mashberg A, Samit AM. (1989): Early detection, diagnosis and management of oral and oropharyngeal cancer. CA Cancer J Clin. 39, 67-88.

Horowitz A|M,. Alfano MC. (2001): Performing a death-defying act. J Am Dent Assoc. 132, 5S-6S