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Original Research

Awareness of Oral Exfoliative Cytology among General Dentists- A Questionnaire Study

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ABSTRACT:

Introduction: Among the head and neck cancers, oral cancer is the 6th most common cancer worldwide. Use of tobacco and its products are the main etiological factor for the development of oral cancer, were it has the unacceptably high mortality and morbidity. In order to reduce this rate, several prevention methods are employed. Secondary prevention of oral cancer plays an important role which includes the screening and early detection of the lesion. In this way general dental practioners plays a major role in this prevention measures. In the current study we aimed to assess the knowledge, as well as the practices concerning the early detection of oral cancer or precancerous lesions, among the general dentists of Chennai, Tamil Nadu. **Materials and methods:** The total of 300 dentists (BDS/MDS) was randomly selected for a 10-item questionnaire survey. The enquired questions include awareness of oral cancer and precancerous lesion, knowledge and usage of exfoliative cytological testing in their clinical practice, practical approaches of dentists towards the screening for oral premalignant diseases, etc. **Results:** The results were descriptively analysed using excel 2010 version. On correlating the results there was more than 98% (294) of the dentists reported to have not performed exfoliative cytology in their clinics. However, approximately 80% (240) of the dentists suggested that they needed a consultant oral pathologist for the diagnosis of Pre-cancer and oral cancer in their clinic and 90% (270) of dentists conducted biopsies when they encountered clinically suspicious lesions. **Conclusion:** This survey identified the gap existed in knowledge and practices among general dentists, in the use of exfoliative cytological procedure. This emphasizes the need to increase the use of oral exfoliative cytology in all cases of premalignant lesions and detect the disease at the earlier stage. This simple test can provide the better outcome if practised routinely as a part of screening or diagnosis in the case of suspicious lesion.

Key words: Oral cancer, Exfoliative cytology, oral precancerous lesions.

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INTRODUCTION

Oral cancer is the sixth most common cancer worldwide and more than 300,000 peoples are affected annually [(1,2)]. It is mainly caused due to the usage of tobacco and its products, these tobacco products are used worldwide in different forms due to the environmental and life style developed by different population [(3, 4)]. Despite of many treatment modalities patients survival rate is only 50% and it is due to late diagnosis of the disease. Early detection of the pre-cancerous lesions is important in accessing the disease from progressing into malignancy [(4)]. General Dentists are one of the most likely groups of health care practitioners who have a key role in counselling the patients regarding the early detection of oral cancer. On considering this, oral exfoliative cytology remains one of the simple and non-invasive methods for detecting dysplasia in the suspicious and the innocuous looking lesions in the Indian setup [(5)]. The health care workers and health authorities must work with the best scientific evidence and recommendations, in order to improve the knowledge and practices of the dental health care workers [(6)]. It is vital to train such professionals on the oral cancer risk, prevention and control measures and on simple detection procedures such as exfoliative cytology. Thus, assessing the knowledge of dental practioners regarding oral cancer is important for several reasons such as early detection, treatment planning and prognosis [(7)]. The purpose of the current study was to assess the general dentist's knowledge as well as their practices concerning on the early detection of oral

cancer and prevention, also the use of oral exfoliative cytology as a screening or diagnostic tool.

MATERIAL AND METHODS

Total of 300 randomly selected clinicians/general dentist of Chennai, Tamil Nadu were included in the study. The study was conducted between the month of July 2017 and October 2017. Self-administered questionnaires were personally given to the practising dentists. The completed questionnaires were collected back immediately.

The questionnaire [Table -1] consisted of ten questions which had to be answered by each respondent, which had the options, 'yes' or 'no'. The questionnaire assessed the awareness, prevention and screening and diagnostic practice regarding oral pre-cancer and cancer by asking whether the dentists performed an exfoliative cytology along with clinical examination, and their current knowledge on the recent advances in the field of diagnostic pathology.

The data was entered in MS Excel 2010. Descriptive statistics were carried out in the present study and they were presented as numbers and percentage.

RESULTS

Out of the 300 dental practioners who answered the questionnaire, 138 participants were male and 162 were females. The mean age of the dentists was approximately 25-40 years. The response rate was 100%. [Table -1]

Among the questionnaire, 98% (294) were aware of the oral exfoliative cytology method, Exfoliative cytology was performed only by 2% (6) of the practitioners. On asking whether they routinely carry oral cytology, 98% (294) answered "No," 95% (285) said that they would give counselling to the patient like tobacco cessation. It was evident that 99% (270) of dentists were aware of cancerous lesions and pre-cancerous lesion. To suggest the best technique for screening and early diagnosis of oral cancer and pre-cancer, according to their clinical experience, 30% (90) assumed exfoliative cytology and 90% (270) accepted biopsy.

Approximately 80% (240) of the dentists suggested that they needed a consultant oral pathologist for the diagnosis of Pre-cancer and oral cancer in their clinic, 50% (150), specified that it is possible to implement cytology technique as a routine chair side test.

DISCUSSION

The present study was performed to analyse the knowledge of dental practioners at Chennai, Tamilnadu, regarding the awareness on oral exfoliative cytology and their perspective on using oral cytology as one of the screening or diagnostic tool in the clinics as a chair side test. The test results showed a significant knowledge and awareness among dentists on diagnosing pre-cancerous and cancerous lesions.

About 98% (294) participants were aware of the oral exfoliative cytology method, this states that general dentist are aware of the method but continuous education is required for improving the knowledge in the field. Our results were similar to Wardh et al. in 2009, were the study suggest that the need for continual educational programs for dentists will make them more knowledgeable in the current field [8].

It was noted that oral Exfoliative cytology was performed only by 2% (6) of the practitioners and regarding routine use, 98% (294) answered "No,". This response was similar to study by Shaila et al. done among Kannada dental practioners, which showed that 43% of the dentists were aware of the oral cytology and many of them felt that it was not suitable for their routine clinical use [6].

On discussing the question related to tobacco cessation counselling 95% (285) accepted to counsel the individuals who are interested to quit the habit. This response coincides with the study by Morse et al. in 1996 and Schlecht et al. in 2001, suggested that the stopping tobacco habits have the higher potential to reduce the incidence of pre-cancer and oral cancerous lesions [9, 10].

It was also evident that 90% (270) of dentists were aware of cancerous lesions and pre-cancerous lesion and they accepted the early diagnosis is important in treatment planning and prognosis. This can be achieved by using this simple test along with clinical examination. This response was similar to study by Kunjan et al. in 2006, that early detection and prevention of oral cancer is effectively achieved by visual screening of suspicious lesion [11].

Table 1: Descriptive analysis of participants based on questionnaire

Question	n	N	Mean	%
Awareness on cytology	300	294	297	98
Performing oral cytology	300	6	153	2
Routine usage	300	6	153	2
Tobacco cessation counselling	300	285	292.5	95
Aware on oral pre-cancer and cancer	300	270	285	90
Screening and diagnostic tool	300	240	270	80
Cytology	300	90	195	30
Biopsy	300	270	285	90
Consultant oral pathologist	300	240	270	80
Implementation as chair side technique	300	150	225	50

When the participants were asked to suggest the best technique for screening and early diagnosis of oral cancer and pre-cancer, according to their clinical experience, 30% (90) assumed exfoliative cytology and 90% (270) accepted biopsy, but they committed that use of biopsy for early lesion is unadvisable and as a general practioners they are unaware of the biopsy techniques to be performed for the particular lesion. This was coinciding with the study by Diamanti et al. in 2002 were he found that there are many reason for not undertaking biopsy in general practice, which can be due to unfamiliarity biopsy techniques and a lack of faith in personal diagnostic skills, also agreed that biopsy is a specialist procedure [(12)]. Another study by Bataineh et al. in 2015 also stated the practical application of biopsy and referring the patient to speciality concern [(13)].

Approximately 80% (240) of the dentists suggested that they needed a consultant oral pathologist for the diagnosis of dilemmatic oral pre-cancer lesions in their clinic, accordance to Kondori et al. that clinical misdiagnosis by general dentist was noted, hence subject specialist are always invited to overcome this problems [(14)].

Finally 50% (150) specified that it is possible to implement cytology technique as a routine chair side test. This is possibly because of economy involved in the procedure and simple procedure, others equally suggests that this can be time consuming and need lab person for transport and all time specialist to interpretate the results this may not be possible with all the routine cases.

CONCLUSION

The finding from the study concludes that, oral exfoliative cytology is a simple and non-invasive method of detecting the lesion at the early stage and it is one of the popular methods used earlier. As it is not a diagnostic method it can be used as a screening tool and when it is coming to social system, general dental practioners are widely involved in it [(15)]. They encounter many types of lesions in their clinical practice, also continuing education program are entertained pertaining to the practical aspects of investigation in diagnostic pathology. This study reveals us the existing gap between the general dentist and their involvement in improving the diagnostic tools in prevention of oral cancer.

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