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Original Research Article

ASSESSMENT OF KNOWLEDGE, ATTITUDE & PRACTICE REGARDING HEAD & NECK CANCER IN AGRA COMMISSIONARY OF WESTERN UTTAR PRADESH

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ABSTRACT

Background: Oral cancer is a major problem in the Indian subcontinent where it ranks among the top three types of cancer in the country. Medical and dental practitioners should possess basic knowledge for oral cancer as there graduation teaching curriculum. The objective is to assess the knowledge, attitude, and practices (KAPs) regarding Head & Neck Cancer (Oral cancer) among registered Medical and Dental practitioners in Agra Commissionary of Western Uttar Pradesh, India.

Materials and Methods: A cross-sectional, descriptive, questionnaire-based was carried out among 304 Dental Practitioners and 612 Medical Practitioners. Questionnaires were given to them personally (hard copy of questionnaires) or through electronic media (soft copy of questionnaires via Whats app/registered e-mail).

Results: Maximum practitioners were from Agra (412), followed by Firozabad (209), Mathura (176) and least from Manipuri. Knowledge and Attitude Score among both the groups i.e medical and dental was significant, while Practice Score was found non-significant. The Knowledge - Attitude Score and Knowledge – Practice score for both the groups was found to be significantly correlated. Knowledge – Attitude Score for DPs, and Knowledge-Attitude and Knowledge-Practice score of MPs were significantly correlated.

Conclusion: Early detection is the key to reduce the increasing burden of oral cancer Both general MPs and DPs possess sufficient knowledge of the signs and symptoms of malignant and premalignant oral cavity lesions for the sake of early and effective diagnosis. DPs had a better knowledge and practice regarding oral cancer.

Keywords: Head and Neck Cancer, Oral Cancer, Knowledge, Attitude, Practice.

INTRODUCTION

Head and neck cancer pose a great heath challenge due to late diagnosis and poor treatment outcome. Among various cancer of head and neck, cancer of lip and oral cavity is of utmost concern due to its complex anatomy and difficult reconstruction option available post-surgery.

Oral cancer is a major problem in the Indian subcontinent where it ranks among the top three types of cancer in the country.[1] Oral squamous cell carcinoma (OSCC) arising from the oral cavity and lips constitutes one of the most common types of malignancy in the head and neck region.[2]

Data from the Global Cancer Observatory (GCO) shows that the annual incidence of OSCC in 2020 was 377,713 cases worldwide, with the highest number recorded in Asia (248,360), followed by Europe (65,279) and North America (27,469).[3] According to the GCO, by 2040, the incidence of OSCC is predicted to increase by up to 40% with a corresponding increase in mortality.[2]

Smoking and alcohol consumption are two of the most recognized risk factors for oral cancer and work synergistically to increase the risk by up to 35%.[4]
Areca nut consumption also has a strong association with OSCC and is mainly observed in East Asian and Pacific populations.[2] Major risk factors for oral cancer are the use of tobacco, betel quid, and alcohol.[5,6]
A significant increasing trend in oral cancer relative proportion rate in Delhi among all cancer sites from 2004 to 2014 has been observed which is also coordinating with the steady increase in the incidence of oral cancer (lip, tongue, and mouth) among males and females from 2004 to 2014 in all the age groups.[7]
Oral cavity examination is crucial part of dental case history. It is very easy to perform and require minimal time & armamentarium. Premalignant and malignant lesions of oral cavity have clearly defined clinical features and thus can be detected through routine oral cancer screening. In fact, in India, 60%-80% of patients present with advance disease as compared to 40% in developed countries which is in consistent with patients presenting for medical care with more advance disease in India compared with developed countries with alarmingly reduced overall survival.[8]
Through routine oral cancer screening not only helps in early detection, early treatment, improved survival rate and good prognosis. Early detection and treatment will decrease the need for aggressive resection and reconstruction. Minimal treatment cost and ultimately improved quality of life.
Thus, medical and dental practitioners should possess basic knowledge for oral cancer as there graduation teaching curriculum. They should be trained in routine oral cancer screening and should identify premalignant and malignant lesions. There is increased number of cases of oral cancer in western Uttar Pradesh pertaining to tobacco habit (smoking and non-smoking form).
Sufficient data is not available in the literature regarding oral cancer awareness among medical and dental practitioners of western Uttar Pradesh.
Thus, this study aimed to assess the knowledge, attitude, and practices (KAPs) regarding Head & Neck Cancer (Oral cancer) among registered Medical and Dental practitioners in Agra Commissionary of Western Uttar Pradesh, India.

MATERIALS AND METHODS

Study Area and Study Population: The present study is cross-sectional, descriptive, questionnaire-based (Modified Jnanswar et al) carried out among the medical and dental practitioners in Agra division of Western Uttar Pradesh, i.e Agra, Firozabad, Mainpuri and Mathura conducted at Department of Dentistry, Autonomous State Medical College, Firozabad, Uttar Pradesh.
Ethical Clearance: The study was approved with Institutional Ethical Committee, ASMC, Firozabad.
Study Duration: The study duration was one year, from January 2024 to December 2024.
Study Design: The present study was cross-sectional, descriptive, questionnaire-based (Modified Jnanswar et al) study.
The questionnaire was in English language. Questionnaire was divided in following heading-

1. **Sociodemographic Data**


Questionnaire Knowledge, Attitude and Practice regarding Head & Neck Cancer

Sociodemographic Data

1. Name:
2. Gender: Male/Female
3. Mobile Number:
4. Date of Birth:
5. Type of Practitioner: Medical/Dental/Other
(If other, please specify):
6. Highest Qualification:
7. Registration Number (Medical/Dental /Other):
8. Area of Practice: Agra /Firozabad/Mainpuri/Mathura
9. Type of Practice: Government/Private/Personal/Other
(If other please specify):
10. Have you received any certified training in Head & Neck Cancer – Yes/No
If Yes, Please mention details-

2. **KAPs towards head and neck cancer - The part contained 28 items as follows**

a) 15 Knowledge (questions 1–15)
b) 7 Attitude (questions 16–22)
c) 6 Practice (questions 23–28)

For the purpose of analysis, each correct answer was given score "one" and wrong answers was given score "zero" for the items included in the questionnaire.
Inclusion Criteria
The study included registered Medical and Dental practitioners in Agra Commissionary of Western Uttar Pradesh. The list of all the registered medical and dental practitioners was obtained from the state directories of the Indian Medical Association (IMA) and Indian Dental Association (IDA) and concerned societies respectively. Agra Commissionary includes following four districts of western Uttar Pardesh-

1. Agra
2. Firozabad
3. Mainpuri
4. Mathura

Targeted Sample Size was 1000 (500 medical and dental practitioners in each group) from Agra Commissionary only.
Exclusion Criteria
Registered Medical and Dental practitioners outside Agra Commissionary of Western Uttar Pradesh and those who were not willing to participate in the study were excluded from the study.

Methodology: Participants were informed about the aim of this study either personally or telephonically and verbal consent was obtained and written documentation was done for same. Participation was voluntary. Questionnaires were given to them personally (hard copy of questionnaires) or through electronic media (soft copy of questionnaires via Whats app/registered e-mail). Individual participant's response was recorded (personally or via electronic media i.e wats app/ e-mail), in mastersheet.

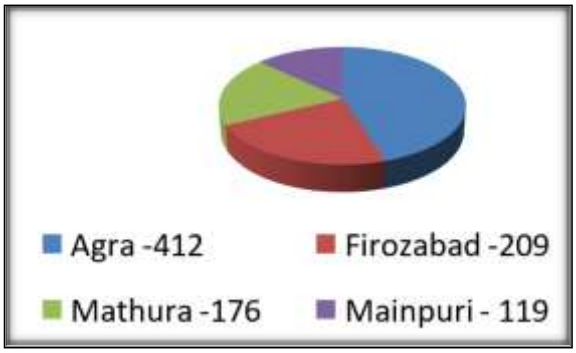
Statistical Analysis: Collected response data was transformed from precoded proforma to excel master file. 95% confidence interval was used to find the significance of proportion for KAPs. Chi – square test was used to test the significant difference in proportions and percentage between both the groups (Dental and Medical). Mean was compare using t-test. p less than 0.05 was considered statistically significant. Karl Pearson's coefficient correlation test was used to find the correlation between KAP among both the groups (Dental and Medical).

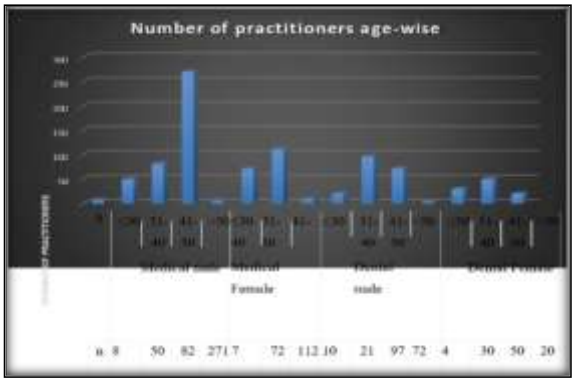
SPSS statistical software was used for analysis. Microsoft word and excel sheet was used to generate table and graphs of results.

RESULTS

The target sample for the study was 1000. Out of which, 916 practitioners responded to the questionnaire, which includes 304 Dental Practitioners and 612 Medical Practitioners. Thus the response rate was acceptable for the further study evaluation. Maximum practitioners were from Agra (412), followed by Firozabad (209), Mathura (176) and least from Manipuri (119) [Figure 1].

Out of 612 Medical Practitioners, 411 (67%) were male and 201 (33%) were female. Similarly, out of 304 Dental Practitioners, 200 (66%) were male and 104 (34%) were female. In both the groups, male to female ratio is nearly similar, showing predominance towards male practitioners [Figure 2].





Age-wise distribution of the practitioners shows predominance towards 41-50 years in both groups except medical male practitioners with more than 50 years (n=271) as shown in [Figure 3].

Comparison of Knowledge, Attitude and Practice score was done for both the groups. Knowledge and Attitude Score among both the groups i.e medical and dental was significant, while Practice Score was found non-significant.

Correlation between Knowledge, Attitude and Practice among both the group was done. The Knowledge - Attitude Score and Knowledge – Practice score for both the groups was found to be significantly correlated. Knowledge – Attitude Score for DPs, and Knowledge-Attitude and Knowledge-Practice score of MPs were significantly correlated.

Table 1: Comparison of Knowledge, Attitude and Practice score among study groups

Variable	Practitioners	N	Mean±sd	Significance
Knowledge	Medical	526	14.78±0.614	0.0001(Significant)
	Dental	390	14.64±1.056	
Attitude	Medical	526	6.80±0.519	0.0002 (Significant)
	Dental	390	6.68±0.809	
Practice	Medical	526	5.80±0.524	0.576 (NS)
	Dental	390	5.67±0.810	

Table 2: Relationship between Knowledge, Attitude and Practice among study groups

Practitioners	Variable	Knowledge	Attitude	Practice
Medical	Knowledge	-		-
	Attitude	Significant		-
	Practice	Significant	Significant	-
Dental	Knowledge	-		-
	Attitude	Significant		-
	Practice	Non-Significant	Non-Significant	-
Total	Knowledge	-		-
	Attitude	Significant		-
	Practice	Significant	Non-Significant	-

DISCUSSION

Oral cancer is the sixth most common cancer in the world. Globally 267,000 new cases and 128,000 deaths are reported annually, of which two-third of cases are contributed by the developing countries. It is associated with one of the most dismal 5-year survival rates of the major cancer types.

Most epidemiological studies showed that alcohol and smoking are the two major risk factors for head and neck cancer.[9] Being aware of the major risk factors for oral cancer and its associated conditions and the ability to identify the early lesions of oral cancer are therefore vital for both the prevention and early detection of the disease. Oral health also plays key role in oral cancer progression as nutritional status is also one important risk factor for oral cancer.[10]

Head and neck cancer are one of the most common malignancies prevalent in India with wide variations in risk factors, site of involvement, geographical, and demographical characteristics. The state of Uttar Pradesh has very high burden of HNC only second to the highest (54.48%), reported in Northeast. Western Uttar Pradesh have predominant burden of oral cancer attributed to increase use of non- smoking form of tobacco and related products.

There is plethora of premalignant lesions and disorder, population of this belt of Uttar Pradesh is suffering from. Identification of such lesion play crucial role in early management of oral cancer. Oral cancer has known risk factor like tobacco and alcohol. Oral Cavity is easily available for self-examination. Dentist have good knowledge of oral anatomy, thus opportunistic screening of oral cancer is possible.[11] Dental practitioners play important role in screening and detecting oral cancer.[12] Thus, there is need of good knowledge of risk factors of oral cancer among dental and medical practitioner.

MP's and DP's should be trained in taking good history of patients any past and current habit, its type, duration and frequency. Correlation of such habit with oral lesion presentation plays an important role in early detection of oral cancer.

Like general population MP's and DP's should not only have awareness regarding oral cancer, but should be knowledgeable regarding risk factors, early sign and symptoms and common oral cavity lesion (premalignant, potentially malignant and malignant lesions) which can be suspicious.

Both should be well trained in complete oral cancer screening. A well- structured teaching curriculum should be a mandatory part of BDS and MBBS degree programme which focus on prevention and early detection of oral cancer. Prevention and early detection are the key for controlling the high incidence and mortality rate of oral cancer. Oral cancer is a preventable disease; cessation of habit has strong positive effect on resolution and management of premalignant lesions.

General practitioners should have complete knowledge about through oral cavity examination for oral cancer screening, lymph node examination and investigation procedures available for early detection of oral cancer. As early detection improves 5 –year survival rate.

Oral cancer can occur anywhere in the mouth, including the lips, tongue, and throat, as well as the salivary glands, pharynx, larynx, and sinuses. A lot of patients with oral symptoms present at first to their general practitioner.

Early detection and diagnosis of this disease spectrum by not only the DPs, but also by the MPs is therefore of utmost importance in its successful treatment, and thus directly affecting prognosis.

Despite the fact that the oral cavity is accessible for visual examination and that oral cancers and premalignant lesions have well-defined clinical diagnostic features, oral cancers are typically detected in their advanced stages. The practitioner who deals with any kind of oral pathology must for this reason, be in a situation to identify all suspicious lesions and be prepared to ask for professional guidance when unsure.

At the same time, he or she should be able to refer the patient to the most appropriate discipline. As expected, notably, more DPs than MPs had a higher score for knowledge and practice questions. Interestingly, the MPs had a better attitude than the DPs regarding oral cancer.

This may be attributed to the fact that professional courses that familiarize DPs with the more common and important oral diseases enhance their diagnostic abilities than the MPs. There is need for improvement of the undergraduate curriculum in oral cancer in both medical and dental schools and for the provision of postgraduate and continuing education on this topic.

Dentists' attitudes related to oral and pharyngeal cancer suggest strongly that educational interventions for practitioners and dental students are necessary. Further training is required for both MPs and DPs to increase awareness of oral cancer and its associated risk factors and to strengthen the practitioners' abilities to diagnose potentially cancerous intra-oral lesions.

CONCLUSION

Early detection is the key to reduce the increasing burden of oral cancer Both general MPs and DPs possess sufficient knowledge of the signs and symptoms of malignant and premalignant oral cavity lesions for the sake of early and effective diagnosis. DPs had a better knowledge and practice regarding oral cancer. However, MPs had a better attitude related to oral cancer. More education is needed in dental colleges, and continuing education programs to enhance health professionals' knowledge of oral cancer risk factors and diagnostic concepts.

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