

Religion, Nutrition and Socioeconomic Factors: Influence on Head and Neck Cancer

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Abstract:

Background: Head and neck cancer is common in several regions of the world. Multiple factors can be associated with occurrence of head and neck cancer. Our study was aimed at finding the influence of religion, nutrition, socioeconomic factors on development of head and neck cancer. **Aims & objective:** To study whether religion, nutrition, socioeconomic factors have a role in the development of head and neck cancer. **Materials & methods:** This is a descriptive study done on 100 head and neck cancer patients admitted in oncology ward of a tertiary medical college hospital in a city located on west coast of India. The ethics committee approval was obtained. The purpose of study was explained to the patient and informed consent was obtained. A questionnaire was framed and prevalidated. After obtaining informed consent interviewer administered the questions in native language. **Inclusion criteria:** Patients diagnosed with head and neck cancers. **Exclusion criteria:** Patients with psychiatric disorder. The data collected were analysed by frequency and percentage. **Results:** A descriptive study was conducted among 100 Head and Neck Cancer patients. Low socioeconomic status as determined by Kuppuswamy socio economic status scale was common. Bearly community were least affected i.e. only 10 per cent patients. None of the 100 patients consumed processed food. 25 % patients did not consume even one serving of fruits per week. 57% patients consumed meat. Fish was consumed by 50% subjects with majority patients preferring fried form of fish. A significant amount of Pickles and salted food was consumed by 87% subjects. Deep fried food was preferred by 46% patients with refined oil being used in majority. Reheating and reusing of oil was practiced by more than 80% subjects. 66% patients have habit of smoking and 40% consumed alcohol. 22% did not have practice of brushing teeth and only 8% had habit of visiting their dentist for yearly check-up.

Conclusion: The development of head and neck cancers is influenced strongly by lifestyle factors. Risk factors like smoking are proscribed by certain religions. Bearly the religion at Mangalore do not commonly smoke or drink. We found that incidence of head and neck cancer was relatively lower in this community in our study. Reusing oil was also common among patients perhaps because of low socio economic status and poor awareness. It was worrying to note that even among patients with cancer, knowledge of risk factor is poor. Therefore this study underlines that the awareness of risk factors like smoking must be propagated.

Keywords: Religion, Nutrition, Socioeconomic Factors, Head And Neck Cancer

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I. Introduction:

Head and neck cancer is common in several regions of the world. The incidence of oral and pharyngeal cancers has shown an increasing trend worldwide. The mortality rates of patients with these malignancies also continues to increase.¹ According to World Health Organisation, 40% of the oral cancers which were diagnosed worldwide occurs in India, Pakistan, Bangladesh and Srilanka.² India has one of the highest rates of oral cancer in the world; accounting for one third of the total cancers and unfortunately this figure continues to rise. Oral cancer is one of the ten most frequent cancers occurring globally.³ In India, approximately 30- 40% of all cancer cases are oral cancers, which are much higher as compared to Western world.¹ The increasing prevalence of head and neck cancer may in part be due to factors influenced by socioeconomic factors like food and substance abuse. In developing countries like India, a higher proportion of patients are from lower socioeconomic classes. Multiple factors can be associated with occurrence of head and neck cancer. Our study was aimed at finding the influence of religion, nutrition, socioeconomic factors on development of head and neck cancers.

II. Aims & Objective:

To study whether religion, nutrition and socioeconomic factors have a role in the development of head and neck cancer.

III. Materials & Methods:

Source of data: This is a descriptive study done on 100 head and neck cancer patients admitted in oncology ward of a tertiary medical college hospital in a city located on west coast of India. Ethics committee approval was obtained. The purpose of study was explained to the patient and informed consent was obtained. A questionnaire was framed and prevalidated. After obtaining informed consent interviewer administered the questions in the patient's native language.

Study design: This is a descriptive study done on 100 head and neck cancer patients

Inclusion criteria: Patients diagnosed with head and neck cancers

Exclusion criteria: Patients with psychiatric disorder.

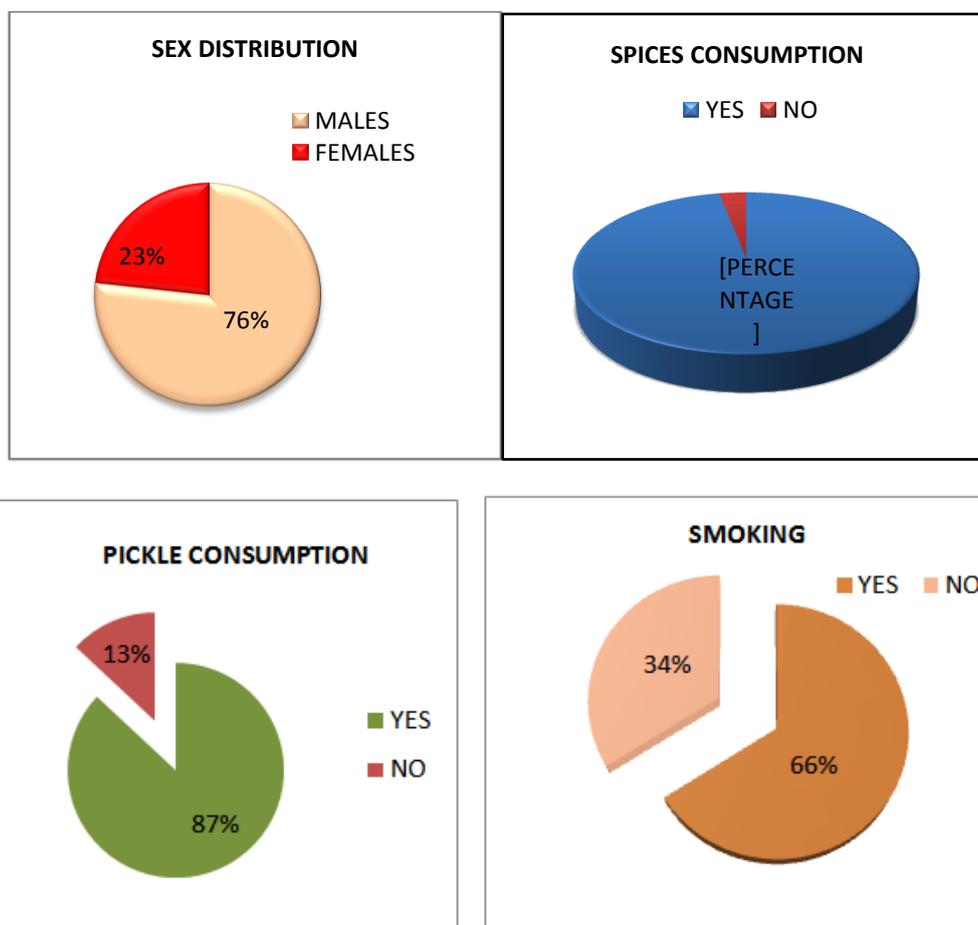
IV. Analysis:

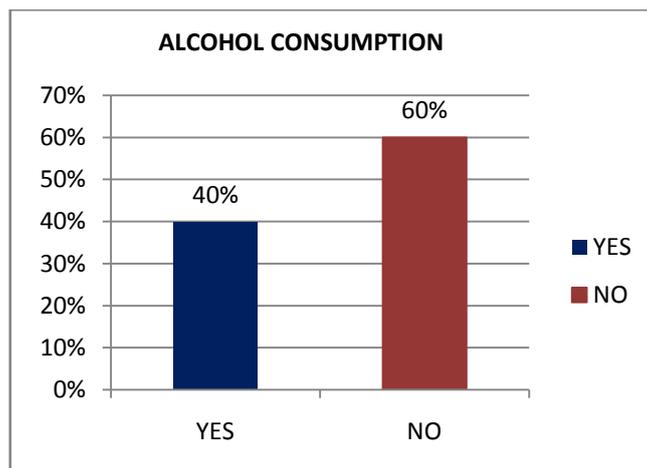
The data collected was transferred to an Excel data sheet and analysed by frequency and percentage.

V. Results:

Data collected among total of 100 head and neck cancer patients admitted in oncology ward of a tertiary medical college hospital was analysed.

More than 60% of patients were above the age of 50 years with majority being males. Beary community was least affected i.e. only 10 per cent patients. Low socioeconomic status as determined by Kuppuswamy socio economic status scale was common. None of the 100 patients consumed processed food. 25 % patients did not consume even one serving of fruits per week. 57 (57%) patients consumed meat. Fish was consumed by 50% subjects with majority patients preferring fried form of fish. A significant amount of Pickles and salted food was consumed by 87% subjects. Deep fried food was preferred by 46% patients with refined oil being used in majority. Reheating and reusing of oil was practiced by more than 80% subjects. 66% patients smoked and 40% consumed alcohol. 22% did not have practice of brushing teeth and only 8% had habit of visiting their dentist for yearly check-up. None of them had prior history of exposure to radiation. 3% patients had no awareness and education regarding risk factors; among others Newspaper was the common source of awareness and education.





VI. Discussion:

In our study majority of the patients were males (76%). High proportion of cancer among males may be due to higher prevalence of tobacco consumption among males.^{4,5} According to Abdoul et al it was found that religion did not show any association with development of head and neck cancer.⁶ But according to our study some communities do not smoke or consume alcohol ; incidence of cancer was found to be less in that community. Majority of the patients were from a low socioeconomic status. The lower socioeconomic status may be a risk factor for poor oral hygiene thereby further increasing the risk of oral cancer.⁷ Intake of fibre was found to be less among the subjects which goes along with the study done in United States which concluded that the higher intake of total fibre had a lower risk of head and neck cancer.⁸ A significant amount of Pickles and salted food was consumed by 87% subjects. Consumption of salted foods is a risk factor for nasopharyngeal cancer which was observed in elevated rates in natives of Southeast Asia, Arctic region, the Arabs of North Africa and parts of the Middle East.⁹ A case control study of combined effect of tobacco and alcohol on laryngeal cancer risk was studied which suggested that there was an increased multiplicative risk of cancer with use of cigarette smoking and alcohol intake.¹⁰ In our study majority of patients (66%) smoked and 40% consumed alcohol.

VII. Conclusion:

The development of head and neck cancers is influenced strongly by lifestyle factors. Risk factors like smoking are proscribed by certain religions. In view of this we wanted to find out if the development of head and neck cancer is influenced by religion itself. Beary the religion at Mangalore do not commonly smoke or drink. We found that incidence of head and neck cancer was relatively lower in this community in our study. Reusing oil was also common among patients perhaps because of low socio economic status and poor awareness. It was worrying to note that even among patients with cancer, knowledge of risk factor is poor. Therefore this study underlines that the awareness of risk factors like smoking must be propagated.

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