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Original Research

Assessment of prevalence of Gutkha chewing among patients attending the periodontology department of Patna dental college & hospital: A clinical study

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ABSTRACT

Background: People mostly use *paan* and *gutkha* due to a lack of awareness and education. Gutkha is a mixture of powdered areca nut and tobacco. Hence, we planned the present study to assess of prevalence of Gutkha chewing among patients attending the periodontology department of Patna dental college & hospital. **Materials & methods:** A total of 252 patients attending the department of Periodontology for oral prophylaxis were included in the present study. Detailed information in relation to the type, quantity and frequency of Tobacco and Gutkha intake was obtained. All the details were recorded Microsoft excel sheet. **Results:** The overall prevalence of Gutkha chewers in the present study was found to be 59.52 percent. Prevalence of Gutkha chewers was significantly higher in the present study among subjects of the age group of 30 to 50 years (32.54 percent). Prevalence of Gutkha chewers was also significantly higher among males. **Conclusion:** In Patna, there is significantly higher prevalence of Gutkha chewers. Therefore, various cancer awareness programs are recommended for increasing awareness about ill effects of Gutkha chewing among general population.

Key words: Gutkha, Periodontology, Prevalence

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INTRODUCTION

The term “smokeless tobacco” refers to the consumption of unburned tobacco, in the form of chewing, spitting, dipping, and snuff. Consumers chew the tobacco in the mouth and spit out the juice that builds up. Nicotine and other constituents are absorbed in the lining of oral cavity.^{1, 2} People mostly use *paan* and *gutkha* due to a lack of awareness and education. Gutkha is a mixture of powdered areca nut and tobacco, marketed in pre packaged pouches of 5–10 g. There is a sudden upsurge in the use of gutkha recently, due to easy availability, attractive colorful packs, longer shelf life and low cost.³⁻⁵ Smokeless tobacco use is also associated with the increasing risk of cancer. Smokeless tobacco is also highly addictive and causes cancer of the head and neck, oesophagus and pancreas, besides many oral diseases.⁶ Hence; under the light of above mentioned data, we planned the present study to assess of prevalence of Gutkha chewing among patients attending the periodontology department of Patna dental college & hospital.

MATERIALS & METHODS

The present study was conducted in the department of periodontology of Patna Dental College & Hospital and it included assessment of prevalence of Gutkha chewing among patients attending department of Patna dental college & hospital. A total of 252 patients attending the department of Periodontology for oral prophylaxis were included in the present study. Inclusion criteria for the present study included:

- Subjects between the age group of 25 to 60 years,
- Subjects with negative history of any other systemic illness,
- Subjects with negative history of any known drug allergy

Detailed demographic details of all the subjects were obtained. Clinical oral examination of all the subjects was carried out using mouth mirror and probe. Detailed clinical history of all the patients was obtained. Detailed information in relation to the type, quantity and frequency of Tobacco and Gutkha intake was obtained. All the

details were recorded Microsoft excel sheet and were analysed by SPSS software. Chi- square test was used for assessment of level of significance.

RESULTS

In the present study, a total of 252 patients attending the department of periodontology of Patna Dental College & Hospital, for oral prophylaxis were included. Mean age of the patients of the present study was 41.3 years. 21.03 percent of the patients belonged to the age group of less than 30 years. 48.02 percent of the patients belonged to the age group of 30 to 50 years. 30.95 percent of the patients belonged to the age group of more than 50 years. 60.32 percent of the patients of the present study were males, while the remaining 39.68 percent of the patients were females. The overall prevalence of Gutka chewers in the present study was found to be 59.52 percent. Prevalence of Gutka chewers was significantly higher in the present study among subjects of the age group of 30 to 50 years (32.54 percent). Prevalence of Gutka chewers was also significantly higher among males.

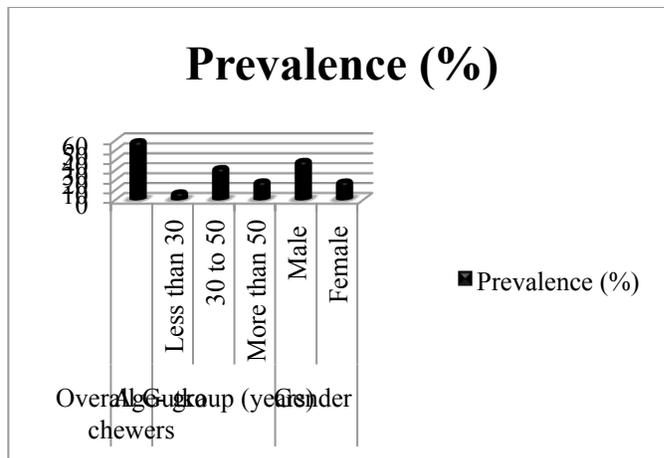
Table 1: Demographic data

Parameter		Number of subjects	Percentage of subjects
Age- group (years)	Less than 30	53	21.03
	30 to 50	121	48.02
	More than 50	78	30.95
Gender	Male	152	60.32
	Female	100	39.68

Table 2: Prevalence of Gutka chewers

Parameter		Number of subjects (out of 252)	Prevalence (%)
Overall Gutka chewers		150	59.52
Age- group (years)	Less than 30	20	7.94
	30 to 50	82	32.54
	More than 50	48	19.04
Gender	Male	100	39.68
	Female	50	18.94

Graph 1: Prevalence of Gutka chewers



DISCUSSION

A total of 252 patients attending the department of periodontology of Patna Dental College & Hospital, for oral prophylaxis were included. Mean age of the patients of the present study was 41.3 years. Nigam NK et al determined the prevalence and severity of oral submucous fibrosis (OSMF) among habitual gutkha, areca nut and pan chewers of Moradabad, India. A survey was conducted for a period of one year in east, west, north and south zones of Moradabad district, Uttar Pradesh. One thousand habitual chewers were selected as study participants, using a stratified random sampling technique, between the ages of 11–40 yrs, with a habit of chewing gutkha, areca nut, pan for over a year. The prevalence of OSMF was 6.3% (63/1000) and gutkha chewing was the most common abusive habit (42/63) amongst OSMF patients. Stage 1, Stage 2, Stage 3 OSMF was seen in 28, 19 and 16 patients respectively. Restricted mouth opening, altered taste perception and defective hearing was observed in 37/63 (58.7%), 24/63 (38.09%) and 14/63 (22.22%) respectively. Their study showed a prevalence of 6.3% OSMF among habitual chewers of Moradabad.⁷

In the present study, 21.03 percent of the patients belonged to the age group of less than 30 years. 48.02 percent of the patients belonged to the age group of 30 to 50 years. 30.95 percent of the patients belonged to the age group of more than 50 years. In another recent study on tobacco use among 400 male medical students from the state of Bihar in north India, 43% of the participants were regular tobacco users and a few (0.7%) areca-nut users. Occasional use of tobacco and areca-nut was found among 9.2% and 27.5% cases, respectively. Only less than 13% of the students were found to be aware of the harmful effects of different tobacco products. Nearly 50 (12.5%) students were regular users of manufactured smokeless tobacco products (MSTP) or gutka. Initiation of tobacco use peaked at class ten (32%) or classes 11 and 12 (32%), equal to the ages of 15–17. The factors found significant in leading to a higher tobacco consumption included lack of family supervision among hostels, peer influence, lack of awareness about the harmful effects of different tobacco products, no exposure to clinical cases of tobacco related disorders, and easy availability of these products.⁸

60.32 percent of the patients of the present study were males, while the remaining 39.68 percent of the patients were females. The overall prevalence of Gutka chewers in the present study was

found to be 59.52 percent. Prevalence of Gutka chewers was significantly higher in the present study among subjects of the age group of 30 to 50 years (32.54 percent). Prevalence of Gutka chewers was also significantly higher among males. Singh A et al examined the regional variations, and socioeconomic, demographic and other correlates of smoking, smokeless tobacco and dual use of tobacco in India. They analyzed a cross sectional, nationally representative sample of individuals from the Global Adult Tobacco Survey in India (2009–10), which covered 69,296 individuals aged 15 years and above. The prevalence of different forms of tobacco use varies significantly by states. The prevalence of tobacco use increases concomitantly with age among females. Middle-aged adult males had higher prevalence of tobacco use. Age, education and region were found to be significant determinants of all forms of tobacco use. Adults from the poor household had significantly higher risk of consuming smokeless tobacco. Lack of awareness about the selected hazards of tobacco significantly affects tobacco use. There is an urgent need to curb the use of tobacco among the sub-groups of population with higher prevalence.⁹

CONCLUSION

Under the light of above obtained results, the authors conclude that in Patna, there is significantly higher prevalence of Gutka chewers. Therefore, various cancer awareness programs are recommended for increasing awareness about ill effects of Gutka chewing among general population. However; further studies are recommended for better exploration of results.

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