

ORIGINAL ARTICLE

PREVALENCE OF HABIT OF TOBACCO AND THEIR EFFECTS: A CLINICAL STUDY

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ABSTRACT:

Introduction: Tobacco usage is increasing day by days. It has now become status symbols especially in urban cities. Their ill effects depend upon types of tobacco consumed by persons. **Materials and Methods:** The study was conducted in Oral Medicine & Radiology department among patients visiting the department. Out of 9800 patients, 7500 patients had habit of tobacco usage in various forms. **Results:** It was found that the prevalence of habits was 70% in males and 30% in females. Prevalence of oral mucosal lesions was 8.5% in males and 3.5% in females. **Conclusion:** The numbers of tobacco users are increasing day by days and hence their harmful effects. So immediate steps should be taken to curb the habit.

Key words: Habit, Oral cancer, Prevalence, Tobacco.

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INTRODUCTION

Consumption of various tobacco products is since 600 AD. It is becoming an upcoming trend for today's world. It causes both premalignant lesions and conditions depending upon type of usage. Tobacco is the second major cause of death in the world.¹ The death toll from tobacco consumption is now 4.9 million people a year. If the present consumption pattern continues, the number of deaths will increase to 10 million by the year 2020.² Chewing, smoking, and consumption of alcoholic beverages have become a common social habit in India. Epidemiologic studies have demonstrated a wide variety in prevalence rates in oral lesions in different population due to various

habits.³ Tobacco habit is prevalent both in males and females however higher tendency in males as compare to females. Furthermore, the prevalence was higher among the rural population and those with no formal education. It has been reported that the oral mucosal disease may affect 25–50% of individuals having various habits, depending on the population studied.⁴

It is available in smoking and smokeless tobacco. Cigarette smoking is more common in urban than rural area. It is available in different forms like pan, pan masala, khaini, mishri, zarda, mawa, supari.⁵ Smokeless tobacco contains, arecanut, tobacco, catechu, slaked lime. It causes various lesions like

leukoplakia, tobacco pouch keratosis, smokers palate, smokers melanosis etc.⁶

This study was conducted to determine prevalence of usage of different forms of tobacco and their deleterious effects on mucosa in different age, sex, and literacy level.

MATERIALS AND METHODS

A total of 9800 patients visited the outpatient department of Oral Medicine & Radiology during the period of January 2016 to March 2016 among which 7500 met the inclusion criteria and these constituted the study sample. Examination was carried out in each individual. A formal ethical clearance to conduct this study was obtained by the ethical committee of the institution. Patients selected for the study were explained in detail about the condition affecting their oral cavity. The diagnosis of the lesion was made based on history, clinical features, according to standard guidelines. Results thus obtained were tabulated and subjected to statistical analysis. P value less than 0.05 was considered significant.

RESULTS:

Table I: Age and Sex Distribution of Patients

AGE GROUP	MALE	FEMALE
10-20	1312(25%)	450(20%)
21-30	735(14%)	585(26%)
31-40	1470(28%)	607(27%)
41-50	1365(26%)	495(22%)
51-60	368(7%)	113(5%)
TOTAL	5250	2250

Table I shows age and sex distributions of patients. Out of 7500 patients, 5250 were male and 2250 were female. In age group from 10- 25, 25% males and 20% females were present. In age group from 21- 30, 14% males and 26% females were present. Age group 41-50, 26% males and 22% females and age group 51-60, 7% males and 5% female were seen. Highest prevalence was seen in age group 31- 40 years in both male and females.

Table II shows prevalence of various mucosal lesion among males and females. Out of 7500 patients, only 12% patients (8.5% males, 3.5% females) showed oral mucosal lesion. Leukoplakia was more prevalent among all oral mucosal lesions in both male and females. It was seen in 15 males, 7 females followed by smoker’s palate, 14 in males, 4 in females, tobacco

pouch keratosis, 12 in males, 4 in females, smoker’s melanosis, 10 in males, 6 in females, oral submucous fibrosis, 8 in males, 3 in females, chemical burn, 8 in males, 3 in females, lichenoid reaction, 6 in males, 3 in females and other lesions, 4 in males and 2 in females.

Table II: Prevalence of various mucosal lesions

HABITS	MALE	FEMALE
Smokers melanosis	10	6
Smokers palate	14	4
Oral submucous fibrosis	8	3
Leukoplakia	15	7
Lichenoid reaction	6	3
Tobacco pouch keratosis	12	4
Chemical burn	8	3
Others	4	2
Total	77	32

Table III: Distribution of types of tobacco usage among male and females

TYPE	MALE	FEMALE
CIGARETTE	3150(60%)	1146(51%)
BIDI	473(8%)	270(12%)
GUTKA	474(9%)	113(5%)
PAN	366(8%)	338(15%)
MULTIPLE	787(15%)	383(17%)
TOTAL	5250	2250

Table III shows distribution of various tobacco products used by males and females. Cigarette usage is highest both in males (60%) and females (51%), followed by multiple usage, 15% in males and 17% in females, gutka 9 % in males, 5 % in females, bidi 8 % in males, 12 % in females, pan 8% in males, 15 in females.

Table IV: Awareness level of ill effects of tobacco usage by males and females

AWARENESS LEVEL	MALE	FEMALE
AWARE	53%	47%
UNAWARE	49%	51%

Table IV shows awareness level of ill effects of tobacco usage by males and females. 53% of males and 47% of females were aware of ill effects whereas 49% male and 51 % females were unaware of ill effects.

DISCUSSION

In India, there are 240 million tobacco users accounting for one-fifth of the world's tobacco consuming population. India is world's third largest tobacco growing country.⁷ In our country, various forms of smoking and chewing tobacco are practiced by the people. Most common form is bidi and cigarette followed by cherrut or chutta, chillum hukli and hukkah which is rare.⁸ Bidi smoking is predominant in many parts of Rural India. When compared to cigarettes, bidis produce only a smaller volume of smoke. But the smoke which is generated is rich in higher concentrations of several toxic agents such as hydrogen cyanide, carbon monoxide, ammonia, and carcinogenic hydrocarbons. Bidi smoking is also considered to cause about 2–3 times greater nicotine and tar inhalation than conventional cigarettes.⁹

The prevalence of deleterious habit in our study was 76.5% with male (70%) population being more prone than females (30%). The difference was statistical significant. This is in accordance with the other studies. The reason being, In India males are more dominating in family and they consume tobacco as society symbol whereas females are still not going outside and not working much.

In the study, age group 31- 40 showed highest tobacco users both in males and females. This age group is mostly working age group. They are exposed to external environment and hence prevalence is more. Results were statistically significant among different age groups. This is in accordance to study by Pednekar and Gupta in 2004.¹⁰

In our study, maximum cases of leukoplakia were observed. This is due to the fact that in our studies 60% of patients were using cigarette in form of smoking tobacco hence the numbers were higher as compare to other mucosal lesion. Similar results were obtained by various authors.^{11,12}

Multiple habit reported by the patient in the present study was 15% in males and 17% in females. This may be due to modern society where multiple forms are used nowadays. This is supported by a study done Sujatha et al., 2012.¹³

There was no significant difference among different forms of tobacco usage among males and females. This may be due to cultural belief that tobacco is remedy for various ailments.

In our study, 53% of males and 47% of females were aware of ill effects of tobacco. Whereas 51% of males and 49% of females were unaware of tobacco ill

effects. Kumar et¹⁴ al reported 82% of subjects who were not aware of ill effects.

CONCLUSION

Males were more prevalent than females. Cigarette smoking was more among different forms of tobacco. Leukoplakia was most commonly seen among various oral mucosal lesion. Level of unawareness was more. Hence country like India, more efforts should be done to educate the people for various ill effects of tobacco use and their effects on general body as well.

REFERENCES

1. Hrywna M, Delnevo CD, Pevzner ES, Abatemarco DJ. Correlates of bidi use among youth. *Am J Health Behav* 2004;28:173-9.
2. Jaber MA, Porter SR, Gilthorpe MS, Bedi R, Scully C. Risk factors for oral epithelial dysplasia – The role of smoking and alcohol. *Oral Oncol* 1999;35:151-6.
3. Rani M, Bonu S, Jha P, Nguyen SN, Jamjoum L. Tobacco use in India: Prevalence and predictors of smoking and chewing in a national cross sectional household survey. *Tob Control* 2003;12:e4.
4. Saraswathi TR, Ranganathan K, Shanmugam S, Sowmya R, Narasimhan PD, Gunaseelan R. Prevalence of oral lesions in relation to habits: Cross-sectional study in South India. *Indian J Dent Res* 2006;17:121-5.
5. Mathew AL, Pai KM, Sholapurkar AA, Vengal M. The prevalence of oral mucosal lesions in patients visiting a dental school in Southern India. *Indian J Dent Res* 2008;19:99-103.
6. Colombo P, Scarpino V, Zuccaro P, Apolone G, Gallus S, La Vecchia C. Smoking in Italian women and men, 2001. *Tumori* 2002;88:10-2.
7. Summers RM, Williams SA, Curzon ME. The use of tobacco and betel quid ('pan') among Bangladeshi women in West Yorkshire. *Community Dent Health* 1994;11:12-6.
8. Rahman M, Fukui T. Bidi smoking and health. *Public Health* 2000;114:123-7.
9. World Health Organization and Centers for Disease Control and Prevention. Report on Tobacco Control in India. New Delhi, India: Ministry of Health and Family Welfare, Government of India; 2004. p. 2.
10. Pednekar MS, Gupta PC. Tobacco use among school students in Goa, India. *Indian J Public Health* 2004;48:147-52.
11. Mehta FS, Bhonsle RB, Murti PR, Daftary DK, Gupta PC, Pindborg JJ. Central papillary atrophy of the tongue among bidi smokers in India: A 10-year study of 182 lesions. *J Oral Pathol Med* 1989;18:475-80.
12. Aruna DS, Prasad KV, Shavi GR, Ariga J, Rajesh G, Krishna M. Retrospective study on risk habits among

- oral cancer patients in Karnataka Cancer Therapy and Research Institute, Hubli, India. Asian Pac J Cancer Prev 2011;12:1561-6.
13. Sujatha D, Hebbar PB, Pai A. Prevalence and correlation of oral lesions among tobacco smokers, tobacco chewers, areca nut and alcohol users. Asian Pac J Cancer Prev 2012;13:1633-7.
14. Kumar S, Pandey U, Bala N, Tevar V, Oanh KT. Tobacco habit in northern India. J Indian Med Assoc 2006 Jan. 104(1): 19-24.

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