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EDITORIAL

Oral Smokeless Tobacco Use with Special Reference to India

*Asha Pratinidhi**

Krishna Institute of Medical Sciences Deemed University,
Karad – 415539, Dist. Satara, (Maharashtra), India

The term smokeless tobacco is used to describe tobacco consumed in unburnt form orally or nasally [1, 2, 3].

Smokeless tobacco products have been in existence for thousands of years among populations of South America and Southeast Asia. Smokeless tobacco products differ with respect to their composition, nicotine delivery characteristics and method of use [4]. They range from crude twists of cured tobacco leaves to the highly engineered moist snuff products or Gutkha. Oral use of tobacco is either in chewable form or as a dentifrice. Fine tobacco powder mixtures, dry snuffs are usually inhaled. Nicotine is absorbed through mucosa of the mouth or the nasal passages [5].

Oral use of smokeless tobacco is widely prevalent in the world. In Southeast Asia region, including India, it is consumed traditionally which is showing increasing trend. In the developed world, the prevalence of smokeless tobacco users has increased several fold in last three to four decades due partly to sophisticated technique used for curing of tobacco, addition of several substances to alter flavour and pH. It is estimated that about 250 million people use smokeless tobacco products. About 17% population of Southeast Asia use oral tobacco of whom 95% are Indians. Dried and roasted or unroasted tobacco leaves are used with betel leaves and / or lime and /or pieces of areca nut, very often with some other spices. Use of tobacco containing Gutkha is on the increase. The quid is kept in the mouth for a considerable period of time. Roasted or unroasted tobacco powders, (Mishri, Masheri, Misheri) or pastes are applied to the gums and teeth. These oral preparations are absorbed through oral mucosa [1].

The ill effects of smoking form of tobacco are very well known and documented but the effects of smokeless forms are underestimated. Just like smoking, smokeless form increases the risk of many cancers, heart attack, stroke, peripheral vascular disease, osteoporosis, chronic obstructive pulmonary disease, diabetes and adverse reproductive outcomes.

Nicotiana rustica which is a common tobacco species for oral tobacco use contains higher concentrations of tobacco specific nitrosamines than *N. tabaccum* which is used in smoking form [6, 7].

Tobacco Use in India:

The prevalence of smokeless tobacco use varies from a high (38%) in the Eastern region to a low (7%) in the Northern region. More than one-third (35%) of adults in India use tobacco in some form, 21 percent of adults use only smokeless tobacco, 9 percent only smoke tobacco and 5 percent smoke as well as use

smokeless tobacco. Tobacco use is high (18%) even among population aged 15-24 years. Prevalence of tobacco use decreases with increase in education among both males and females. Most of current smokers and smokeless tobacco users use tobacco every day. Prevalence of tobacco use is higher among rural (38%) than urban (25%) population. Two in every five daily tobacco users are aged 20-34 years and start using tobacco before attaining the age of 18 years. There is a high prevalence of oral tobacco use among females. One fourth of females initiate tobacco usage before the age of 15 years. Three in every five daily tobacco users use tobacco within half an hour after waking up [8].

Cancer of mouth and pharynx has highest prevalence and high mortality rate among all sites of cancers in males and forth highest prevalence and a high mortality rate among females in India. 90% of oral cancers are associated with consumption of smokeless form of tobacco or smoking. There is an increase in incidence of oral sub-mucous fibrosis and cases of oral cancer in younger age groups [9]. This is related to widespread Gutkha use among young individuals due to targeted advertising and promotion campaigns. Use of smokeless form of tobacco is common in pregnant women and causes adverse reproductive outcomes in the form of low birth weight (-105gms), lower gestational period (-6 days) and higher stillbirth rates (R.R 2.6) [10].

Smokeless tobacco use leads to addiction showing drug dependence, tolerance and withdrawal symptoms. An impediment to developing addiction is side effects which limit initial pleasure. This was recognized by the smokeless tobacco industry and low nicotine dosage products with flavoring agents were used to obviate toxic effects like nausea, vomiting, giddiness etc. which may cause the novice users to abstain from its further use.

Another aspect of tobacco which facilitates addiction is ready availability, affordability and acceptability by the community. Usually there is consent by the parents for smokeless tobacco use than other addictive substances. Consumption of smokeless form of tobacco by women is well accepted in the Indian community although smoking by women is not well accepted. India is the second largest consumer of tobacco products and third largest producer of tobacco in the world [2].

The deaddiction drives and legislative control over production and consumption of tobacco have economical as well as political implications. In spite of knowing all health hazards, due to addictive nature of tobacco and lack of political will the epidemic of smokeless tobacco has remained unabated.

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**Corresponding Author: Dr. Asha K. Pratinidhi, Director of Research, Editor in Chief, JKIMSU, Krishna Institute of Medical Sciences Deemed University,* Karad – 415 539,
District - Satara, (Maharashtra), India
E-*mail-ashapratinidhi@gmail.com* Cell No -9371100730, Fax No. 02164 - 242195