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OF TOBACCO & TOBACCO USE

II: Methods of Use of Tobacco

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Use of Tobacco is broadly classified into two groups – (a) Smoking Tobacco, and, (b) Non-smoking or Smokeless Tobacco. It is said that smoking tobacco was first invented. However, the actual history is obscure. Nature of smoking and non-smoking tobacco varies worldwide.

The following Table (Table 1) shows the major types/ means of tobacco use in India.

Table 1
Major types of tobacco use.

Smoking Tobacco	Cigarette, Cigar, Cigarrillo, Cheroot, Pipe, Hooka, Hookly, Bidi (Biri) Chillum, Chutta, Reverse Chutta, Dhumti, Reverse Dhumti, Keeyo, Kreteks, .	
Non-smoking Tobacco	Inhalation	Snuff
	Chewing	Khaini, Zarda, Paan Masalla, Mawa, Meetha Mawa (often used with Paan, Areca nut and lime), Mainpuri Tobacco, Kiwam, Gundi, Kadipuddi, Hogesoppu, Naswar, Pattiwalah, Snus, Nicotinated chewing –gum.
	Oral Application	Mishri, Gul, Bajjar, Gurakhu, Tobacco toothpaste (Lal Dantmajan), Creamy snuff.
	Drink	Tuibur, Hidakphu

A. SMOKING TOBACCO

Cigarettes

This is the commonest form of smoking in the world. In India, consumption of cigarettes is less than that of Bidi. Cigarettes come in different lengths, blends and “ends” (filtered/unfiltered). Manufacture of cigarette is a subject by itself. The varieties of cigarette tobacco depend primarily upon the genus (*Nicotiana tabacum*, *Nicotiana rustica* and *Nicotiana suaveolens*). Brazilian and Mexican tobacco is made from *N. tabacum*. Virginia and Floridan tobacco is made from *N. rustica*. Australian indigenous tobacco is made from *N. suaveolens*. The flavour of cigarette tobacco also depends upon harvesting. There are two methods of harvesting – “Priming” and “Stalk-cutting”. In priming, individual leaves are cut; 2-3 leaves from the base are cut at a time. Oriental and Turkish tobacco are harvested by priming. In “stalk-cutting”, entire plant is harvested by cutting stalk at ground level. Cigar tobacco, Burley tobacco and Maryland tobacco are harvested in this fashion. After harvesting, tobacco leaves are “cured”. Technically, curing means drying tobacco leaves by regulated regimes of ventilation, temperature, smoke, humidity and light. Curing modifies some catabolic processes inside the substance of the leaf which alters the flavour and taste of the manufactured cigarettes. Curing is mainly of 5 types – Flue Curing, Fire Curing, Air Curing, Sun Curing and Mixed Curing.

Filters in a cigarette helps to reduce dry particulate matter, nicotine and phenol content of the smoke although the relative concentration of carbon monoxide (CO) may increase. The major components of the filters are (a) Cellulose acetate (b) Plasticizer like TEGDA (Triethylene Glycerol Diacetate) (c) Crepe paper, and (d) Activated carbon. There are 5 broad types of cigarette filters – (1) Uniform Type (2) Tandem Type (3) Sandwich Type (4) Mixed Type, and (5) Ventilated type. It is the ventilated type that reduces the relative concentration of carbon monoxide in the inhaled smoke.

Bidis

It is the most popular smoking form in India and accounts for consumption of about one third of indigenously produced tobacco. Each bidi contains about 0.2 g of sun-dried flaked tobacco rolled in a piece of dried “Kendu” or other leaf. Their tar and nicotine content is more than that of cigarettes.

Cigars

These are made of air-cured fermented tobacco. They are large thick pieces with multiple binders. Both the ends remain closed. They come in various grades and flavours. They are commonly used in countries of South America and at some places of continental Europe.

Cheroots

A cheroot is a roll made from heavy-bodied tobacco leaves. They are actually small cigars with both ends cut off. They are sold unwrapped. There is only a single binder. In India, smoking Cheroot is sporadic. It is common in Denmark (especially among females) and Burma (even in children).

Keeyo

Keeyo is a variant of Cheroot used in Burma and Thailand. It is a long (about 30 cms) cheroot containing finely cut tobacco rolled in a piece of bark of the plant Keeyo (*Streblus asper* L.). The typical pungent-aromatic odor of Keeyo is due to the burning of the bark. At times, the wrapper is made from piece of a banana leaf or corn leaf.

Kreteks

Kreteks are also variants of Cheroots. They are used in Indonesia since early 1820s. They are exclusively hand-made. They contain a mixture of tobacco, cloves and cocoa. The smoke has a very sweet smell and flavour. Like Bidis, their tar and nicotine content is much higher than cigarettes.

Chuttas

Chuttas are coarsely prepared cheroots. About one tenth of the indigenously produced tobacco in India is made into Chuttas. About 3,000 million pieces are manufactured and consumed in India annually. Chuttas are smoked mostly along the coastal region of Andhra, Tamilnadu and Orissa.

Practice of smoking Chutta in a reverse fashion (lighted end inside the mouth) is common among the people of Visakhapattanam and Srikakulam Districts of Andhrapradesh. The practice is more common among women than men. The idea of reverse smoking possibly came from American Indians ("Red Indians"). Still now, this habit is widely practiced among rural population in different countries in South America, the Caribbean and Sardinia. The habit reached India with the Dutch marines and, hence, it is common among the coastal people of India as mentioned above.

Dhumti

Dhumtis are hand-rolled tobacco encased in dried leaves of other plants. The shape is conical. Dhumti smoking is prevalent among the indigenous people of Goa. Reverse Dhumti smoking is also known. Dhumtis are not sold in the market. They are hand-rolled by the smoker.

Pipes

Pipes are of different types. The modern European pipes are usually short-stemmed. In Southeast Asia, indigenous people often smoke long-stemmed pipes. Some pipes are fitted with filters. Attachment of water-filter is also known (Hoocum pipe in Kolkata).

Hookas

The water-filtration system was originally developed in India just after its introduction at the Moghul court (vide Part I: "Of Tobacco and Tobacco Use: Some Historical Aspect" by the same author). These well-decorated large pieces (Gargaras) are seldom used nowadays. Smaller, more portable Hookas are now used. Use of Hooka is mostly limited to UP, Bihar, Part of MP and West Bengal. Special tobacco blends are available for consumption in Gargaras and Hookas. Apart from tobacco, the preparations contain other substances to increase the flavour and smell. In areas of Bihar, it has been found that it is the women who predominantly smoke Hookas. As Hookas evolved in India, similar water filtration system evolved in various regions of the world. Thus, this system of smoking is still seen in Middle East, South-east Asia and Oceania. Indigenous people of Papua New Guinea use very small hookas. In Thailand (Karen Tribe), very long water pipes (about a meter long) are usually in vogue.

Hooklis

Hooklis are clay pipes where tobacco is packed at one end and it is smoked from the other end. This practice is found mostly in Western India, especially in Gujarat.

Chillum

Chillums are clay pipes used extensively in Northern India. The chillums were used in India for smoking opium and other narcotics for long time. After introduction of tobacco in India, chillums found use in smoking tobacco as well. Often, opium and other narcotics are mixed with tobacco and smoked in Chillums. Chillums are often smoked in groups. Chillum smoking needs strong pulmonary efforts and the entire smoke is deeply inhaled.

B. NON-SMOKING (SMOKELESS) TOBACCO

Plain Chewing Tobacco

Rural people in Northern India commonly chew tobacco without added materials. The tobacco used is usually raw. However, finely cut pure tobacco leaves are also available commercially for chewing. Survey in UP and Gujarat showed that use of pure raw tobacco for chewing is usually a rarity (2-3% of tobacco chewers).

Kaddipudi & Hogesoppu

Kaddipudi (“Powdered sticks” in Kannada) is the cheapest form of chewing tobacco. The petiole and stalks of dried tobacco leaves are powdered. This is then taken raw. In a variant form, this powder is mixed with sugar molasses and made into bricks and blocks that are sold after drying. Hogesoppu is a better form of powders tobacco leaves from where the petioles and midribs are removed. This is either used as a dry powder for consumption or used as a dressing of Paan.

Khaini

Khaini is a mixture of naturally cured sun-dried tobacco leaves and slaked lime. The mixing and grinding is done on the palm of the hand. The moist globule (pH 8.3) is placed in the alveolo-gingival sulcus (space between the cheek and gum). Average weight of this mixture for single use is about 0.2 gms. Average time of sucking for a single globule is about 10-15 minutes. Range of addiction is varied (3-30 times per day). Use of Khaini is rampant among the poorer section of the society in North, West and Central India. Women also take Khaini. Recent surveys in urban areas of India have indicated that Khaini chewing is gaining favor among teen-agers and young adults of affluent societies as well.

Mainpuri Tobacco

This preparation originated in the Mainpur district of UP. It was first prepared in 1906 with active patronization of the then Maharaja of Mainpuri. It contains good quality rich flavoured tobacco with slaked lime, finely cut areca nut, camphor and clove. This is consumed mostly alone and less commonly in dressing of Paan.

Paan Masalla

It is believed that the concept of Paan Masalla came from Mainpuri Tobacco. Pan Masalla contains finely cut/ ground areca nut, slaked lime, catechu and various other condiments for flavour and taste. It usually contains tobacco in powdered form though tobacco-free Paan Masallas are also sold. In recent years, the use of Paan Masalla has grown so fast during the past decade that it is impossible to give any correct data on quantitative use. Paan Masalla is also exported to various countries of Middle East, Western Asia, Southeast Asia, Africa, UK, USA and Japan. It was estimated in 1990s that the Indian market of Paan Masalla is worth Rs 2,000 million (116 million US dollars).

Processed Tobacco for chewing

Tobacco is processed in various ways and mixed with various additives to suite the taste of users. The products are commercially available in various names. Generically, they are called Zarda (North, Central, East and North East India), Kiwam (Central & Western India), Kaddipudi, Hogesoppu (Karnataka), Kadapan (Orissa & Orissa-Bengal border area), Pattiwallah (UP, Bihar) etc. They are sometimes chewed raw but often used as dressing of Paan.

Zarda

To prepare Zarda, tobacco leaves are finely cut and boiled with slaked lime and different spices. The residue is dried, powdered and mixed with various coloring and flavouring agents.

Kiwam

Kiwam is prepared by boiling selected parts of tobacco leaves (without stalk, midrib and veins) The cut leaves are boiled in water with powdered spices like cardamom, aniseed and musk. Continuous stirring is necessary until a thick paste is obtained. This is then dried in air and granules/ pellets are made.

Gundi

Cured tobacco is fried. This is mixed with fried coriander seeds. Both are mixed and powdered. A resinous oil is mixed to add flavour and scent. Gundi is used in Western India. In Orissa, a little variant of Gundi is used. This is locally known as Kadapan.

Pattiwallah

This is sun-dried flaked tobacco that is usually used with Paan. Addicts in UP use it as a powder.

Mawa

It consists of finely cut areca nut with tobacco and slaked lime. It is very popular in Gujarat. It is often mixed with various condiments, grated coconut, dried fruits and other sweetening agents like sugar/ molasses to give it a sweet taste (Meetha Mawa)

Snus

Swedish snuff is called Snus. This is also marketed in India with a brand name of "Click". The snus is available in tea-bag like pouches and are kept in Gingivo-Buccal sulcus (space between check and gum) and sucked slowly.

Naswar

This is a mixture of Tobacco, lime and indigo. It is prepared by adding lime to measured quantity of water to which sun-dried powdered tobacco is added. After adding indigo as a coloring agent, the whole mixture is pounded for a long time with heavy wooden mallet. Naswar is used in Afganistan, Pakistan, Iran and in a few Soviet Republics.

Nicotinated Chewing Gum

This is a new introduction in the market. The chewing gums contain measured quantity of Nicotine. They are used to de-addict the addicted people. They are usually of two types – gutka flavoured to de-addict tobacco chewers and mint flavoured to de-addict the smokers.

Mishri

Mishri is prepared by baking tobacco leaves on a hot metal plate. The product becomes completely black. It is then powdered and put into packets.

Gul

Gul is basically pyrolysed tobacco that is used as a dentifrice in Eastern India (East and Northeast). This is practiced even by school children. The addiction comes unknowingly.

Bajjar

This is dried tobacco leaf finely powdered to the form of snuff. Mostly women apply it, over teeth and gum. This practice is in vogue in Gujarat.

Lal Dantmajan

This is also used as a dentifrice. It is a red-colored powder and contains tobacco (declared or undeclared). Its use is limited to Northeastern states, northern Bihar and UP and in parts of Maharashtra.

Gudakhu (Gurakhu)

Gudakhu is a paste made of finely ground tobacco and molasses. It is applied with fingers over teeth and gums. The use is more frequent in eastern India.

Creamy snuff

Common toothpastes are mixed with fine tobacco powder to make this creamy snuff. This is then used just like toothpaste.

Tuibur and Hidakphu

Both are prepared by passing tobacco smoke through water. Its local name is “Tuibur” in Mizoram . In Manipur, it is known as “Hidakphu”. Frequency of use of these substances among tobacco addicts at Mizoram and Manipur is around 6 – 7%. Most of the addicts take it more than 5 times a day.

Epilogue

Tobacco is used in very many forms throughout the world. It is not possible to mention all the methods of tobacco use in this short popular article. Use of tobacco started in different regions and societies for various purposes. In many societies, tobacco was considered a medicinal plant. It is perhaps interesting to note that tobacco was never considered to be a medicinal plant in *Ayurveda* though its name was mentioned in different social and historical treatises.

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References

I had consulted so many references, that it would be inappropriate to include them all in the present article that is meant for popular reading. However, for interested readers, I site the following books for consultation and further reading:

1. Control of Tobacco-related Cancers and other diseases. Proc Int'l Symposium at TIFR, Mumbai. January 15-19, 1990. Eds: Prakash C Gupta, James E Hammer III and P R Murti. Oxford University Press. [1992].
2. Report on Tobacco Control in India. Joint Publication by Ministry of Health and Family Welfare, Govt of India, Centers for Disease Control and Prevention, USA and the WHO. Eds: K Srinath Reddy and Prakash C Gupta. [2004]
3. IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans: Volume 38: Tobacco Smoking. IARC, Lyon, France [1986]
4. Research in Tobacco in India (including Betel Quid and Areca Nut). Ed: Cecily S Ray, Prakash C Gupta and Jay de Beyer. HNP, World Bank [2003]