

Health Hazards of Gutkha: An Update Article.

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ABSTRACT

Gutka or Gutkha is a partial grinded mixture of areca nut (beetle nut or supari), smokeless tobacco, catechu, paraffin and sweet smelling chemicals in limewater. It is popular and mainly manufactured in India and exported to some other countries like Bangladesh, Pakistan, Nepal etc and is used as a mild stimulant and highly addictive. It is consumed like smokeless or chewing tobacco and causes several health hazards. It is a leading cause of oral cancer born deaths in India. It is continuously selling in some parts of India by shopkeepers without any care of imposing a ban for a high profit on the other hand clever manufacturers provide Gutka stuff.

Keywords: Gutkha, Gutka, Tobacco.

INTRODUCTION

Gutka or Gutkha is a preparation of crushed Areca nut (also called betel nut), tobacco, catechu, paraffin, slaked lime and sweet or savory flavourings. A mild stimulant, it is sold across India in small, individual-sized packets that cost between 2 and 10 rupees per packet. Gutka is consumed by placing a pinch of it between the gum and cheek and gently sucking and chewing. Tobacco use in children and adolescents is reaching pandemic levels. The World Bank has reported that nearly 82,000–99,000 children and adolescents all over the world begin smoking every day.^[1] If current smoking trends continue, tobacco will kill nearly 250 million of today's children.^[2] According to Global Adult Tobacco Survey (GATS) India, the estimated number of tobacco users in India is around 275 million, of which around 26% are users of smokeless tobacco, while 5.8 per cent are cigarette smokers and 9.2 per cent smoke bidi.^[3] This reveals that more Indians (almost 75 percent) consume smokeless forms of tobacco in the form of paan, gutkha, pan masala, khaini and mawa. India is the third largest producer and consumer of tobacco in the world. Tobacco is used in a variety of ways in India; its use has unfortunately been well recognized among the adolescents. Gradually, the use of chewing tobacco is reaching dangerous endemic levels in the country with eight per cent of adults in the country chewing gutka.^[5]

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Gutkha is a highly addictive and toxic product, due to the amount of nicotine and tobacco content in it. Areca nut, just like tobacco, is a psycho stimulant and an addictive substance. Areca nut is, in fact,

estimated to be the fourth most common addictive substance (after tobacco, alcohol, and caffeine). The World Health Organisation's International Agency for Research on Cancer includes Areca nut as a Group-I carcinogen. Even without adding tobacco, Areca nut chewing is known to cause cancers of the larynx, stomach, lung, and cervix in humans. Besides Areca nut, gutkha contains several toxic and harmful chemicals such as N-nitrosamines eugenol, sodium carbonate, ammonia, ammonium carbonate etc. Apart from these, they contain high levels of heavy metals such as lead, arsenic that cause cancer, organ failure, and various nervous diseases. The Indian Institute of Environmental Medicine estimates that on an average, tobacco contains at least 19 known carcinogens and at least 30 metallic compounds comprising heavy metals.^[4,6]

ILL EFFECTS OF CHEWING GUTKHA

Excessive use of gutkha can eventually lead to loss of appetite, promote unusual sleep patterns, and loss of concentration along with other tobacco-related problems. A gutkha user can easily be identified by prominently stained teeth ranging from dirty yellowish-orange to reddish-black.

Areca nut, has been classified as a known human carcinogen by the International Agency for Research on Cancer.^[10] Betel nut has potentially carcinogenic constituents. Long-term use can cause oral submucous fibrosis, a condition in which mouth opening is difficult. It can also lead to pre-cancerous lesions in the mouth and a cancer called squamous cell carcinoma. Regular use also may increase risk of other mouth cancers, as well as cancers of the liver, cervix, stomach, prostate and lung. The development of various cancers in gutkha chewer due to genotoxic effect of chemical present in gutkha as N-nitrosamines eugenol, sodium carbonate, ammonia, ammonium carbonate.^[7-9]

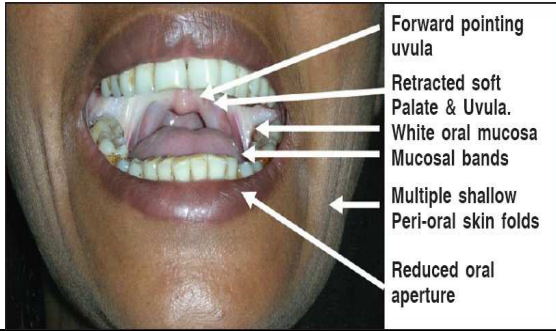


Figure 1: Showing the effect of gutkha on the mouth (gutkha mouth)

Some people report breathing problems after using gutkha while others experience wheezing and an increased breathing rate and allergic reactions.^[10] Large doses of gutkha can cause cocaine like state of intoxication, which is characterized by amnesia, dilated pupils, psychosis, confusion, impaired judgment and psychosis. After long-term use, many gutkha users become addicted to it. The withdrawal symptoms include amnesia, dry mouth, insomnia, cognitive problems and fatigue. Gutkha can also adversely affect cardiovascular system. According to NIH, betel nut can cause abrupt changes in blood pressure, palpitation, arrhythmias, heart attacks and stroke. Gutkha also causes gastrointestinal side effects in the form of acid reflux disease, nausea, vomiting, diarrhoea, toxicity to liver and kidney.

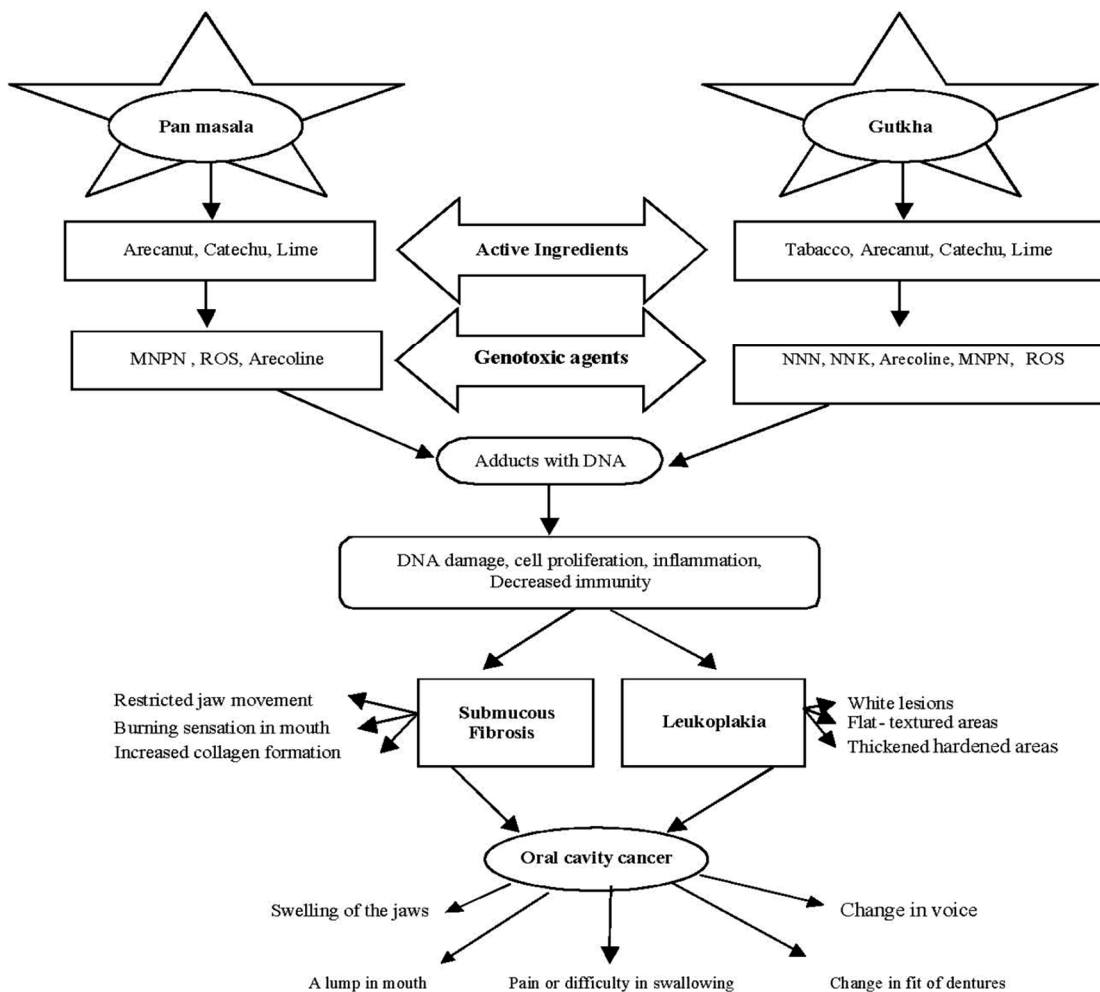


Chart 1: Showing the genotoxic effect of gutkha and pan masala

It can also cause fluctuation in blood sugar levels in diabetic patients. Routine gutkha users develop a pale complexion. Gutkha is quite unsafe for children under 18 years and pregnant ladies. Its consumption leads to low birth, preterm labour and stillbirths. International studies in Australia had

concluded that betel nut chewing is a risk factor for poor pregnancy outcome. Gutka consumption also results in low sperm count and infertility in males. Therefore, extensive Gutka consumption can affect conception and outcome of pregnancy as this harmful product destroys the immune system.^[11-15]

QUITTING GUTKHA [16-19]

The treatment of gutkha toxicity is only by quitting it. The gutkha contains more nicotine than bidis and cigarettes so the quitting is quite difficult in the people who become addicted to it. Every year, as many as 60 to 70 percent of tobacco users want to quit, only about 20 percent try, and only two to three percent succeeds by themselves. This is because nicotine is so addictive. That is why using medicine is additional.

The quitting process involves two steps:

A. Preparation before quitting: proper counseling is needed in these people before the start of quitting. In counseling, they should be told about social economic and health issues of gutkha. Their mind should be prepared for it. The support of their family member should be taken into consideration.

B. Actual quitting; the use of nicotine, bupropion and Snuff substitutes (herbal chew) are very helpful especially to prevent withdrawal symptoms. Nicotine Replacement Therapy (NRT) decreases the withdrawal symptoms and improves chances of stopping tobacco usage. NRT is in the form of a product containing nicotine, which replaces nicotine received from tobacco. There are no serious side effects and dependency problems are very rare. NRT is not recommended for those who smoke less than 10 cigarettes or chew less than 10 packets a day. Heavy tobacco users (more than 25 a day) respond better to a higher dose of NRT.

The Gums

The nicotine chewing gums are similar to other chewing gum. It is used for at least 4 weeks, then as required. The gums come in 2 mg, and 4 mg. One may use 10 -15 pieces each day depending on craving. It is easy to use, discreet and easy to carry. Gums can be used for both smokers and chewers. There is a certain method to use the gums.

How nicotine Gum is used-

1. Not to smoke or chew while using the gum.
2. One piece of gum should be used at a time and use on a fixed schedule (1 piece/hour).
3. Gum should be chewed slowly until a peppery taste or tingling of the gums occurs. Then, stop chewing and park the gum in between the gums and cheek until tingling stops. Start chewing gum again and repeat the parking and chewing process for about 30 minutes.
4. Parking the gum is necessary for the nicotine to absorb through the buccal mucosa.
5. Not to eat or drink anything 15 minutes prior to and during the use of the gum.

Side effects of nicotine gums

- Sore jaw, sore throat, mouth irritation, heartburn, nausea, rapid heartbeat etc.

The Patches

The nicotine patches release a constant amount of nicotine in the body; the nicotine dissolves right through the skin and enters the body. They are similar to adhesive bandages and are available in different shapes and sizes. Patches should be worn constantly and replaced every morning used for 8-12 weeks (at least 4).

Side effects of nicotine patches

- More Common: Skin irritation, rash at the site of the patch (person should consult a practitioner if he has redness after four days or if he has skin swelling) and difficulty in sleep.
- Less Common: Nausea, nervousness, diarrhoea, rapid heartbeat, aching muscles and joints.

Snuff substitutes (herbal chew):

These products do not contain nicotine nor tobacco and they can be purchased in stores or over the internet. Various products are available (Smokey Mountain™, Golden Eagle™, Oregon Mint Snuff™). No data is available on their efficacy for increasing quit rates, however, some patients may benefit from the use of these products to help them with the behavioural aspects of ST use.

Bupropion SR

Bupropion is a non-nicotine treatment licensed for use in India. It can be used as an aid to tobacco cessation and is more effective when combined with behavioural strategies. It reduces the cravings and withdrawal symptoms associated with stopping smoking by acting on pathways in the brain that are believed to play a key role in nicotine addiction. It is available only on prescription and is safe and effective when used correctly. Bupropion SR may be used either in combination with NRT products or as mono-therapy. Start bupropion SR 150 mg by mouth once per day for three days and increase to 150 mg by mouth twice per day thereafter. Gutkha can be stopped one week after starting bupropion SR therapy. It can be continued as bupropion SR for three months or indefinitely if necessary.

Behavioural Therapy: As with cigarette smokers, it is important to encourage behavioural counseling in addition to pharmacologic therapy. This typically includes identifying use triggers and modifying behaviours that increase the risk for relapse.

CONCLUSION

Socio-economic disparities, cultural differences in gutkha use and marketing practices have contributed to gutkha-related morbidity and mortality. By telling communities its ill effect of education or media can prevent the incidence of

new gutkha users. Also better counseling or its quitting and treatment of its complication can reduce burden of gutkha related disease in community and economic health burden on the country.

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