

## REVIEW ARTICLE

# Need for Emphasis of Existing Knowledge of Herbal Cigarettes - A Review Article

Vinit Patil<sup>1</sup>, Rajendra Baad<sup>2</sup>, Nupura Vibhute<sup>3</sup>, Uzma Belgaumi<sup>4</sup>, Vidya Kadashetti<sup>5</sup>, Sushma Bommanavar<sup>6</sup>

## ABSTRACT

In recent times, due to heavy levying of taxes on smoking form of tobacco herbal cigarettes have gained increased popularity as a non-smoking aid in the Indian population. Fewer studies have been conducted to know its efficacy as a tool for smoking cessation. This article will shed more light on the need of emphases of existing scientific evidence of health effects of herbal cigarettes.

**Keywords:** Herbal cigarette, Smoking aids, Smoking cessation.

**How to cite this article:** Patil V, Baad R, Vibhute N, Belgaumi U, Kadashetti V, Bommanavar S. Need for Emphasis of Existing Knowledge of Herbal Cigarettes - A Review Article. *Int J Tob Oral Health* 2017;3(1):15-17.

**Source of support:** Nil

**Conflicts of interest:** None

## INTRODUCTION

Tobacco cultivation dates backward to 6000 BC. The carcinogenic properties of tobacco were documented in the 1800s, but it was in the 20<sup>th</sup> century, the role of tobacco and smoke exposure in the growing pandemic of various malignancies was fully appreciated.<sup>[1]</sup>

Tobacco smoking is one of the causes of the incidence and mortality of cancer in the world.<sup>[2]</sup> It is responsible for about 25% of all cancers in men, 4% of all cancers in women and about 16% of all cancers in both sexes in most developed countries and 10% in less developed countries.<sup>[3]</sup> Despite thousands of studies showing that tobacco in all its forms kills its users, and smoking cigarettes kills non-users, people continue to smoke, and deaths from tobacco use continue to increase.<sup>[4]</sup>

Recently, various smoking cessation initiatives have been carried out, and programs like Nicotine

Replacement Therapy have been promoted on a larger scale on various platforms throughout the globe. Non-smoking aids, such as nicotine patches, nicotine gum, herbal cigarette, and e-cigarette, are used to help smoker stop smoking.

Herbal cigarette contains herbs, instead of tobacco leaves, and as the raw material. Research suggests that lot of smokers use an herbal cigarette as a non-smoking aid in Korea. The sales volume of electronic cigarette and herbal cigarette according to G-market of on-line distribution industry in Korea has increased each 1160% and 118% in 2014, year-on-year. Furthermore, sales volume of non-smoking aids is expected on the increase because of raise of cigarette price.<sup>[5]</sup>

In the era of globalization, exchange of knowledge and commodities has been very accessible. The herbal cigarettes are available in Indian markets, which are considered to be an aid to help quit smoking. However, there is a lack of knowledge, and also there is a lack of evidence regarding the safety of its use. This article emphasizes on the need for more research in Indian peninsula related to the field of herbal cigarettes leading to inputs in public health and clinical approaches.

## NEED FOR EMPHASIS

Asian herbs have been used for medicinal purposes for centuries. At the beginning of 2000, various Asian countries began producing cigarettes that combine these herbs with tobacco. (The herbs used in Western herbal cigarettes, in contrast, are using ingredients such as hazel and rose petals that are neither considered medicinal nor are mixed with tobacco.) Asian herbal-tobacco cigarettes may be more appealing to the Asian smoking population with a belief of deriving health benefits from smoking these products. Transnational tobacco companies (TTCs) and a 2001 Institute of Medicine report have stated to encourage the creation of potentially reduced exposure products, which may deliver fewer toxins to smoking population who are unable or unwilling to quit. The strategy of product modification as a form of tobacco control has been criticized by some public health groups and researchers, however, because there is no evidence of a public health benefit at the population level and this strategy may discourage current smokers from quitting.<sup>[6-12]</sup>

<sup>1</sup>Post-graduate student, <sup>2</sup>Professor and Head, <sup>3,4</sup>Reader, <sup>5,6</sup>Lecturer

<sup>1-6</sup>Department of Oral Pathology and Microbiology, School of Dental Sciences, Krishna Institute of Medical Sciences Deemed University, Maharashtra, India

**Corresponding Author:** Dr. Vinit Patil, Post-Graduate Student, Department of Oral Pathology and Microbiology, School of Dental Sciences, Krishna Institute of Medical Sciences Deemed University, Karad, Maharashtra, India. E-mail: vinitp42@gmail.com

Asian herbal-tobacco cigarettes that claim to reduce the harms of smoking have been developed in China since the 1970s, and the TTCs have been tracking these products since the 1980s. In 2000, other Asian countries tried to develop similar products, which coincide with efforts by the TTCs to work with Asian tobacco companies in promoting their "harm reduction" strategy in Asia.<sup>[13]</sup>

In countries, such as China, Korea, Taiwan, and Thailand companies manufacturing herbal cigarettes have used the following ingredients:

1% *Apocynum venetum*, *Artemisia vulgaris*, Herbaceous peony, Thorowax, Curculigo rhizome, Longspur Epimedium, *Tropaeolum peregrinum*, Shennong extracting liquid, 50% Flos Daturae, Selenium-rich tobacco leaf, Loess, *Eriobotrya japonica*, Pericarpium Citri Reticulatae, *Andrographis paniculata*, Puleye herbal extract.

These companies have also enlisted various health claims such as:

- Cigarette substitute
- Reduce carcinogens, mutagenicity, acute toxicity, nicotine content, and phlegm production
- Raises immunity
- Protect kidney
- Fever relief
- Sedation.<sup>[14-40]</sup>

A study was conducted by Korean researcher, Kim SW to examine the safety of herbal cigarette by measuring its carbon monoxide exposure as a result of the consumption of cigarettes. The results mentioned that smoking herbal cigarettes led to a similar degree of exposure to carbon monoxide as smoking ordinary tobacco cigarettes, and may even exceed the latter. Thus, the product was shown to be a potential hazard to health.<sup>[41]</sup>

Bak *et al.* analyzed some of the toxic components in the mainstream smoke of herbal cigarettes, performed a mutagenicity test on smoke condensates for safety assessment, and compared the results with the corresponding values of a general cigarette with the same tar content. The results of this study showed that the mainstream smoke of herbal cigarette contains some toxic components, the smoke condensates of herbal cigarettes are mutagenic similar to general cigarette because of combustion products.<sup>[42]</sup>

According to the theory of Chinese traditional medicine and design of cigarette, Chinese herbal medicine extraction was put into cigarettes, and then the smoke of cigarette putting in Chinese herbal medicine was studied. This study was carried out to study the reduction of harmful components in cigarette smoke. Results revealed that marked reduction is content of tar, nicotine, aromatic hydrocarbons, polycyclic aromatic

hydrocarbon, and tobacco-specific N-nitrosamine, but the content of carbon monoxide was changed slightly.<sup>[43]</sup>

Success rates regarding long-term smoking abstinence are disappointing, with <50% of smokers quitting permanently.<sup>[19,20]</sup>

## CONCLUSION

There is a lack of knowledge of the available herbal cigarettes in Indian markets. The government regulatory bodies should monitor the proficiency of the herbal cigarettes. Thus, there is an urgent need to carry extensive research about the herbal cigarette to know its effects on the human body and avoid the further damage. For smoking cessation, more encouragement and promotion of proven therapies such as Nicotine Replacement Therapy should be done.

## REFERENCES

1. Hymowitz N. Smoking and cancer: A review of public health and clinical implications. *J Natl Med Assoc* 2011;103:695-700.
2. Prevention for Disease CC. Annual smoking-attributable mortality, years of potential life lost, and economic costs-united States, 1995-1999. *Morb Mortal Wkly Rep* 2002;51:300-3.
3. Sasco AJ, Secretan MB, Straif K. Tobacco smoking and cancer: A brief review of recent epidemiological evidence. *Lung Cancer (Amsterdam: Netherlands)* 2004;45 Suppl 2:S3-9.
4. Available from: <http://www.who.int/tobacco/en/atlas2.pdf>. [Last accessed on 2016 October 24].
5. Lee ES, Seo HG. The factors associated with successful smoking cessation in Korea. *J Korean Acad Fam Med* 2007;28:39-44.
6. Nestler G. Traditional Chinese medicine. *Med Clin North Am* 2002;86:63-73.
7. Body and Soul Health Food Shop. Product Information on Honeyrose 2004. Available from: <http://www.worldwideshoppingmall.co.uk/body-soul/honeyrose-herbal-cigarettespecial-mix.asp>. [Last accessed on 2014 October 23].
8. US Tobacco Journal. Marketing Executive Offering Smoker an Alternative Cigarette. Bates No. 950051849. Available from: <http://www.legacy.library.ucsf.edu/tid/rjj74f00>. [Last accessed on 2016 Aug 10].
9. Stratton P, Wallace R, Bondurant S, editors. Clearing the Smoke. Committee to Assess the Science Base for Tobacco Harm Reduction. Washington DC: National Academy Press; 2001.
10. Robins R, editor. The Seduction of Harm Reduction: Proceedings from the September 2004 Summit. Sacramento, CA: Department of Health Services; 2005.
11. Joseph AM, Hennrikus D, Thoele MJ, Krueger R, Hatsukami D. Community tobacco control leaders' perceptions of harm reduction. *Tob Control* 2004;13:108-13.
12. Warner KE, Martin EG. The US tobacco control community's view of the future of tobacco harm reduction. *Tob Control* 2003;12:383-90.
13. Tong EK, Glantz SA. ARTIST (Asian regional tobacco industry scientist team): Philip Morris' attempt to exert a scientific and regulatory agenda on Asia. *Tob Control* 2004;13:ii118-24.
14. Anti-asthma Cigarette. 2002. Available from: <http://www>.

- tobacco.icxo.com/htmlnews/2002/12/16/149200.html. [Last accessed on 2015 Dec 20].
15. Xisoming L. Herbal Cigarettes in China: Not Quite Healthy, But. 11 Nov 1988. Bates No. 325304611-325304612. Available from: <http://bat.library.ucsf.edu/tid/dpj82a99>. [Last accessed on 2016 Jan 10].
  16. Gengtao C. China Produces A "Medicinal" Cigarette. Bates No.950059114/9115. <http://www.legacy.library.ucsf.edu/tid/kud74f00>. [Last accessed on 2016 Jan 13].
  17. Tobacco Reporter. New Cigarettes Claim to have Good Effect on health. Oct 1984. Bates No. 2501665802. <http://www.legacy.library.ucsf.edu/tid/ksm49e00>. [Last accessed on 2014 Sep 10].
  18. Reuters SR. South China Morning Post. Cigarettes 'Promote Health'. Bates No. 2021573042A. <http://www.legacy.library.ucsf.edu/tid/lki23e00>. [Last accessed on 1984 Aug 29].
  19. Area of Philip Morris Central Files. Yomiuri Shimbun. China Develops 'Safe Cigarette' Reputed to have Medicinal Effect Versus Heart Disease and High Blood Pressure. Bates No. 202225468/5471. Available from: <http://www.legacy.library.ucsf.edu/tid/okt58e00>. [Last accessed on 2015 Jan 27 10].
  20. Brown and Williamson Collection. Be Healthy, Smoke Chinese: Treatment of Cigarette Dependency. Bates No. 690154570. Available from: <http://www.legacy.library.ucsf.edu/tid/vcp93f00>. [Last accessed on 1984 Aug 30].
  21. Qingzhou Cigarette Factory Develops Health Cigarettes. Etsong Tobacco Group News 2000. Available from: <http://www.tobaccochina.com/englishnew/content.aspx?id=2475>. [Last accessed on 2016 Jan 15].
  22. Guangming Daily. Company in Henan Develops Substitute for Cigarette 2003. Available from: <http://www.tobaccochina.com/englishnew/content.aspx?id=3371>. [Last accessed on 2016 Jan 20].
  23. Arwady M, Usa PM. Update: "Double Happiness," "Hongtashan" and Other Chinese Brands in the N, Y. Market. Bates No.2071630602/0605. <http://www.legacy.library.ucsf.edu/tid/jon37d00>. [Last accessed on 2016 Mar 14].
  24. Brawner J. An Evaluation of Jin Jian, a Chinese Medicinal Cigarette/316. Bates No. 650328758/8765. Available from: <http://www.legacy.library.ucsf.edu/tid/txl00f00>. [Last accessed on 2016 Mar 14].
  25. Tianjin Daily. Tianjin Cigarette Factory Develops High-Grade Health-Friendly Cigarette 2002. Available from: <http://www.tobaccochina.com/englishnew/content/asp?id=822>. [Last accessed on 2016 Jun 20].
  26. Zhang M. Meeting Report General Information. Bates No. 2076950347/0361. Available from: <http://www.legacy.library.ucsf.edu/tid/cqe85c00>. [Last accessed on 2016 Jun 20].
  27. Ming-Shen Z. The health promoting effects of Chinese herbs in cigarettes (Translation) 2004. Available from: <http://www.tobaccochina.com/tech/data/20041/c112110145.htm>. [[Last accessed on 2016 Jan 30]].
  28. "Puleye" Preparation used as Additive in Cigarette Making. China Business 2001. Available from: <http://www.tobaccochina.com/englishnew/content.aspx?id=1958>. [Last accessed on 2016 Mar 15].
  29. Chinese Tobacco Manufacturer Develops New Medicinal Cigarette Product. Available from: <http://www.hnby.com.cn2004>; <http://www.tobaccochina.com/englishnew/content.aspx?id=13386>. [Last accessed on 2015 Dec 10].
  30. Wuyeshen's Secret of Harm Reduction (Translated) 2004. Available from: [http://www.tobaccochina.com/zt/jianhai/revolution\\_3/article4\\_1.htm](http://www.tobaccochina.com/zt/jianhai/revolution_3/article4_1.htm). [Last accessed on 2015 Dec 15].
  31. Henan Tiansheng Technology Development Co. LTD. (Company website for Yixing). Available from: <http://www.chinayixing.com/english.htm>. [Last accessed on 2015 Dec 15].
  32. Hong Z. World Tobacco. China employs medicinal herb to reduce 'tar' deliveries. Mar 1987. Bates No. 2023132370/2371. Available from: <http://www.legacy.library.ucsf.edu/tid/ysj48e00>. [Last accessed on 2016 Jan 15].
  33. Goldmount. (Goldmount Products: Blue and GT) Goldmount Co. 2002. Available from: <http://www.goldmount.co.kr/eng/>. [Last accessed on 2016 Apr 02].
  34. Damin-biotech Co. (Figo-Loess Cigarette) Damin-biotech Co. 2002. Available from: <http://www.damin-biotech.com/eng/>. [Last accessed on 2016 Jun 15].
  35. Walk RA. "Korean Health Authority Approves Anti-Smoking Cigarette". Bates No. 2067227350/2067227351. Available from: <http://www.legacy.library.ucsf.edu/tid/svu34a00>. [Last accessed on 2001 Jun 19].
  36. Cheong Y. The efficacy of herbal cigarettes (Kumyeoncho) and nicotine patches in smoking cessation. J Korean Acad Fam Med 2003;24:1003-9.
  37. Seung-hyun K, Joo-yun H. Small Firms Seek Out Smokers. JoongAng Daily; 2004.
  38. Goodheart J, Wu L. Herbal Cigarettes to Enter Taiwan Market in Summer. Bates No. 2064207466B/7467. Available from: <http://www.legacy.library.ucsf.edu/tid/lqy08c00>. [Last accessed on 2016 Apr 10].
  39. Bhatiasevi A. Higher Nicotine Warning Ignored/ Herbal-Flavoured Smokes get Nod. Bangkok Post; 2000.
  40. Pravattiyagul O. Puff it Better. Bangkok Post; 2000.
  41. Kim SW. Safety of a cigarette-type aid to stop smoking. J Korean Acad Fam Med 2000;21:858-65.
  42. Bak JH, Lee SM, Lim HB. Safety assessment of mainstream smoke of herbal cigarette. Toxicol Res 2015;31:41-8.
  43. Available from: [http://www.en.cnki.com.cn/Article\\_en/CJFDTOTAL-HNNY200810016.htm](http://www.en.cnki.com.cn/Article_en/CJFDTOTAL-HNNY200810016.htm). [Last accessed on 2016 Aug 10]