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**PAAN (*PIPER BETLE*) AT FOOD FEST – THE TROIKA OF OCCUPATIONAL  
ENVIRONMENTAL AND PUBLIC HEALTH HAZARD**

**S DWIVEDI S<sup>1</sup>, SHARMA A<sup>2\*</sup> AND BALUJA Z<sup>3</sup>**

**1:** Professor, Department of Medicine/Preventive Cardiology, Hamdard Institute of Medical Sciences & Research, Jamia Hamdard, New delhi-62

**2:** Assistant Professor, Department of Forensic Medicine, Hamdard Institute of Medical Sciences & Research, Jamia Hamdard, New delhi-62

**3:** Demonstrator, Department of Forensic Medicine, Hamdard Institute of Medical Sciences & Research, Jamia Hamdard, New delhi-62

**\*Corresponding Author: E Mail: [dr\\_amitsharma@hotmail.com](mailto:dr_amitsharma@hotmail.com)**

**ABSTRACT**

The sweet betel (meetha pan) is a commonly available product in south Asian countries which is consumed by peoples of all ages and genders because of a common notion that it is quite safe and innocuous. Though the reality is far away from this. Meetha pan is a cocktail of Sugar, Tobacco, Flavoring agents, Metals and many Unknown toxins having varying adverse effects. We present two cases of father son duo involved in betel quid selling at prominent state level festivals These cases highlights not only the individual health risk of the persons involved in such occupation but since they was selling this product in state level food fest, it also attracts many other persons to consume such harmful products. In a country like India, where the Govt is doing lot of things to ban tobacco products, examples like these can seriously hamper efforts of eradicating tobacco from the society.

**Keywords: Betel Quid Seller, Occupational Hazard, Cultural Hazard**

**INTRODUCTION**

It is not very unusual to see people chewing paan leaves (*Piper betle*) smeared with treated *Acacia catechu* and slaked lime in the form of betel quid in large social gatherings like marriage party, festivals or food fest. Chewing paan particularly without tobacco is a culturally accepted practice in South East Asian subcontinent

[1]. This is much more so in northern part of India. It has been recently reported that people involved in selling betel quid preparations are prone to premature diabetes and coronary artery disease [2]. We recently had the opportunity to visit the recent food fest held at Capital Delhi and another at Suraj Kund , Faridabad city wherein we observed people swarming on ‘ meetha paan ’ (sweet betel) shops managed by a middle aged male and his son respectively. Both showed distinct features of Betel Quid Seller’s Syndrome. Besides occupational health risks involved in betel quid selling the adverse public health and environmental hazards involved in selling such betel quid preparations prompted us to report this observation.

#### **Short Clinical Notes**

The owner of the paan shop a resident from Varanasi , was a 51-year- old male an avid paan and tobacco chewer himself who was obese ( Wt-86 Kg height 168 cm- BMI – 30.11) had waist of 125 cms, had mild hypertension BP-140/86mm/Hg. He had lost many teeth, remaining showed marked attrition, tongue was brown red and hands, finger and tips of the fingers were discolored, desquamated and brown red. He mentioned to us that he is most of the time sitting in shop for more than 10-12 hours a day. He uses several ingredients to make the betel quid sweet flavoring and tasty. This

much information was the maximum which we could gather inspecting and discussing with him at his busy shop. He was requested for further examination and check up which he said that he would get it done at his native place.

During the conversation he said that his elder son is also involved in similar trade and having a paan shop at ‘Suraj Kund Mela’ being held concurrently held at Faridabad. We located him next day at his shop and gathered that the 25-year-old young man who was in the betel quid profession for last 5-years was detected to have had sever hypertension BP-220/120 mm/Hg four years back. He was weighing 78 Kg and his height was 172 cm (BMI - 26.5). His waist was – 90cms. He too had discolored palms and tips of his right hand but not that marked as his father had. We advised him for a detail cardiovascular check up at our Institute Hospital to which he agreed after the mela (festival) is over.

We thus find that father and son both had distinct central obesity because of prolonged sitting at shop and suffered from metabolic syndrome with its attendant complications. Fortunately due to strict regulations and vigilant civil staff the usual scene of people spitting betel quid saliva at any nook and corner of the mela premises was not observed.

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**Public Health Considerations**

Various ingredients used in meetha paan contained food items like rose petal, fennel, berry- fruits, saffron, cardamom, mint soaked in sugar and unknown flavoring agents (**Table 1**). Depending upon the economic status of the individual the betel quid is sometimes wrapped in silver foil to make it more royal and attractive. Not unoften depending upon the user's choice tobacco is also put in addition to these ingredients. The finish product popularly known as ' meetha pan ' is thus a cocktail of sugar, flavoring agents, metals , many unknown toxins and tobacco which may have disastrous effects on the user including oral cancer [3-4].

The present narration highlights not only the individual health risk of the persons involved in such occupation but also the grim public health and environmental hazards associated with consumption and selling of betel quid mixed with sweet preparations. At a time when we as a nation are battling with the twin problems of bulge and diabetes, this is one problem which can be better avoided. In a country like India, where the Govt is doing lot of things to ban

tobacco products, examples of such kind can seriously hamper efforts of eradicating hazardous tobacco and betel quid from the society.

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Table 1: Common Ingredients in Betel Quid and their Harmful Effects

<i>Scientific name</i>	<b>Common name</b>	<b>Constituents</b>	<b>Health risks</b>
<i>Acacia catechu</i>	<b>Kattha, Khair, Babul</b>	<b>Tannins, catechins, Phlobotannins, flavonoids, gums, resins and pigments</b>	<b>Precursor for oral cancer</b>
<b>Calcium hydroxide</b>	<b>Slaked lime, Chuna burnt lime, caustic lime</b>	<b>Lime, water, calcium chloride ,sodium hydroxide</b>	<b>skin irritation, chemical burns, blindness, or lung damage</b>
<b>Psoraleacorylifolia Linn</b>	<b>Gulkand ,Gulqand</b>	<b>Rose petals, Sugar syrup, silver foil, muktapishti</b>	<b>High in sugar content and calories</b>
<b>Sugar treated foiled pepper mint</b>		<b>Metallic substance,sugar</b>	<b>High in sugar content and calories</b>
<i>Carissa carandas</i>	<b>Sugar treated karonda, Vakkay,karamardaka</b>	<b>Berry sized fruit</b>	<b>High in sugar content and calories</b>
<i>Foeniculum vulgare</i>	<b>Sugar treated fennel</b>	<b>Herb with yellow flower</b>	<b>High in sugar content and calories</b>
<b>Finely cut betel nut (<i>Areca catechu</i>) threads</b>	<b>Kattha, Khair, Babul</b>	<b>Tannins, catechins, Phlobotannins, flavonoids, gums, resins and pigments</b>	<b>Precursor for oral cancer</b>
<i>Crocus cartwrightianus</i>	<b>Wild Saffron</b>	<b>Herb, wild precursor of domestic saffron</b>	<b>Cardiotoxic</b>