A study of Lesions in oral cavity in smokeless Tobacco Consumers of Eastern U.P.

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Introduction

Use of tobacco products has emerged as the leading cause of premature disease and death in the world.

India is the second largest producer and third largest consumer of tobacco in the world, out of which U.P. is the largest consumer of smokeless tobacco. The various forms of smokeless tobacco available in Eastern U.P. are-

1. Chewing tobacco leaf- Khaini, Zarda, Betelquid with tobacco.
2. Areca nut mixtures for chewing like- Pan masala & Gutkha

Oral Carcinoma is 12th most common cancer in the world and it is 8th most frequent cancer in males and 30% of all Head and Neck Cancer.

Oral cavity comprises of lips, buccal Mucosa, alvelolar ridges, (Upper & Lower jaw) Retro molar trigone, hard palate & floor of the mouth along with anterior 2/3rd of tongue. Typical Indian oral cancer mostly occurs in buccal mucosa and gingiva.

Material and Method

Present study comprises of 500 oral cavity examinations of tobacco chewers of Barabanki district of U.P. and surrounding areas who attended the dental OPD of Hind Institute of Medical Sciences, Safedabad, Barabanki during last three years in this tobacco chewing belt of eastern U.P. All the patients were interrogated in detail for consuming tobacco. In Eastern U.P. area tobacco is consumed orally and placed between labial mucosa or in the area of buccal mucosa.

Observations

Lesions detected were-

Premalignant Lesions
1. Oral sub mucous fibrosis - Figure-1
2. Leucoplakia
3. Candidiasis

Malignant Lesions-
1. Ulcerative lesion - Figure-2
2. Indurated Patch
3. Cervical lymphnode enlargement
4. Carcinoma - Figure-3

Discussion

All these brands of Smokeless Tobacco contain lots of Toxic and Carcinogenic compounds like Polycyclicaromatic hydro carbons, Aldehydes, Nitrosamines and Radioactive substances. Thus in India tobacco use includes not only smoking but variety of Smokeless products are used and users are exposed to number of toxicants, carcinogen, co-carcinogens, and tumor promoters. Smokeless

Age Group distribution of tobacco consumer- (Table-1)

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Age group</th>
<th>No. of Cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>10 to 20 year</td>
<td>25</td>
<td>5%</td>
</tr>
<tr>
<td>2.</td>
<td>20 to 30 year</td>
<td>100</td>
<td>20%</td>
</tr>
<tr>
<td>3.</td>
<td>30 to 40 year</td>
<td>150</td>
<td>30%</td>
</tr>
<tr>
<td>4.</td>
<td>40 to 50 year</td>
<td>175</td>
<td>35%</td>
</tr>
<tr>
<td>5.</td>
<td>50 onwards</td>
<td>50</td>
<td>10%</td>
</tr>
</tbody>
</table>

Maximum consumption was during age group 30 years to 50 years.

Sex ratio- Male to Female ratio was 5:1

Type of consumption with duration - (Table-2)

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Type of Tobacco</th>
<th>No. of Cases</th>
<th>Percentage</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Khaini</td>
<td>150</td>
<td>30%</td>
<td>10 years</td>
</tr>
<tr>
<td>2.</td>
<td>Pan Masala</td>
<td>100</td>
<td>20%</td>
<td>5 years</td>
</tr>
<tr>
<td>3.</td>
<td>Zarda</td>
<td>100</td>
<td>20%</td>
<td>10 years</td>
</tr>
<tr>
<td>4.</td>
<td>Gutkha</td>
<td>125</td>
<td>25%</td>
<td>10 years</td>
</tr>
<tr>
<td>5.</td>
<td>Lal duntmanjan</td>
<td>25</td>
<td>5%</td>
<td>5 years</td>
</tr>
</tbody>
</table>

Maximum Consumption in the form of Khaini & Gutkha with largest duration of 10 years.
Tobacco use is associated with high incidence of oral cancer. Battery of Biomarkers with strong association with cancer risk need to be established in large population studies.

Commonest malignancy/ Lesions associated with type of Tobacco consumed were as in observation- Table No. 3

**Conclusion**

Use of smokeless tobacco in the eastern U.P. is very high specially among the males. Most of these users have multiple habits of tobacco chewing, smoking and drinking. Various smokeless tobacco products are easily available in this area and are freely used. Though various tobacco control Acts have been in introduced, their enforcement faces a huge challenge. Thus to achieve a high level success to control smokeless tobacco use great efforts are to be taken.

Strong will power is required to avoid tobacco consumption.

**REFERENCES**


**Sirtuins: The long living enzymes** - Sirtuins are a class of NAD+ dependent deacetylase enzymes that are pivotal in maintaining mitochondrial function which proves crucial in pathways that counter the decline in health, accompanying aging and prolong human lifespan. There are in all 7 mammalian sirtuins which carry immense scope for pharmacological targeting in order to alleviate global disease burden – SIRT1, SIRT2, SIRT3, SIRT4, SIRT5, SIRT6 AND SIRT7. Sirtuins, especially SIRT1 enhances fat metabolism and modulates mitochondrial respiration to optimize energy harvesting and exerting an antioxidant response. - Anti Aging Agenda