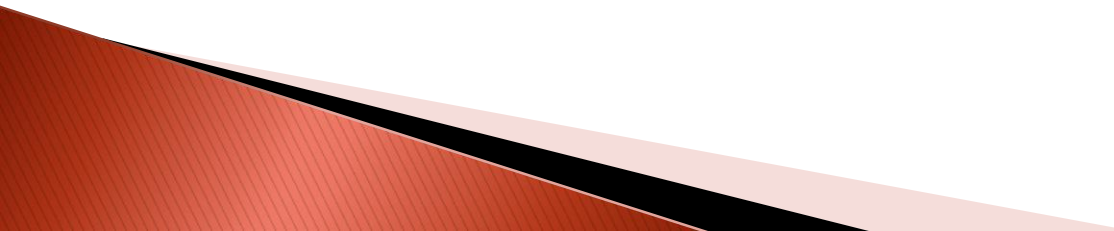


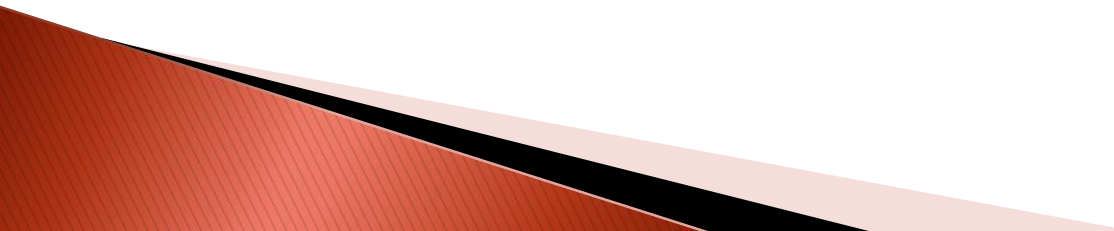
A PRELIMINARY STUDY ON SMOKELESS TOBACCO USERS AMONG 15 – 30 YEARS AGED RESIDENTS OF OTTERI AREA, NORTH CHENNAI, TAMIL NADU.

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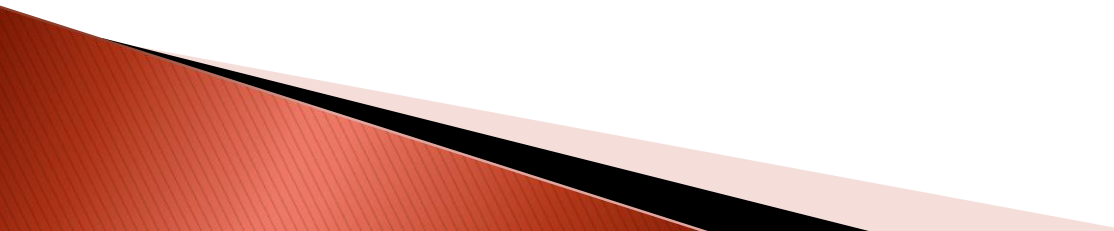
- ▶ Tobacco has been smoked, chewed and inhaled in various forms for more than 500 years. The use of smokeless tobacco has been remains a worldwide phenomenon (Greer *et al.*, 1983).
 - ▶ The practice of placing a small tobacco or chewing tobacco in the oral cavity and leaving it in place for extended period of time appears to be finding its way onto middle school, high school and college campuses as socially acceptable habits.
 - ▶ Many people are unaware of dangers of smokeless tobacco use and are under the impression that if there is no smoke, there is no danger.
 - ▶ However smokeless tobacco use is not a safe substitute for cigarettes. It can cause cancer and a number of noncancerous conditions, while leading to nicotine addiction and dependence.
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- ▶ Smokeless tobacco is classified as snuff and chewing tobacco.
 - ▶ Moist snuff is finely ground and sold in loose form or packets like tea bags. While chewing tobacco is coarse with many branded names. Both types are placed in oral cavity either between the lip and gum or on the inside of cheeks.
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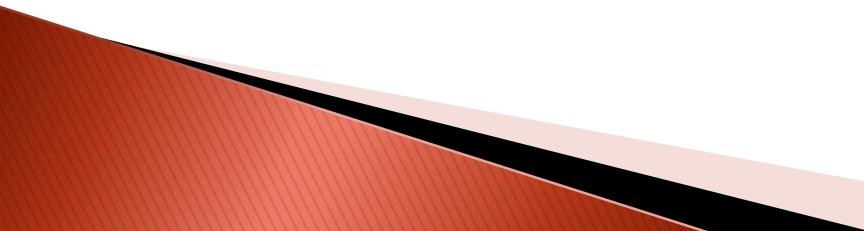
Forms of smokeless tobacco

- ▶ In India there are several smokeless tobacco preparations incorporating areca nut and slaked lime.
- ▶ In Kerala - as leaf tobacco (*hogesoppu*)
- ▶ Karnataka - *Kaddipudi* are cheap 'powdered sticks' of raw tobacco stalks and petioles
- ▶ Gujarat, Orissa and West Bengal- *Gundi*, also called *kadapan*.
- ▶ North India - *Kiwam* or *qiwam*- is a thick paste of boiled tobacco mixed with powdered saffron, cardamom, aniseed and musk.
- ▶ *Zarda* - commercial mixture of tobacco, lime and spices.
- ▶ Maharashtra and N. India - *Pattiwala* is sun-dried, flaked tobacco with or without lime, is used.
- ▶ Uttar Pradesh - *Manipuri* tobacco, containing finely cut areca nut, camphor and cloves is used.
- ▶ Gujarat - *Mawa*, popular among teenagers, contains thin shavings of areca nut with some sun-dried tobacco and slaked lime.
- ▶ *Khaini* - placed in the mandibular or labial groove and sucked slowly for 10–15 min, occasionally overnight.



- ▶ Such Information is not available in the teenagers/adolescents/ lowers age groups. Literature regarding smokeless tobacco is far less prevalent than for smoked tobacco such as cigarettes in the North Chennai area.
 - ▶ In the present study an attempt has been made to record, habits, types of tobacco used and correlate frequency of occurrence of oral tissue changes in individuals of 15 – 30 age group using smokeless tobacco.
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MATERIALS AND METHODS

- ▶ A survey (Questionnaire) was used to collect information about students' smokeless tobacco use, the impact of a statewide smoking ban, and students' current knowledge about smokeless tobacco.
 - ▶ Prior to completing the survey, instructions along with information about the study and consent were distributed to all participants. Participants signed and turned in the informed consent independent of the survey to ensure confidentiality.
 - ▶ A total of 200 individuals, (of which 175 male smokeless tobacco users and 25 female with tobacco habits) is selected for the current study. A detailed questioner to obtain the history and oral examination to note the dental, mucosal and gingival changes will be examined.
 - ▶ Adverse effects associated with smokeless tobacco, on users of smokeless tobacco was examined and explained to the subjects to quit in the present study.
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RESULTS AND DISCUSSION

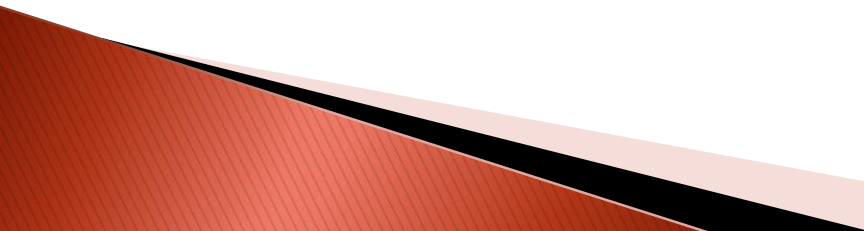
- ▶ The present investigation revealed that 87.5% smokeless tobacco users were male and 12.5% were females.
 - ▶ This study also showed that among the smokeless tobacco users 80% (72.5% male and 7.5% female) had never undergone full mouth examination, whereas among control group 60.2 % were also never been for full mouth examination.
 - ▶ Those who undergone full mouth examination six months back were 5.5% (male), 3.5% (female).
 - ▶ 3% of male 1% female had undergone full mouth examination one year back and only 6.5% of male had undergone full mouth examination before two year back (Table 1, Fig 1).
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Fig -1. Statistical analysis of male and female group versus Full mouth examination of smokeless tobacco user

| Gender | Full mouth examination | | | | Total |
|---------------------|------------------------|------------|-------------|-------------|--------------|
| | Never | Six month | 1 year back | 2 year back | |
| Male | 145 72.5% | 11 5.5% | 6 3% | 13 6.5 | 175 87.5% |
| Female | 15 7.5% | 7 3.5% | 3 1.5% | 0 0 | 25 12.5% |
| Total % of Total | 160 87.5% | 18 9% | 9 4.5% | 13 6.5% | 200 100% |

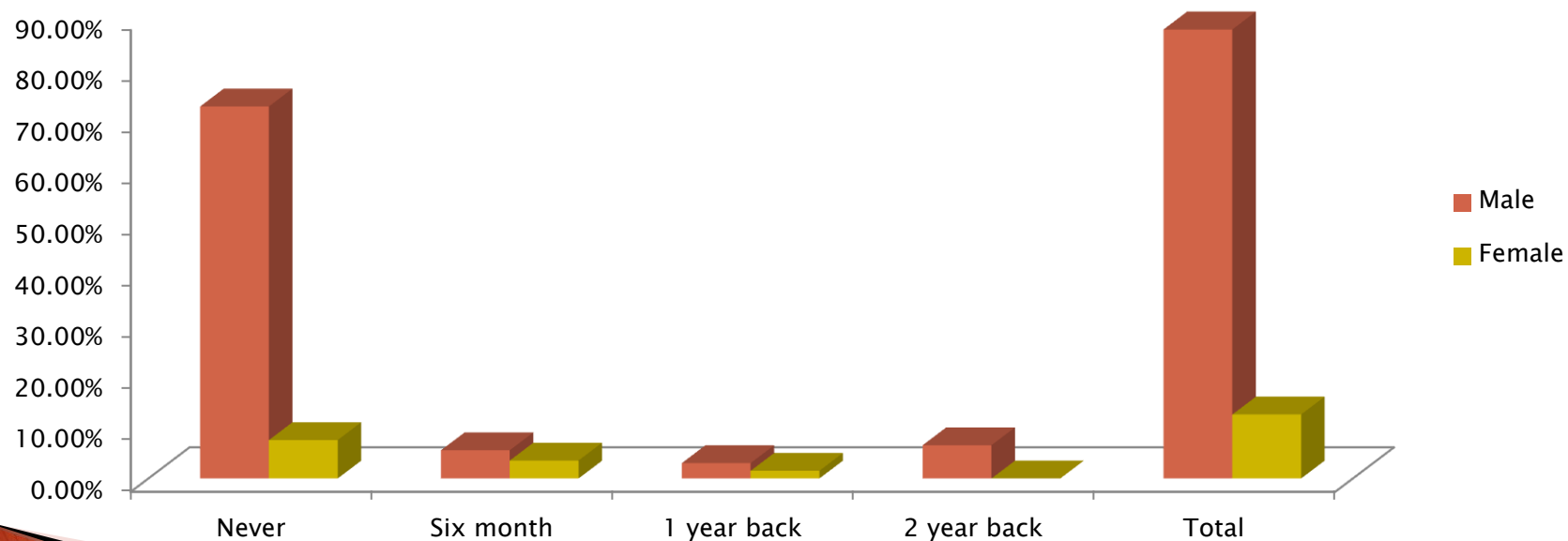


Fig - 2. Statistical analysis of male and female group versus age at which time smokeless tobacco is used among smokeless tobacco users

| Gender | First time Use of smokeless tobacco | | | | Total |
|---------------------|-------------------------------------|---------------|---------------|---------------|--------------|
| | <15years | 15 – 20 years | 20 – 25 years | 25 – 30 years | |
| Male | 20 10% | 128 64% | 13 6.5% | 14 7% | 175 87.5% |
| Female | 0 0% | 4 2% | 14 7% | 7 3.5% | 25 12.5% |
| Total % of Total | 60 10% | 132 66% | 26 13% | 24 12% | 200 100% |

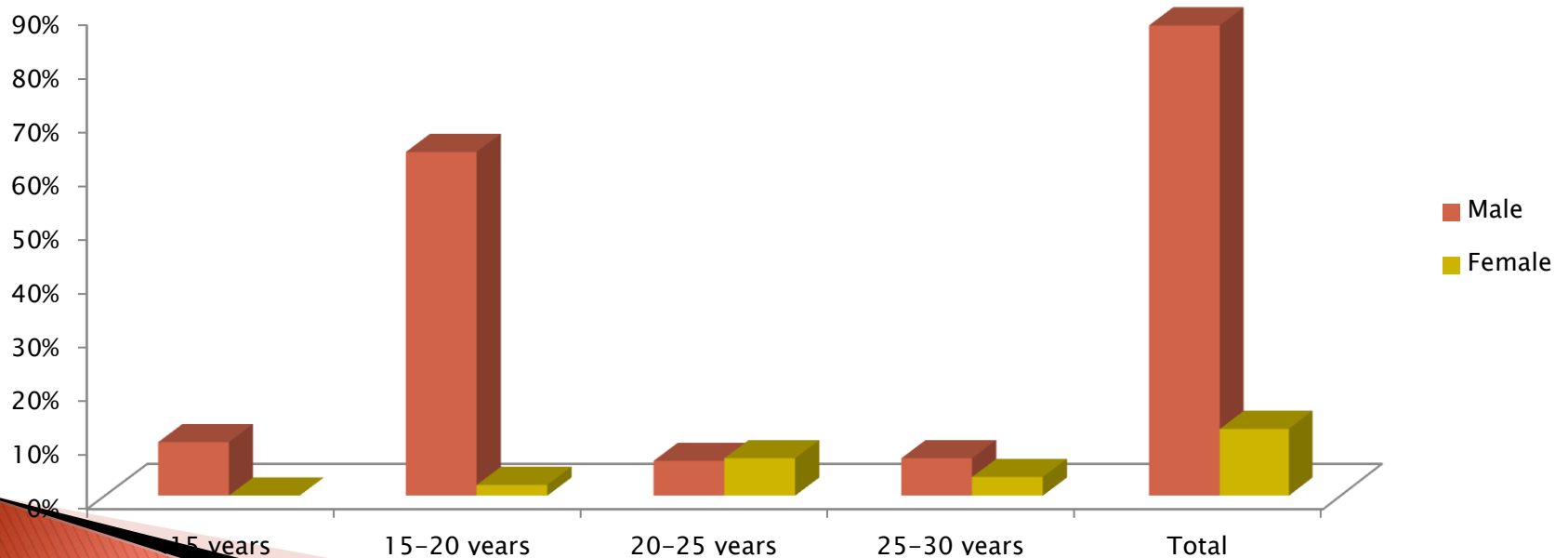


Fig 3: Statistical analysis of male and female group versus frequency of chewing smokeless tobacco among smokeless tobacco users

| | Frequency of chewing smokeless tobacco | | | | Total |
|------------|--|-----------|------------|----------------------|--------------|
| | once | Twice | Five times | More than five times | |
| Male | 27 13.5% | 18 9% | 52 26% | 78 39% | 175 87.5% |
| Female | 3 1.5% | 7 3.5% | 5 2.5% | 10 5% | 25 12.5% |
| Total | 60 | 130 | 26 | 24 | 200 |
| % of Total | 10% | 65% | 13% | 12% | 100% |

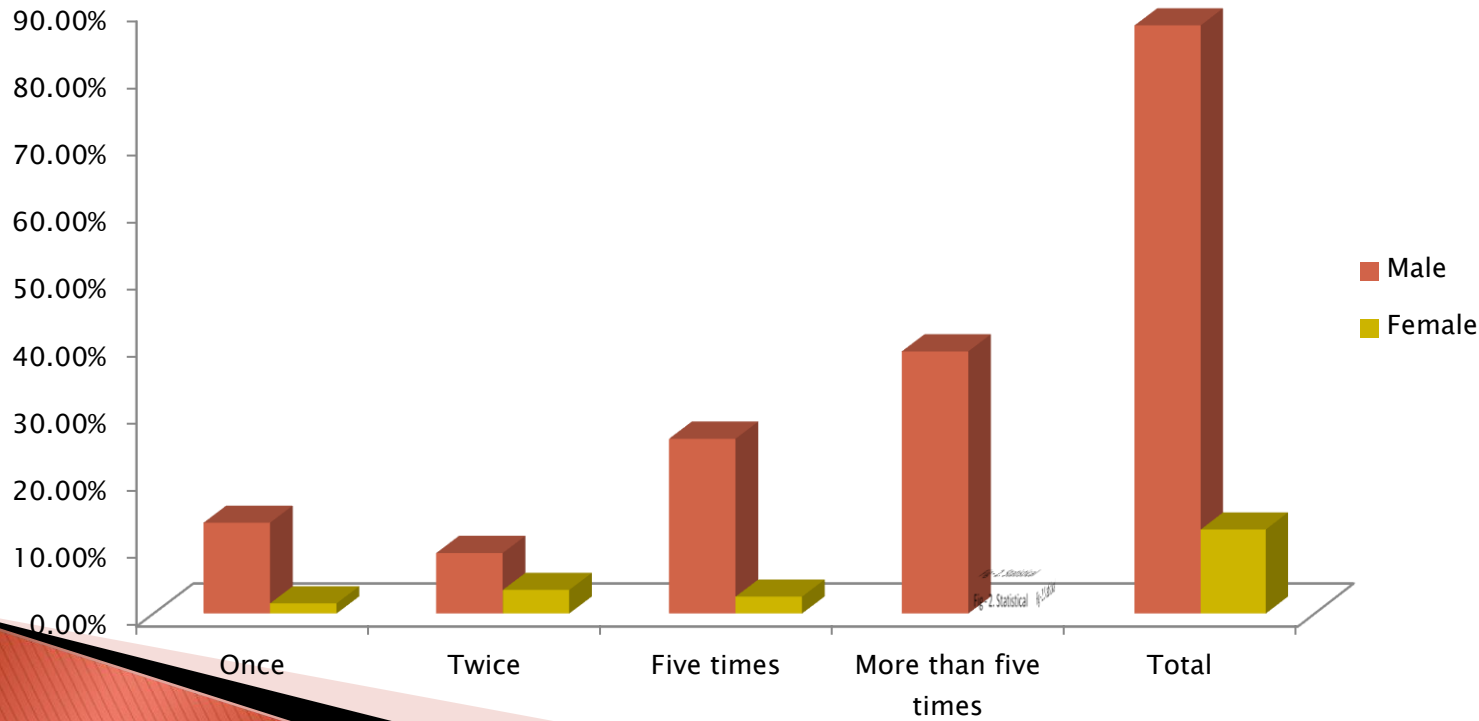


Fig 4: Statistical analysis of male and female group versus brand of smokeless tobacco among smokeless tobacco users

| Gender | Brand of smokeless tobacco | | | | | | total |
|---------------|----------------------------|-----------|-----------|------------|-----------|-------------|--------------|
| | Mawa | HANS | MDM | Chaini | Gutka | Other brand | |
| Male | 72 36% | 44 22% | 24 12% | 11 5.5% | 22 11% | 2 1% | 175 87.5% |
| Female | 8 4% | 2 1% | 4 2% | 1 0.5% | 10 5% | 0 0% | 25 12.5% |

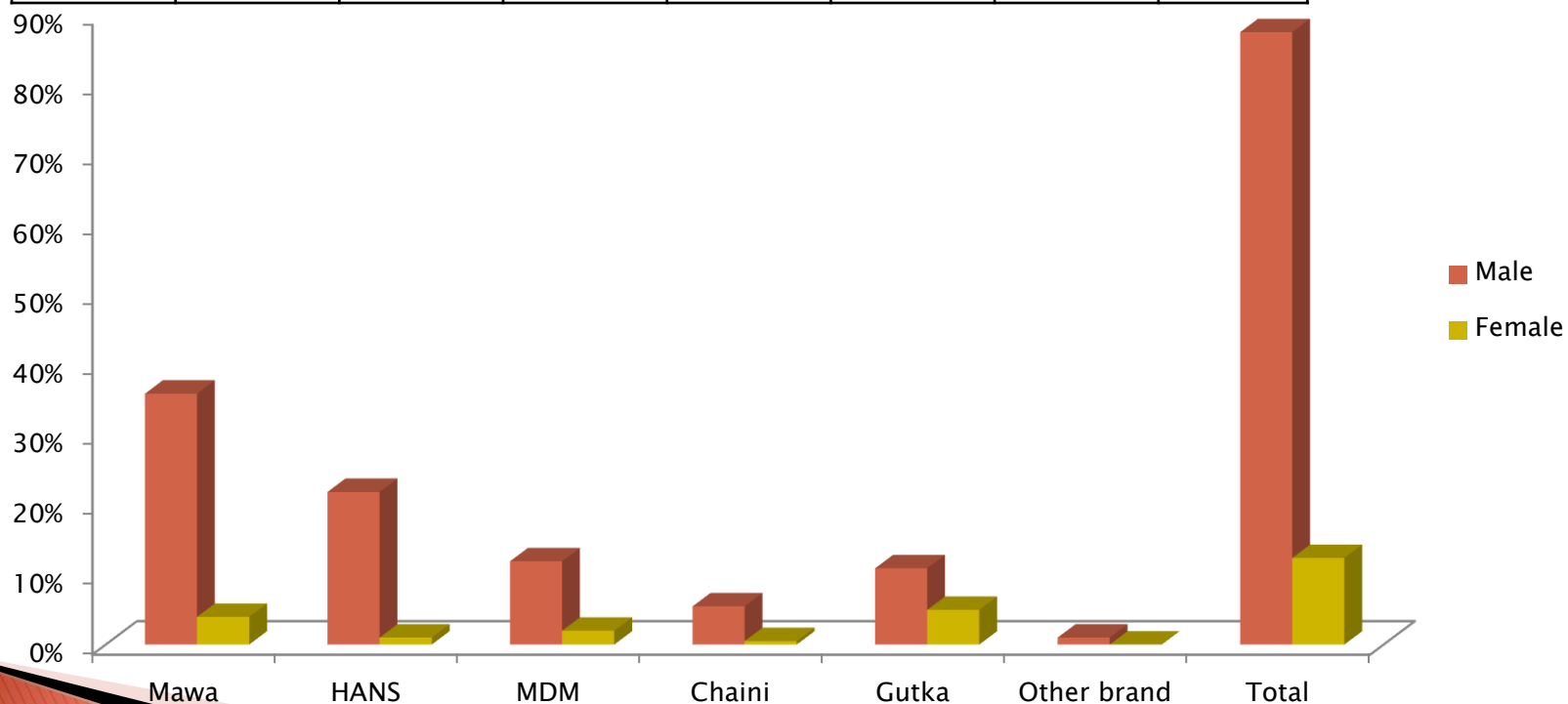
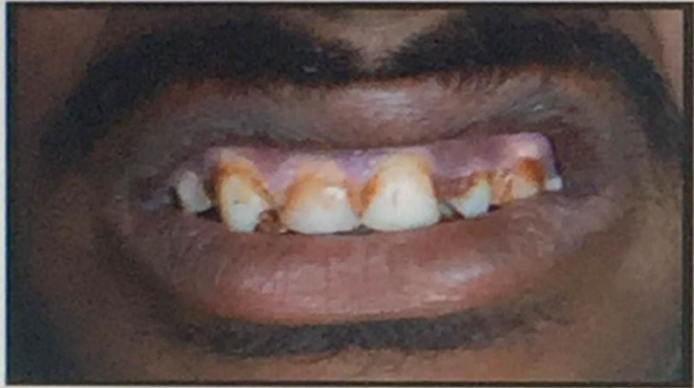
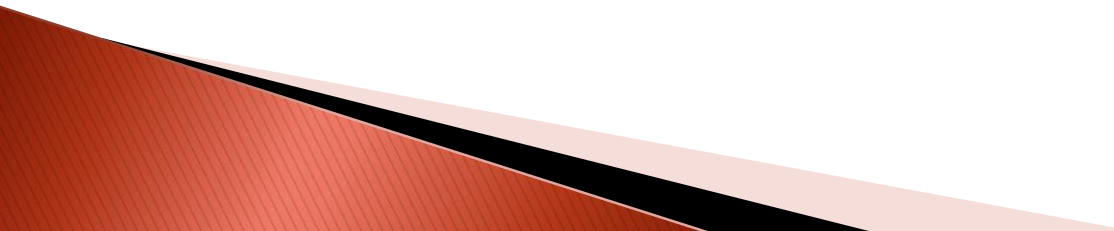


Plate 1. Oral changes observed in the smokeless tobacco users



- ▶ In recent years the habit of smokeless tobacco is spreading fast so much that even the school and college students are involved in this practice.
 - ▶ In Otteri, the use of smokeless tobacco in the form of MAWA, HANS and Gutkha is highly common probably because of poor socioeconomic status and lack of oral health awareness.
 - ▶ For the last couple of decades, smokeless tobacco has been available in several brands, often with an identical brand name, is called *pan masala*.
 - ▶ These products have become very popular especially among teenagers and young adults in many states of India, as shown by a number of surveys in Gujarat, Maharashtra, Bihar, Punjab and south India (Gupta & Ray, 2003).
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- ▶ It is concluded that smokeless tobacco may be a stronger risk factor and use of these exhibit a dose –response relationship with the occurrence of lesions.
- ▶ The present study was in consistent with the studies of Tomar *et al.*, (1997). Pola *et al.*, 2002, Justin Rayappa and Mazher Sultana, (2015) also reported the prevalence of lesions in adults and also in teenager in North Chennai, who are in use of smokeless tobacco.
- ▶ It is also observed that these smokeless tobacco users were unaware of smokeless tobacco Banned by the Government.
- ▶ Awareness was created among the present subject about the ill effects of the smokeless tobacco use and were advised to quit it for their good health.

Thank You

