

## Original Article

### Assessment of Incidence of Alcohol Consumption in Oral Cancer Patients: An Observational Study

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#### ABSTRACT:

**Background:** In general, ethanol consumption, independently from the type of beverage, contemplates about 5% of all cancers, mainly of the liver, upper digestive and gastroenteric tracts, pancreas, breast, and lung. Hence; we planned the present study to assess the incidence of alcohol consumption in oral cancer patients. **Materials & methods:** The present study was conducted with the aim of assessment of incidence of alcohol consumption in oral cancer patients. For the present study, a total of 50 oral cancer patients were enrolled over a time period of 3 years. Detailed clinical examination was done in all the patients. Histopathology reports were assessed for confirming the diagnoses of oral cancer. The patients were broadly categorized as drinker and non-drinker. Detailed medical history and habit history in all the patients was obtained. All the results were compiled in Microsoft excel sheet and were analyzed by SPSS software. **Results:** Alcohol consumption history was present in 20 subjects. Therefore, overall incidence of alcohol consumption among oral cancer patients in the present study was 40 percent. **Conclusion:** Alcohol definitely plays a contributing role in development of oral cancer. However; further studies are recommended.

**Key words:** Alcohol, Oral cancer.

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#### INTRODUCTION

The evidence for the human carcinogenic effects of alcohol drinking on the risk of cancers of the oral cavity and pharynx was considered sufficient in the IARC Monograph 44 in 1988. Alcohol, particularly when associated with tobacco use, has been recognized as an important risk factor for mouth cancer for almost 50 years.<sup>1-4</sup> Together, they are associated with approximately 75% of upper aerodigestive tract cancers. In general, ethanol consumption, independently from the type of beverage, contemplates about 5% of all cancers, mainly of the liver, upper digestive and gastroenteric tracts, pancreas, breast, and lung. The drinking pattern corresponds to the different "dimensions" of subject drinking and includes the type of beverage, as well as how much, when and how often an alcoholic beverage is consumed.<sup>5-8</sup>

Hence; we planned the present study to assess the incidence of alcohol consumption in oral cancer patients.

#### MATERIALS & METHODS

The present study was conducted with the aim of assessment of incidence of alcohol consumption in oral cancer patients. For the present study, a total of 50 oral cancer patients were enrolled over a time period of 3 years. Detailed clinical examination was done in all the patients. Histopathology reports were assessed for confirming the diagnoses of oral cancer. According to World Health Organization (WHO), the abstention group includes both "lifetime abstainers", who have never consumed alcohol, and "former drinkers", who previously consumed alcohol, but who did not in the last 12 months. The heavy binge drinking group comprises mainly young subjects with an intake of at least 60 or more grams of pure ethanol (>5 drinks) on, at least, one occasion in the past seven days, generally during the weekend. In the middle, a regular and low to moderate consumption can be advocated: light alcohol intake, usually, corresponds up to one drink/day, while moderate consumption to one

to two drinks/day.<sup>9</sup>For the present study, the patients were broadly categorized as drinker and non-drinker. Detailed medical history and habit history in all the patients was obtained. All the results were compiled in Microsoft excel sheet and were analyzed by SPSS software.

**RESULTS**

For the present study, a total of 50 oral cancer patients were enrolled. Among these 50 patients, 32 were males while the remaining 18 were females. Mean age of the patients of the present study was 48.5 years. All the patients were histopathologic confirmed cases of oral squamous cell carcinoma. Alcohol consumption history was present in 20 subjects. Therefore, overall incidence of alcohol consumption among oral cancer patients in the present study was 40 percent.

Table 1: Demographic data

| Parameter          | Number |
|--------------------|--------|
| Number of subjects | 50     |
| Males              | 32     |
| Females            | 18     |
| Mean age (years)   | 48.5   |

Table 2: Incidence of alcohol consumption history

| Parameter           | Number of patients | Incidence (%) |
|---------------------|--------------------|---------------|
| Alcohol consumption | 20                 | 40            |

**DISCUSSION**

In the present study, a total of 50 oral cancer patients were enrolled. Among these 50 patients, 32 were males while the remaining 18 were females. Varoni EM et al summarized the current controversy on the balance between ethanol and phytochemicals in wine, focusing on light drinking and oral cancer. Extensive literature search included PUBMED and EMBASE databases to identify in human studies and systematic reviews (up to March 2015), which contributed to elucidate this issue. Independently from the type of beverage, meta-analyses considering light drinking ( $\leq 1$  drinks/day or  $\leq 12.5$  g/day of ethanol) reported relative risks (RR) for oral, oropharyngeal, or upper aero-digestive tract cancers, ranging from 1.0 to 1.3. One meta-analysis measured the overall wine-specific RR, which corresponded to 2.1. Although little evidence exists on light wine intake, phytochemicals seem not to affect oral cancer risk, being probably present below the effective dosages and/or due to their low bioavailability. As expected, the risk of oral cancer, even in light drinking conditions, increases when associated with smoking habit and high-risk genotypes of alcohol and aldehyde dehydrogenases.<sup>9</sup>

In the present study, mean age of the patients of the present study was 48.5 years. All the patients were histopathologic confirmed cases of oral squamous cell carcinoma. Alcohol consumption history was present in 20 subjects. Therefore, overall incidence of alcohol consumption among oral cancer patients in the present study was 40 percent. Llewelyn J et al examined the

relationship of oral carcinoma to tobacco and alcohol consumption in patients referred over a 10-year period. All patients with carcinoma of the mouth and associated structures referred to the Joint Oncology/Maxillofacial Clinic at Edinburgh Royal Infirmary by General Medical and Dental Practitioners together with hospitals and hospital departments within South East Scotland. A total of 454 patients, with a mean age of presentation for males of 63.8 years, for females 68.0 years. 58% of those with carcinoma had a smoking history, with 24% drinking more than 20 units of alcohol per week. 60% of patients with oral tumours smoked. The tongue and floor of mouth were the most common sites, and over 95% of tumours here were squamous cell carcinoma. A high proportion of patients with floor of mouth tumours had a smoking history (79%) with a higher than average alcohol consumption (41% drank over 20 units). It is suggested that these two carcinogens, smoking and alcohol, could be site specific in the oral cavity, and have an additive role. In public health terms the Scottish people need to reduce the intake of both in order to adequately reduce their risk of having oral carcinomas.<sup>10</sup>

**CONCLUSION**

From the above results, it can be concluded that alcohol definitely plays a contributing role in development of oral cancer. However; further studies are recommended.

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