HEAD AND NECK CANCER ASSOCIATION WITH ALCOHOL

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ABSTRACT

BACKGROUND: Head and neck cancer is the commonest cancer in India occupying one-third place of all cancers. Due to more consumption of alcohol the parts like oral cavity, pharynx and larynx have more probability to be affected with cancer.

AIM: Evaluated the association among gender, alcohol consumption and head and neck cancer.

MATERIALS AND METHODS: Between June 2011 and January 2013, 103 cases diagnosed with head and neck cancer were investigated. All subjects were interviewed and examined according to the standardized protocol.

RESULTS AND DISCUSSION: Out of 65 males, 45 (69.23%) patients are alcohol drinkers, 19(29.23%) are non-drinkers and only one is ex drinker. But in females the ratio is different, drinkers are only one and non-drinkers are 37 (97.37%). Out of all non-drinkers are high with 56 (54.37%) followed by drinkers with 44.66% with its odds ratio and P value. It showed significant results.

CONCLUSION: In conclusion among alcohol drinkers, increasing consumption of alcohol was associated with increased risk of head and neck cancer in both men and women.

KEYWORDS: pharynx, larynx, oral cavity and alcohol.

INTRODUCTION:

Head and neck cancer is the commonest cancer in India and occupies one-third place of all cancers. (Sankaranarayanan R et al.,1998)(Sanghvi LD et al., 1999)(Takiar R et al.,2010). In certain head and neck cancers particularly cancers of the oral cavity, pharynx and larynx, Alcohol consumption is observed as a major risk factor (Baan R, et al.,2007). There are approximately 300,000 oral cancers, 142,000 pharynx cancers and 157,000 larynx cancers been diagnosed each year (Ferlay J et al., 2008). Most adults drink low amounts of alcohol regularly, while many other people do not drink at all. In general, men drink alcohol more often in larger amounts than women. Alcohol consumption is an important known cause of cancer and also leads to many other health problems. Alcohol use has consistently been indicated as a risk factor for head and neck cancer (Sturgis EM et al., 2004). Few epidemiological studies have compared the association of alcohol and head and neck cancer in men to that in women (Blot WJ et al., 1988) (Franceschi S et al., 1994)(Hayes RB et al., 1999), National Toxicology Program of the US Department of Health and Human Services lists consumption of alcoholic beverages as a known human carcinogen. Alcohol has ethanol, which is the primary component out of two chemicals, which damage the DNA of healthy cells. It gives weight gain and also leads to cancer risk. The International Agency for Research on Cancer has classified alcohol as a Group 1 carcinogen since 1988 (IARC 1988). It is the highest risk category and Alcohol is found to be the strongest determinate causing cancer of the larynx, with the high risk profile being quite similar to that seen for cancers of the oral cavity, pharynx, and esophagus (IARC 1988). More recent reviews by IARC and other agencies confirmed that drinking alcohol causes cancer (Boyle, P et al.,2003) (IARC 2012). Recently over time drink may increase the head and neck cancer. People who consume 3.5 or more drink per day are at a great risk of getting two to three times of HNC than non drinkers (Baan R et al.,2007). The risk factor is substantially higher with consuming of alcohol and tobacco (Hashibe M et al., 2009).

MATERIALS AND METHODS:

In this epidemiological study conducted between June 2011 and January 2013, 103 cases diagnosed with head and neck cancer were investigated. All subjects were interviewed and examined according to a standardized protocol. The information was procured from the Mahatma Gandhi cancer Hospital, Visakhapatnam, Andhra Pradesh India. Statistical analysis is done with Medcalc software.

Table 1: Drinking habit and gender

<table>
<thead>
<tr>
<th>Drinker habit</th>
<th>Male (%) (N=65)</th>
<th>Female (%) (N=38)</th>
<th>Total (%)</th>
<th>Odds Ratio</th>
<th>95% Confidence Interval</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drinkers</td>
<td>45 (69.23)</td>
<td>1 (2.63)</td>
<td>46 (64.66)</td>
<td>8.1250</td>
<td>3.7622-19.367</td>
<td>&lt;0.0001*</td>
</tr>
<tr>
<td>Non drinkers</td>
<td>19 (29.23)</td>
<td>37 (97.37)</td>
<td>56 (54.37)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ex drinkers</td>
<td>1 (1.54)</td>
<td>0</td>
<td>1 (0.97)</td>
<td></td>
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*p< 0.01- Significant; **p< 0.02 -moderately Significant; ***p< 0.005-Highly Significant; NS-not significant.

Table 2: Distribution of Drinking habits

<table>
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<tr>
<th>Habit</th>
<th>Mean</th>
<th>Std. Error</th>
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<td>Drinking habit</td>
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