



Safety Assessment of Alcohol on Oral Health

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Editorial

In this industrialized world, in addition to many threats, killer diseases, and natural calamities, human society is under a high stress due to alcoholism. "Alcoholism" is a "man-made ones" rather than that of nature. Alcoholism is the origin of many diseases including the major ones-cardiovascular diseases and cancer. There is also a significant increase in the consumption of alcohol among youngsters that lead to traffic accidents and other social issues. Alcoholism also results in the economic costs on the society [1].

There is a common saying, "Oral Health is the Overall Health". A survey of research on alcoholism showed several interesting findings on the effect of alcohol on the oral health. Chronic alcohol leads to cancer in the upper aerodigestive tract. Frequent consumption of alcohol, i.e., around 50 g can result in an increase in the risk of oral cancer when compared to non-drinkers by two or three times. Alcohol in mouthwashes also can play a role in the harmful effect in the oral cavity due to inherent nature of toxicity and carcinogenic potential. Recent reports show that alcohol may damage chromosomes and thereby increase micronuclei [1-3].

The carcinogenic potential of alcohol in the oral cavity is due to ethanol metabolite that is formed locally by oral bacteria. Alcohol being as a solvent that enhances the penetration of carcinogenic compounds into the mucosa. Chronic alcoholism leads to atrophy and lipomatous metamorphosis of the parenchyma of the parotid and submaxillary gland. This alteration ends in a functional impairment of saliva flow and also its increased viscosity. In this manner, the mucosal surface will then be insufficiently rinsed; and it leads to exposure to the

higher concentrations of locally acting carcinogens in addition to a prolongation of the contact time of the substances with the mucosa [4].

Multiple mechanisms are underlying in alcohol-associated cancer development, including the effect of acetaldehyde leading to the generation of reactive oxygen species, and enhanced procarcinogen activation. Acetaldehyde interferes at many sites with DNA synthesis and repair and can, consequently, result in tumor development [5]. Binge drinking also leads to excretion of folic acid at the excess amount that in turn leads to many health sequences including cancer [6]. Further research is needed in this direction to evaluate the underlying mechanism.

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