SCIENTIFIC ABSTRATCS

Effects of Alcohol on Athletic Performance

MOHSEN NEMATY, SAMANEH SADAT AYOUBI
Department of Nutrition, School of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran

Background: Alcohol is a substance that is consumed widely around the world. There are different interpretations regarding the effects of alcohol on athletic performance. Today, alcohol is introduced as a contributing factor for increasing athletic performance by some sport clubs.

Methods: The purpose of this article is to investigate the effects of alcohol on athletic performance. PubMed, Scopus, Medline, and textbooks were reviewed.

Results: The effect of alcohol is different according to the dose, individual habits and duration of exercise. The main mechanisms of the effect of alcohol on athletic performance are: Inadequate synthesis of hepatic glucose and impaired hepatic gluconeogenesis, even at low dose; alcohol can cause hypoglycemia and impair performance in prolonged exercise. Impaired regulation of body temperature during exercise is also an effect of alcohol. The vasodilator effect of alcohol cause a drop in core body temperature and impair athletic performance. Alcohol causes dehydration due to its diuretic effect. So, alcohol is not a good choice for rehydration after an exercise. Impairment of glycogen re-synthesis after exercise is due to alcohol interaction with glycogen synthesis in the liver. Psychological effects of alcohol impair reaction time, fine motor control, decision making, judgment and balance.

Conclusion: The result of this review does not show a positive effect of alcohol on athletic performance.

Keywords: Alcohols; Athletic Performance; Osmotic Diuretics; Vasodilator Agents

Alcohol Abuse and Oral Cancer

ATESA PAKFETRAT[1], ZOHREH DALIR-SANI[2], ZAHRA DELAVARIAN[2]
[1] Addiction Research Center and Department of Oral Medicine, Mashhad University of Medical Sciences, Mashhad, Iran
[2] Oral and Maxillofacial Diseases Research Center , Department of Oral Medicine, Mashhad University of Medical Sciences, Mashhad, Iran

Background: Various medical, psychiatric and social problems affecting alcohol abuser tend to overshadow their oral health. From an epidemiologic viewpoint, chronic consumption of alcoholic beverages is associated with an increased risk for the upper gastrointestinal tract cancer, and tobacco and alcohol are regarded as the major risk factors for oral cancer. The objective of this presentation is to express different hypotheses proposed to explain how ethanol, via oral or systemic route, can act as a risk factor for the development of oral cancer.

Methods: A web-based search for all types of articles published was initiated using Medline/PubMed, with the keywords such as "oral cancer", "alcohol consumption" and "prevention". The search was restricted to English articles published up to December 2013.

Results: Various hypotheses have been proposed in the explanation for ethanol acting as a risk factor, locally or systemically, in the development of oral cancer. The main local effects of ethanol are: increase in oral mucosa permeability, action of acetaldehyde, and the role of retinoid and the most important systemic effects are: liver suppression and salivary gland dysfunction. Alcohol and tobacco are considered as two principal risk factors in the development of oral cancer. Ethanol itself is not carcinogenic. However, its first metabolite (acetaldehyde) has recently been shown to be a local carcinogen in humans. Establishing a direct cause-effect relationship between both entities turns out to be difficult. This is due to the frequent association of alcohol with other risk bearing practices such as cigarette smoking. The alcohol in contact with the oral mucosa is capable of producing an alteration in morphology characterized by an epithelial atrophy, which means an increase in the susceptibility of the said tissue against other carcinogenic chemicals. In this manner, it was suggested that ethanol is capable of increasing the penetration of carcinogens through the oral mucosa.

Conclusion: A large body of evidence from epidemiological studies of different designs and conducted in different populations has consistently supported that alcohol consumption is strongly associated with an increase in risk of oral and pharyngeal cancer.

Keywords: Alcohol Drinking; Alcohol-Induced Disorders; Carcinogens; Mouth Neoplasms