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The association of alcohol drinking with migraine headache

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BOSTON UNIVERSITY SCHOOL OF MEDICINE

Migraine is a neurovascular disease that affects about 15% of the western population. Compounds in foods and beverages (chocolate, wine, citrus, etc) considered as migraine triggers include tyramine, phenylethylamine and possibly histamine and phenolic compounds. Avoiding those triggers may significantly reduce the frequency of migraines in some patients.

However, only a small percentage of patients in one study became headache-free simply by excluding those foods, epidemiological studies are pointing out that genetic factors may be an underlying cause. Discrepancies in the way people are reacting to wine intake, and whether or not it triggers migraine, may be potentially explained by genetic polymorphisms in specific enzymes related to metabolism. Alcoholic drinks are a migraine trigger in about one third of patients with migraine in retrospective studies on trigger factors. Many population studies show that patients with migraine consume alcohol in a smaller percentage than the general population. Research has shown a decreased prevalence of headache with increasing number of alcohol units consumed. The classification criteria of alcohol-related headaches remain problematic.

An excellent paper from The Headache Center in Empoli, Italy by Panconesi A et al (Curr Pain Headache Rep (2011) 15:177-184 summarizes the scientific data relating to alcohol and migraine headaches. The factors that trigger an attack of migraine, or of other headaches as well, are poorly understood. While retrospective studies tend to include alcohol as a trigger for an attack, the authors describe that in a recent prospective study (in which information on the factors that could potentially trigger an attack were collected prior to the migraine attack), menstruation, stress, and fatigue were found most commonly to relate to a subsequent attack. In the present paper, the authors reviewed the role and mechanism of the action of alcohol or other components of alcoholic drinks in relation to alcohol-induced headache. They conclude from their review that reports overestimate the role of alcohol, as well as other foods, in the triggering of migraine.

International Scientific Forum on Alcohol Research members thought that this was a very balanced review of the subject, and that it provided straightforward and sensible advice. Although some individuals surely have the onset of a migraine or other type of headache after the consumption of wine or alcohol, the findings are not consistent (in this study, beer consumption on the previous day reduced the risk of a migraine attack). Forum members suggest that given that subjects reporting migraine headaches have been found to be at increased risk of cardiovascular disease, it would not be appropriate to advise all such sufferers to avoid alcohol. As suggested by the authors of this paper, it may be reasonable for migraine sufferers to drink small amounts of specific types of alcoholic beverages to see if each beverage is tolerated or not. After seeing the effects, and factoring in symptoms from other dietary or lifestyle elements (sleep, stress, dehydration), a reasonable discussion can be carried out with one's physician with respect to commencing or continued alcohol use.

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Reference: Panconesi A, Bartolozzi ML, Guidi L. Alcohol and migraine: What should we tell patients? Curr Pain Headache Rep 2011;15:177-184. DOI 10.1007/s11916-011-0184-4.

Comments on the present paper were provided by the following members of the International Scientific Forum on Alcohol Research:

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For the detailed critique of this paper by the International Scientific Forum on Alcohol Research, go to <http://www.bu.edu/alcohol-forum/critique-044-the-association-of-alcohol-drinking-with-migraine-headache-12-june-2011/>

The specialists who are members of the Forum are happy to respond to questions from Health Editors regarding emerging research on alcohol and health and will offer an independent opinion in context with other research on the subject.

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