ALCOHOL AND CARDIOVASCULAR DISEASES : A HISTORICAL PERSPECTIVE

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ABSTRACT

The relations of alcoholic beverage consumption to various cardiovascular conditions can be approached by considering three sets of disparities. First and of most clinical importance is the difference between the harmful effects of heavier drinking and the beneficial effects of light - moderate drinking. Second is the disparity in relationships between alcohol consumption and various specific cardiovascular conditions, making it appropriate to consider separately several disorders. The final important disparity is that of differences in the apparent effects of the various beverage types, a topic which includes possible effects of non-alcohol ingredients in the beverages.

The increased cardiovascular risks of heavy drinking, defined as usual daily consumption of three standard drinks or more, include: 1) Alcoholic cardiomyopathy, related only to very heavy sustained drinking in susceptible persons. 2) Systemic hypertension, an association confirmed by consistent epidemiologic data and clinical experiments, but without an established mechanism. 3) Paroxysmal supraventricular rhythm disturbances in binge drinkers (the "holiday heart syndrome"). 4) Hemorrhagic stroke, probably both subarachnoid and intracerebral.

Light – moderate drinking is probably not related to increased risk of any cardiovascular condition and, in observational studies, is consistently related to lower risk of coronary heart disease and ischemic stroke. A protective hypothesis is robustly supported by evidence for plausible biological mechanisms. Since coronary heart disease is the commonest type of heart disease there is an impact on total mortality statistics, so that light-moderate drinkers are at lower risk of death.
International comparisons and some prospective study data suggest that wine is more protective against coronary heart disease than liquor or beer. Reports of possible non-alcohol beneficial components in wine (especially red) support the hypothesis of extra protection by wine, but a healthier pattern of drinking or more favorable risk traits in wine drinkers may also be involved.

Historical misunderstandings and diversions as well as dogmatic beliefs have sometimes impeded progress in understanding alcohol-health relationships. An objective, unbiased approach and individualization of practical advice are needed.
OBJECTIVES AND GOALS
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Presentation by Arthur L. Klatsky, MD

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Purpose
To review relationships of lighter and heavier alcohol drinking to various cardiovascular conditions with emphasis on historical developments and practical advice about lighter drinking.

Relevance
Most adult Americans drink some alcohol and are aware of problems of heavy drinking. Possible benefits of lighter drinking for coronary disease risk and possible special benefit of red wine have received considerable media attention. Conflicting reports from studies and unclear public health pronouncements leave many uncertain about how to apply these data.

Goals and Objectives
To give an overview of the disparate relationships of alcohol to cardiovascular conditions and a practical perspective about giving advice or making health-oriented decisions about alcohol drinking.

After attending the program, the participant will be able to:

1. Describe known relationships of light and heavy alcohol drinking to several cardiovascular problems.
2. Understand the evidence about a possible protective effect of drinking alcoholic beverages of various types against coronary heart disease and ischemic stroke.

Presentation Description
The presentation will review the history and current evidence about relationships of alcohol drinking to dilated cardiomyopathy, heart rhythm disturbances, high blood pressure, hemorrhagic and ischemic stroke, and coronary heart disease. The validity of the data about coronary disease protection will be reviewed, including the epidemiological studies, evidence for biological plausibility, and the beverage choice issue (i.e., “Is red wine really better?”).

Outline/Key Points

A. Definitions of light/moderate and heavy drinking.
   1. Amount
   2. Pattern
   3. Size of drinks

B. Disparities of alcohol-cardiovascular relationships
   1. Heart muscle impairment (cardiomyopathy)
   2. Atrial rhythm disturbances
   3. High blood pressure
4. Hemorrhagic and ischemic stroke
5. Coronary heart disease
   a. Angina, heart attack, death
   b. Types of epidemiological studies
   c. Mechanisms (blood lipids, anticoagulant actions, insulin sensitivity, tranquilizing effect)
   d. Effects of wine, liquor, and beer.
   e. Is it causal? (I.e., really protective?). If so, what is the magnitude of the protection and who is protected?

C. What knowledge is needed to make rational decisions about drinking?
   1. Family and personal drinking history
   2. If a nondrinker, why
   3. Possible medical reasons for special risk (liver disease, major psychiatric problems, medication interactions)
   4. Other lifestyle habits

Pearls

A. Who should not drink at all and who should not drink for health?
B. What are the dangers of lighter drinking?
C. Is there a “French paradox”?

References


