Letter to the Editor

The alcohol-intake paradox: caution in a field of developing evidence

La paradoja del consumo de alcohol: cautela ante una evidencia en desarrollo

To the Editor,

We have read with considerable interest the editorial by Estruch and Sacanella,[1] published in *Revista Española de Cardiología*, on the work by Bermúdez-López et al.[2] The authors of the editorial state that intake of moderate amounts of alcohol (5.0-14.9 g ethanol/d) is one of the most useful ways to improve life expectancy and decrease death from cardiovascular causes.

Analysis of the effects of alcohol consumption has been a hugely controversial topic in recent decades. The work has been affected by the existence of countless associated variables complicating the use of observational studies (eg, consumption pattern, duration, alcohol type and quality, individual metabolism).

Numerous studies have reported an association between alcohol consumption and various cardiovascular diseases, such as hypertension, arrhythmias, heart failure, stroke, and sudden cardiac death.[3] Beyond the cardiovascular field, moderate alcohol consumption has been linked to the development of liver cirrhosis[4] and cancer.[5] In addition, it is also implicated in accidental death, such as that from traffic accidents.[6] This effect is apparent with even low consumption.

Regarding mortality, large-scale observational studies have identified an association between low-to-moderate alcohol consumption and a reduction in both overall and cardiovascular mortality.[7] These studies established in the medical community the J-curve, which graphically illustrates the benefits of moderate alcohol consumption on mortality. However, various authors have criticized the design classically used in these analyses.[8] Some of the objections raised against these studies include the differences in the quantification of consumption among countries and research groups, the omission of certain confounding predictive factors, and the exclusion of consumption patterns, as well as their huge temporal variability.

A growing body of evidence currently indicates a clear relationship between low or moderate ethanol consumption and overall and cancer-specific mortality.[8,9] With a sample of 24 029 adults older than 50 years, Goulden et al.[10] found that alcohol consumption was directly correlated with a higher risk of death, with no J-curve. In addition, Knott et al.[11] reported that the "protective" effect of alcohol against mortality was attenuated after adjustment for potential confounding factors. Moreover, data from the Global Burden of Disease Study have identified alcohol consumption as the most important risk factor for death in the population aged between 15 and 49 years.[3]

Thus, we believe that there is sufficient evidence supporting the hypothesis that even moderate alcohol consumption can decrease life expectancy. In our opinion, and without improved evidence from in vivo studies (which would be difficult to conduct), a more cautious approach would be the most appropriate strategy to reflect the available evidence as rigorously as possible.

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Both J. Abellán-Huerta and M. Negreira-Caamaño have equally contributed to the design of this Letter to the Editor, as well as to the literature search and the drafting of the article and its subsequent critical revision.

CONFLICTS OF INTEREST

The authors of the present work declare the absence of conflicts of interest related to the present research study.

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The alcohol-intake paradox: caution in a field of developing evidence. Response

La paradoja del consumo de alcohol: cautela ante una evidencia en desarrollo. Respuesta

To the Editor,

We are writing in reference to our editorial,[1] in which we mention that the most effective measures shown to extend life expectancy include moderate alcohol intake (5-14.9 g of ethanol/d). A healthy lifestyle, including moderate intake of alcoholic beverages, led to a reduction of 74% in all-cause death, 65% in cancer mortality, and 82% in cardiovascular mortality.[2]

Numerous studies have found that moderate alcohol intake has a protective effect on the cardiovascular system. Meta-analysis results[3] indicate that a moderate intake of alcoholic beverages—mainly wine—lowers the risk of breast cancer, provided that it is part of a healthy dietary pattern. These studies take into consideration the presence of confounding factors, such as the lack of "patients" in the control arm (abstainers), avoid inaccurate records on the use of alcoholic beverages, specify the alcohol intake pattern (differentiating between daily alcohol intake and cumulative weekend or binge drinking), and look at the effect of healthy dietary patterns, such as the Mediterranean diet. Additionally, in vitro studies have identified various possible mechanisms for the protective effects of moderate alcohol intake, supporting the plausibility of epidemiologic results.

In conclusion, as clinicians we have sufficient evidence to counsel patients according to alcohol consumption: *a)* patients who drink in excess should be urged to reduce intake to less than 20 g of alcohol a day for men and less than 10 g for women; *b)* patients with moderate alcohol intake should be reminded to avoid any increase in intake, and *c)* patients who abstain should never be advised to drink alcohol. All of these patients should be encouraged to eat a healthy diet, namely the Mediterranean diet, and those who drink alcohol should be directed to preferably drink wine or beer, always with meals.

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