<https://helda.helsinki.fi>

Letter to the Editor : Moderate Alcohol Use in Fatty Liver Disease: Don't Throw the Cabernet Out With the Bathwater REPLY

Åberg, Fredrik

2020-05

Åberg , F , Färkkilä , M , Salomaa , V & Julia , A 2020 , ' Letter to the Editor : Moderate Alcohol Use in Fatty Liver Disease: Don't Throw the Cabernet Out With the Bathwater REPLY ' , Hepatology , vol. 71 , no. 5 , pp. 1888-1889 . <https://doi.org/10.1002/hep.31051>

<http://hdl.handle.net/10138/323856>

<https://doi.org/10.1002/hep.31051>

acceptedVersion

Downloaded from Helda, University of Helsinki institutional repository.

This is an electronic reprint of the original article.

This reprint may differ from the original in pagination and typographic detail.

Please cite the original version.

MR. FREDRIK OSKAR ÅBERG (Orcid ID : 0000-0002-3833-0705)

Article type : Correspondence

Reply: Alcohol and mortality in NAFLD: Is the cabernet causal or confounder?

Fredrik Åberg (1, 2), Martti Färkkilä (3), Veikko Salomaa (4), Antti Jula (4)

(1) Transplantation and Liver Surgery Clinic, Helsinki University Hospital, Helsinki University, Helsinki, Finland

(2) The Transplant Institute, Sahlgrenska University Hospital, Gothenburg, Sweden

(3) Clinic of Gastroenterology, Helsinki University and Helsinki University Hospital, Helsinki, Finland

(4) National Institute for Health and Welfare, Finland

Keywords: wine; NAFLD; cardiovascular; mortality

This article has been accepted for publication and undergone full peer review but has not been through the copyediting, typesetting, pagination and proofreading process, which may lead to differences between this version and the [Version of Record](#). Please cite this article as [doi: 10.1002/HEP.31051](https://doi.org/10.1002/HEP.31051)

This article is protected by copyright. All rights reserved

Correspondence: Fredrik Åberg, MD, PhD. HUCH Meilahti Hospital, PB 372, 00029 HUS, Finland. Email: Fredrik.Aberg@helsinki.fi

List of abbreviations: CVD, cardiovascular disease; NAFLD, non-alcoholic fatty liver disease; GBD, Global Burden of Disease

Financial Support: No financial support was received.

To the editor:

We thank doctors Gow, Testro, Hey, and Sinclair for their interest in our study and for sharing their views on the potential benefits of alcohol.

Indeed, we found an association between light alcohol use and reduced all-cause mortality and reduced incidence of cardiovascular disease (CVD) in never smokers with non-alcoholic fatty liver disease (NAFLD) (1). However, this observation does not necessarily translate into a benefit of alcohol as a therapeutic approach in (CVD) prevention, mainly because of potential residual confounding from, for instance, an imbalance in dietary patterns between light drinkers and abstainers.

The J-shaped association between alcohol and mortality observed in several population studies was recently challenged by the Global Burden of Disease (GBD) study (2), and by a large Asian Mendelian randomization study analyzing genetic proxies for drinking habits (3). Controversy also exists in NAFLD regarding the effect of alcohol on CVD risk (4).

One of the methodological issues introduced by the GBD investigators to better overcome difficult-to-control bias from residual confounding and reverse causation was the exclusion of all abstainers. In our study, we excluded former drinkers, but not lifetime abstainers. When re-analyzed in our population NAFLD cohort after the additional exclusion of lifetime abstainers, similar to the GBD study, the apparent mortality-benefit of light alcohol use diminishes (Figure).

Gow et al also argue that wine could be beneficial for the liver in NAFLD. Although we found wine possibly less harmful than other alcoholic beverages at moderate-level consumption, no liver-protective effect was observed in neither our study nor in the only published randomized controlled trial to date (5), in which light red wine consumption, compared to abstinence, tended to increase liver fat content rather than protect from it.

Additional concerns with alcohol as a therapeutic approach include a substantial individual variation as to when alcohol starts to become harmful, probably dependent on gender, drinking pattern, genetics, obesity, and the gut microbiome.

The debate over the risk-benefit of light alcohol use remains open, awaiting further prospective long-term studies with objective measurements of cumulative alcohol consumption. In the meantime, caution with the cabernet consumption, and keep the cork closed in cirrhosis!

References

1. Åberg F, Puukka P, Salomaa V, et al. Risks of light and moderate alcohol use in fatty liver disease – follow-up of population cohorts. *Hepatology* 2019.
2. Wood AM, Kaptoge S, Butterworth AS, et al. Risk thresholds for alcohol consumption: combined analysis of individual-participant data for 599 912 current drinkers in 83 prospective studies. *Lancet*. 2018;391(10129):1513-1523.
3. Millwood IY, Walters RG, Mei XW, et al. Conventional and genetic evidence on alcohol and vascular disease aetiology: a prospective study of 500 000 men and women in China. *Lancet*. 2019;393(10183):1831-1842.
4. VanWagner LB, Ning H, Allen NB, et al. Alcohol use and cardiovascular disease risk in patients with nonalcoholic fatty liver disease. *Gastroenterology*. 2017;153(5):1260-1272
5. Kechagias S, Zanjani S, Gjellan S, et al. Effects of moderate red wine consumption on liver fat and blood lipids: a prospective randomized study. *Ann Med*. 2011;43(7):545-54.

Figure legend

Figure. The relationship between daily alcohol consumption and risk for incident advanced liver disease when either including or excluding lifetime alcohol abstainers, by multivariate Cox regression analysis adjusted for age, sex, marital status, education, employment, smoking, exercise, body mass index, waist circumference, diabetes, systolic blood pressure, ASA use, serum glutamyltransferase, history of cancer, and history of CVD. Former drinkers (abstainers at baseline) are excluded in both analyses.

hep_31051_f1.eps