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Daily Drinking Increases Risk of Alcoholic Cirrhosis

Results Also Suggest That Recent Alcohol Consumption, and Not Lifetime Alcohol Consumption, Is the Strongest Predictor, According to Report in the *Journal of Hepatology*

Amsterdam, The Netherlands, January 26, 2015 — Approximately 170,000 people die from alcoholic cirrhosis of the liver in Europe every year. Although alcohol is the most important risk factor, less is known about the significance of different patterns of drinking. Currently scientists believe that cirrhosis is a function of the volume of alcohol consumed irrespective of patterns of drinking. Investigators have now established that alcohol drinking pattern has a significant influence on the risk of cirrhosis and that daily drinking increases that risk compared with drinking less frequently. Results are published in the *Journal of Hepatology*.

“For the first time, our study points to a risk difference between drinking daily and drinking five or six days a week in the general male population, since earlier studies were conducted on alcohol misusers and patients referred for liver disease and compared daily drinking to ‘binge pattern’ or ‘episodic’ drinking,” observed lead investigator Gro Askgaard, MD, of the Department of Hepatology, Copenhagen University Hospital, Rigshospitalet, and the National Institute of Public Health, University of Southern Denmark, Copenhagen, Denmark. “Since the details of alcohol induced liver injury are unknown, we can only speculate that the reason may be that daily alcohol exposure worsens liver damage or inhibits liver regeneration.”

To examine the patterns of drinking associated with alcoholic cirrhosis, researchers in Denmark investigated the risk of alcoholic cirrhosis among nearly 56,000 participants aged between 50 and 64 in the Danish Cancer, Diet, and Health study (1993-2011). All participants first completed a detailed food-frequency questionnaire along with a questionnaire regarding lifestyle and background factors (alcohol, smoking, physical activity, and years of education) as well as a brief physical examination including measurement of waist circumference. Amount of alcohol intake was reported as the average amount per week of specific types of alcohol: beer, wine, and liquor. Participants were also asked to report their average amount of alcohol intake when they were 20–29, 30–39, 40–49, and 50–59 years old. Follow-up information came from national registers.

The researchers calculated hazard ratios (HRs) for alcoholic cirrhosis in relation to drinking frequency, lifetime alcohol amount, and beverage type.

Among the 55,917 participants, 257 men and 85 women developed alcoholic cirrhosis, corresponding to an incidence rate of 66 in men and 19 in women per 100,000 person-years. There were no cases of alcoholic cirrhosis among lifetime abstainers.

In men, the results showed that daily drinking increases the risk of alcoholic cirrhosis compared with drinking less frequently. The results also suggest that recent alcohol consumption, and not lifetime alcohol consumption, is the strongest predictor of alcoholic cirrhosis.

Compared with beer and liquor, wine seems to be associated with a lower risk of alcoholic cirrhosis up to a moderate level of weekly alcohol amount. Among women, researchers were unable to draw firm conclusions due to low statistical power, though in general they found the same trends.

“Earlier studies regarding lifetime alcohol consumption and risk of alcoholic cirrhosis reached opposite conclusions, for instance, whether a previous high level of alcohol amount predicted future risk, even after having cut down,” commented Dr. Askgaard. “From a clinical point of view, this is relevant in order to execute evidence-based counselling, and from a public health perspective, it may guide health interventions for the general population.”

“This is a timely contribution about one of the most important, if not the most important risk factor for liver cirrhosis globally, because our overall knowledge about drinking patterns and liver cirrhosis is sparse and in part contradictory,” said noted expert Jürgen Rehm, PhD, Director of the Social and Epidemiological Research Department of the Centre for Addiction and Mental Health, Toronto. “The work of Askgaard and colleagues not only increases our knowledge, but also raises questions for future research. The question of binge drinking patterns and mortality is far from solved, and there may be genetic differences or other covariates not yet discovered, which play a role and could explain the different empirical findings.”

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NOTES FOR EDITORS

“Alcohol drinking pattern and risk of alcoholic liver cirrhosis: A prospective cohort study,” by Gro Askgaard, Morten Grønbæk; Mette S. Kjær; Anne Tjønneland; and Janne S. Tolstrup. It is published in the *Journal of Hepatology*, online in advance of Volume 62, Issue 5 (May 2015), DOI: http://dx.doi.org/10.1016/j.jhep.2014.12.005.

Full text of this article is available to credentialed journalists upon request; contact Sybrand Boer Iwema at +31 20 485 2781 or hmsmedia@elsevier.com . Journalists wishing to interview Gro Askgaard may contact her directly at gask@dadlnet.dk. Jürgen Rehm may be contacted at jtrehm@gmail.com.

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The *Journal of Hepatology* is the official journal of the European Association for the Study of the Liver (EASL). It publishes original papers, reviews, case reports and letters to the Editor concerned with clinical and basic research in the field of hepatology. The journal, with an Impact Factor of 10.401, is ranked 5th among titles in Gastroenterology and Hepatology according to the 2013 Journal Citation Reports® published by Thomson Reuters, 2014.

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In the forty plus years since EASL was founded, it has grown from a small organization that played host to 70 participants at its first meeting, to becoming the leading liver association in Europe. EASL attracts the foremost hepatology experts as members and has an impressive track record in promoting research in liver disease, supporting wider education and promoting changes in European liver policy.

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