Light-moderate alcohol consumption and risk of atrial fibrillation
Katalin Gemes

1Department of Medicine, Beth Israel Deaconess Medical Center, Boston, United States
2Department of Medicine, Beth Israel Deaconess Medical Center, Boston, United States
3Dpt. of Circulation and Medical Imaging, NTNU, Clinic of Cardiology, St Olav’s Hospital, Trondheim, Norway
4Stroke Unit, Dpt of Internal Medicine, St Olav’s Hospital; Dpt of Neuroscience, NTNU, Trondheim, Norway
5Dpt of Public Health Sciences, Karolinska Institutet, Stockholm, Sweden
6Dpt. of Public Health and General Practice, Faculty of Medicine, NTNU, Trondheim, Norway
Contact: katalin.gemes@ki.se

Background
Compelling evidence suggests that excessive alcohol consumption increases the risk of atrial fibrillation (AF), but the effect of light-moderate alcohol consumption is uncertain. We aimed to investigate the association of light-moderate alcohol consumption within recommended limits with AF risk.

Methods and Results
Among 47,002 participants with information on alcohol and free from AF in the HUNT3, a population-based cohort study conducted between 2006 and 2008 in Norway, we identified...
1,697 validated diagnoses of AF until 30 November 2015. Average alcohol consumption was 3.8 ± 4.8 gram per day in the population. Average quantity of alcohol consumption was associated with increased risk of AF in a curvilinear manner, with increasingly steep risk increases with heavier alcohol intake above 7 drinks per week. The multivariable-adjusted hazard ratio for those who reported more than 7 drinks per week consumption was 1.38 (95% CI: 1.06-1.81) compared to long-term non-drinkers. However, the proportion of the population risk of AF attributable to consumption within recommended limits and without binge- and problem drinking was only 0.2% (95% CI: -1.0%, 1.4%).

Conclusions
Alcohol consumption was associated with a curvilinearly increasing risk on AF, but we observed no increased risk among individuals who reported alcohol intake within the recommended limits without binge- or problem drinking.

Key messages:
- Alcohol consumption was associated with a curvilinearly increasing risk on AF.
- We found no increased risk among individuals who reported alcohol intake within the recommended limits without binge- or problem drinking.