



Is Alcohol Consumption Associated with a Lower Risk of Cardiovascular Events in Patients Treated with Statins? An Observational Real-World Experience

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Background: Alcohol consumption has long been associated with cardiovascular (CV) preventive benefits in observational studies, but it also has adverse potential, and no randomized controlled trials have assessed its benefit/risk ratio. In the current prevention era, statins are widely used as safe and effective preventive therapies. This study evaluated whether alcohol use is associated with a lower risk of major adverse CV events (MACE) in patients (pts) on statins for primary and for secondary prevention.

Methods: We searched the cardiac catheterization laboratory electronic medical record (eMR) database for Intermountain Healthcare pts with a prescription history of statin use or non-use and a self-report of alcohol use or non-use. Pts were stratified by primary or secondary prevention status. Long-term MACE, including death, myocardial infarction, stroke, and heart failure hospitalization, were determined and compared by alcohol and statin use.

Results: Pts not on statins (n=416) and on statins (n=164) for primary prevention who used alcohol averaged 54±16 and 62±11 years old, respectively (males: 46.4% and 53.7%), while those not on statins, or on statins, who did not use alcohol (n=808 and n=313) were 57±17 and 64±13 years old (males: 57.2% and 67.7%). MACE rates during a mean follow-up of 4.0 [SD 3.2] years were 6.5% and 14.2% for primary prevention alcohol users and non-users, respectively, adjusted hazard ratio (HR) 0.50 (CI 0.33, 0.78), p=0.002, for those not on statins, and were 19.5% and 22.7%, HR 0.84 (CI 0.54, 1.32), p=0.45, for those on statins. For secondary prevention, MACE rates for alcohol users and non-alcohol users were, respectively, 18.2% and 19.9% for pts not on statins (p=0.70) and 19.9% and 22.7% for those on statins (p=0.31).

Conclusions: In this large healthcare population, alcohol consumption was beneficial in statin untreated pts, but it showed no benefit when added to statins for primary prevention and no benefit with or without statin use for secondary prevention. Additional studies are indicated to verify these observations. If confirmed, these findings may inform professional society recommendations and personal choices in alcohol consumption for CV prevention.

