

Alcohol Consumption and Ischemic Stroke Risk: The ARIC Study

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Previous studies have consistently shown an increase in ischemic stroke risk among heavy drinkers; however, the data for ischemic stroke risk among those consuming light to moderate amounts of alcohol have been inconclusive, with either no association or a “J” shaped relationship reported. This study examined the relationship between alcohol consumption and ischemic stroke risk among 14,336 Atherosclerosis Risk in Communities (ARIC) study participants aged 45-64 years who were free of CHD and had no history of stroke at baseline examination in 1987-89. Incident ischemic strokes were ascertained through 1999 by ongoing surveillance of study participants. Baseline self reported drinking status of usual ethanol intake (g/week) was categorized into never, former, and current (light, moderate, and heavy) groups. Multivariate Cox proportional hazards models were used to examine the association of alcohol consumption with ischemic stroke incidence. During a mean follow-up time of 10.8 years, 346 incident ischemic strokes occurred, with 190 occurring among whites and 156 occurring among blacks. The age-adjusted incidence rates (per 1000 person-years) for ischemic stroke by drinking status were 2.55, 2.14, 2.35, 2.13, and 2.65 for never, former, light, moderate, and heavy users, respectively, indicating highest stroke risk among heavy consumers. The hazard rate ratios (HRs) and 95% confidence intervals (CIs) for risk of ischemic stroke adjusted for age, sex, smoking status, diabetes, and hypertension, among whites were 1.09 (0.64,1.86) for light vs. never, 0.85 (0.63,1.14) for moderate vs. never, and 0.97 (0.81,1.17) for heavy vs. never. Among blacks the adjusted HRs and 95% CIs were 1.66 (0.92,3.03) for light vs. never, 1.21 (0.90,1.64) for moderate vs. never, and 0.92 (0.72,1.17) for heavy vs. never. These results do not support an association between alcohol consumption and ischemic stroke risk.