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Alcohol consumption and lung cancer risk in never smokers: a meta-analysis.

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Abstract

BACKGROUND: The role of alcohol consumption as an independent risk factor for lung cancer is controversial. Since drinking and smoking are strongly associated, residual confounding by smoking may bias the estimation of alcohol consumption and lung cancer risk relation.

Therefore, we undertook a meta-analysis to quantitatively assess the association between alcohol and risk of lung cancer in never smokers.

METHODS: After a literature search in Medline, we included all case-control and cohort studies published up to January 2010 that reported an estimate of the association between alcohol intake and lung cancer risk in never smokers.

RESULTS: We selected 10 articles, including 1913 never smoker lung cancer cases. The random-effects pooled relative risk (RR) for drinkers versus nondrinkers was 1.21 [95% confidence interval (CI) 0.95-1.55]. The same figure was 1.05 (95% CI 0.89-1.23) after the exclusion of one outlier study. At the dose-response analysis, RR for an increase in alcohol intake of 10 g/day was 1.01 (95% CI 0.92-1.10).

CONCLUSIONS: Alcohol consumption was not associated with lung cancer risk in never smokers. Even if the synergistic effect of smoking and alcohol cannot be ruled out, our results suggest that alcohol does not play an independent role in lung cancer etiology.

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