## Effects of moderate alcohol consumption on inflammatory biomarkers.

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OBJECTIVES: Although light to moderate alcohol consumption has been associated with lower all-cause and cardiovascular (CV) mortality, the underlying mechanisms are only partly understood. Evidence has emerged in recent years that atherosclerosis is an inflammatory disease. We hypothesize that beneficial effects of moderate alcohol consumption on CV mortality may be linked to antiinflammatory effects. METHODS AND RESULTS: The association between alcohol consumption and concentrations of high sensitivity C-reactive protein (hs-CRP) and fibringen were investigated. Six hundred and thirtysix eligible individuals apparently healthy were included. 393 (61.8%) were men and 243 (38.2%) were women. The mean ages for men and women were 51.5 +/- 12.4 y and 50.8 +/- 12.1 y, respectively. Daily alcohol intake showed an apparent Ushaped association with hs-CRP and fibrinogen values in men, with lowest levels at an alcohol intake of 20-70 g daily (0.139 +/- 0.116 mg/dl for hs-CRP and 274 +/- 51.7 mg/dl for fibrinogen). Proportional odds model analysis showed moderate alcohol consumption (20 to 70 g vs. no drinking per day, OR = 0.32, 95% CI: 0.14-0.74), and regular exercise (> or = 3 times/week vs. no, OR = 0.52, 95% CI: 0.35-0.77) were negatively correlated with elevated hs-CRP values. CONCLUSIONS: Our results parallel the demonstration of a U-shaped relationship between alcohol consumption and cardiovascular mortality, and suggest that anti-inflammatory effects of moderate alcohol intake may partly be linked to a low cardiovascular and overall mortality.

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