

## Association between Alcohol Consumption and Presence of Coronary Artery Disease

Tuesday 11:20-11:30 AM | SSG02-06 | Room: S502AB

### PURPOSE

It has been suggested that light alcohol consumption is associated with reduced risk for coronary artery disease (CAD). However, data regarding regular alcohol consumption and its association with the presence of CAD still remain controversial. The aim of this study was to assess the association between alcohol consumption and the presence of CAD as detected by coronary CT angiography (CTA).

### METHOD AND MATERIALS

Consecutive patients referred for coronary CTA were enrolled in our study. We excluded patients with history of stroke, acute myocardial infarction or coronary revascularization. The weekly alcohol consumption was registered using a questionnaire. Alcohol units were calculated as follows: 1 unit equals 2 dl beer or 1 dl wine or 4 cl spirit. Based on the presence of any plaque on coronary CTA we classified the patients in CAD and no CAD groups.

### RESULTS

In total, 1,925 patients were enrolled (mean age  $57.3 \pm 16.1$  years, females 43.1%). Atherosclerotic plaque was present in at least one coronary segment in 74.3% of the patients. Alcohol consumption was reported by 37.3% of the patients with a median of 6.7 (IQR:3.3;10.8, range:0.2-66.7) units weekly. Using univariate analysis to compare CAD and no CAD patients we found significant difference regarding cardiovascular risk factors ( $p < 0.001$ ) but no difference in alcohol consumption ( $p = 0.35$ ). After adjusting for cardiovascular risk factors with logistic regression we found no association between alcohol intake and the presence of CAD (OR:1.00;CI:0.98-1.02; $p = 0.76$ ). We performed a secondary analysis to assess the relationship between alcohol consumption and CAD among no drinkers and light drinkers (maximum 14 units per week; 82.7% of alcohol drinkers) and found no association (OR: 1.02;CI:0.98-1.06; $p = 0.33$ ). Furthermore, we analyzed the effect of different alcohol types (wine, beer, spirit) on the presence of CAD, but no relationship was found.

### CONCLUSION

Our study suggests that the amount of weekly alcohol consumption does not show association with the presence of CAD. We did not detect any association between alcohol intake and CAD among light drinkers either. In addition, we did not find any association between the different alcohol types and the presence of coronary atherosclerosis.

### CLINICAL RELEVANCE/APPLICATION

It seems that there is no association between light to moderate alcohol consumption and coronary artery disease.