## 94. Impact of Lipoprotein (a) and Atherogenic Index of Plasma on Coronary Artery Calcification in Patients Younger Than 65 Years With Low LDL-C

Hae Won Jung, Daegu Catholic University Medical Center, Daegu, Republic of Korea

### Body

**Background:** Lipoprotein (a) (Lp (a)) and atherogenic index of plasma (AIP) have been reported as predictive markers of coronary artery calcification. However, the effect of Lp (a) and AIP on coronary artery calcification in relatively young patients with low low-density lipoprotein cholesterol (LDL-C) is not well known. Therefore, we performed this study to evaluate the effect of Lp (a) and AIP on coronary artery calcification, in patients younger than 65 years with low LDL-C (LDL-C <130 mg/dL).

**Methods:** This study included 604 statin naive patients <65 years with low LDL-C levels who underwent coronary computed tomographic angiography. We performed multivariate logistic regression analysis to evaluate the risk factors of coronary artery calcium score (CACS)>0, CACS≥ 400, ≥90th coronary calcium percentile, respectively.

**Results:** The mean age of the patients was 55.0 ± 7.9 years and the mean LDL-C level of patients was 93.3 ± 22.5 mg/dL. Multivariate regression analysis showed that age, male, diabetes, hypertension, Lp (a), AIP were independent predictors for CAS>0\. Age, male, diabetes were independent predictors for CAS>400\. Diabetes, AIP were independent predictors for ≥90th coronary calcium percentile (all $p < 0.05$).

**Conclusion:** Both Lp(a) and AIP were independent predictors of CACS>0 and AIP was an independent predictor of the ≥90th coronary calcium percentile. Both Lp(a) and AIP did not predict CACS≥400.

**Clinical Implications:** My study will help enable cardiovascular clinicians to focus on TG and HDL-C as well as LDL-C to prevent the progression of coronary artery calcification.