



## Ischemic Heart Disease

### DISTRIBUTION OF CORONARY ATHEROSCLEROSIS BY SEX IN ASYMPTOMATIC U.S POPULATION USING QUANTITATIVE CT PLAQUE ANALYSIS: RESULTS FROM THE MIAMI HEART STUDY.

Poster Contributions  
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**Background:** There exists substantial disparities in cardiovascular health outcomes between sexes in asymptomatic individuals with subclinical atherosclerosis. We evaluated the distribution of quantitative coronary plaque by sex utilizing Miami heart study (MHS) cohort.

**Methods:** This retrospective population-based study included asymptomatic individuals from the MHS cohort. Quantitative coronary plaque analysis was conducted using automated software (Cleerly, NY, NY) on patients who underwent CT angiography. Plaque volumes (PV), measured in cubic millimeters, were reported for each of the plaque subtype. The distribution of plaque type was evaluated by sex and age quartiles.

**Results:** Of 2,362 participants, average age was  $53.4 \pm 6.7$ , 50% were men, and 85% were white. Diabetes mellitus was similar between sexes, but men had a higher prevalence of hyperlipidemia and hypertension. Men had a higher median (IQR) non-calcified plaque (NCP) volume, 66 (26, 142) versus 26 (7, 64)  $\text{mm}^3$  ( $p < 0.0001$ ), calcified plaque (CP) 4 (0, 25) versus 3 (0, 14)  $\text{mm}^3$  ( $p < 0.0001$ ) and total PV 80 (31, 180) versus 34 (9, 84)  $\text{mm}^3$  compared to women. Percent LD-NCP and positive remodeling were also higher in men compared to women ( $P < 0.0001$ ).

**Conclusion:** In the MHS cohort, men exhibit a greater plaque burden and a higher prevalence of high-risk plaque characteristics. This may be explained by the variance in risk factors. However, future research should explore the sex-specific relationship between plaque volume and clinical outcomes.

