**Results** According to the International Diabetes Federation definition, MS prevalence was 29.7% in SAI without CAD. 26% had HDL inflammatory index ≥1 suggesting Dys-HDL. Six novel APOA-1 gene polymorphisms were discovered and on logistic regression, three single nucleotide peptides-SNP (C2, G3, and G5) were found to be significantly associated with MS (p = 0.397, p = 0.586, p = 0.054). On multi-variate analysis, MS was significantly associated with BMI >23 (p = 0.005), Apo-A-I levels (p = 0.01), and Lp[a] (p < 0.0001).

**Conclusion** SAI is known to be a disproportionately high risk for CAD that may be attributed to a high burden for MS. There is need to explore and understand non-traditional risk factors with special focus to Dys-HDL, knowing that SAI has low HDL levels. Large prospective studies are needed to further strengthen current study results.

**References**

