Abstract No. **13**
Category: **Prevention**
Title: **APOL1 Gene Variants and Risk for Cardiovascular Disease**
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Abstract:

Background: Patients with end-stage renal disease (ESRD) has high cardiovascular risk (CVR). The APOL1 gene is located at chromosome 22 and encodes the protein Apolipoprotein L1, which is expressed in the renal and systemic vasculature. In afrodescendent population, variants in the APOL1 has been proposed as a cardiovascular risk indicator but results are incosistent, not so in chronic kidney disease.

Methods: Prospective cohort of Afro-descendant patients with ESRD in waitlist or recipients of kidney transplant. We randomly sequenced APOL1 in 102 patients in 2017 and followed until 2019. The variants were analyzed by a recessive model, high-risk status (HR) was defined as the presence of 2 risk alleles (G1/G1, G2/G2 or G1/G2) and low-risk status (LR) as having 1 or 0 risk variants (G1/G0, G2/G0 G0/G0). Clinical data, events and CVR factors were collected.

Results: There were 37.2% APOL1 HR genotypes, age 46 and 62.7% LR with 49 years old. For HR and LR, there were 60.5 vs 54.7% males, medical history is shown in table 1. There was no significant association between APOL1 genotypes and the adjusted Framingham Score. There were no cardiovascular events, and 3 deaths in follow-up. 1 in HR group due to sepsis and 2 in LR group, 1 by sepsis and 1 by acute heart failure.

Conclusion: in afrodescendent patients with ESRD APOL1 HR status wasn´t associated with cardiovascular risk profile and metabolic disturbances. More follow up and number of patients is required for determining cardiovascular events associations in the future