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mutations (OR 2.682, 95%CI 1.152-6.244, p=0.022), higher prevalence of high tertiles of Gensini, SYNTAX and Jeopardy score, and CAC scores compared with those without. During a median of 3.75 years follow-up, patients with TX/CA were at a significantly greater risk of CVE (multivariate adjusted hazard ratio [HR] 2.98, 95% confidence interval [CI] 1.01–8.61, p=0.031).

Conclusions: TX/CA were independently associated with coronary severity, coronary calcification and worse outcomes, suggesting that detecting TX/CA may be useful indicators for risk stratification in patients with HeFH.

**Methods:** From 355 studies, 116 were selected. Data were standardized and Cluster Analysis was applied to group the cases according to the 7 selected biomarkers: Total Cholesterol; Triacylglycerol; High Density Lipoprotein cholesterol; Low Density Lipoprotein cholesterol; Total Antioxidant Capacity; Malondialdehyde and Hsc- Reactive Protein.

**Results:** It was observed a improvement of all 7 biomarkers among the treatments. Based on dendrogram, Group II, showed the best association among the biomarkers and also observed a reduction of oxidized LDL-C.

**Conclusions:** This study applied multivariate statistical tools to analyze changes in biomarkers in humans, involving interventions to promote cardiovascular protection, aiming to contribute to defining reference values that could be further used to improve the current scores to stratify the risk of patients.

**Figures:**

**Figure 1:** (A) H2O2 production by PBMCs and (B) arterial stiffness evaluated by ratio t/f after treatment (before treatment).