

baseline differences in LVMI (ANCOVA) that included an interaction term between baseline LVMI sub-group and treatment. The effect of empagliflozin on 6-month change in LVMI was significantly different between patients with a baseline LVMI ≥ 60 g/m² and those whose LVMI was < 60 g/m² (Pinteraction=0.0064). The adjusted difference between those randomized to empagliflozin and those assigned placebo was -0.46 g/m² (95% CI: -3.44 g/m², 2.52 g/m², P=0.76) and -7.26 g/m² (95% CI: -11.40 g/m², -3.12 g/m², P=0.0011) in the LVMI < 60 g/m² and LVMI ≥ 60 g/m² subgroups, respectively. These associations persisted following multivariate adjustment for baseline characteristics with adjusted differences of 0.59 g/m² (95% CI: -3.01 g/m², 4.19 g/m², P=0.74) in the LVMI < 60 g/m² group and -7.03 g/m² (95% CI: -11.06 g/m², -2.99 g/m², P=0.001) in the LVMI ≥ 60 g/m² group (Pinteraction=0.0054). No significant associations were found between baseline LVMI and 6-month change in LV end systolic volume-indexed (Pinteraction=0.086), LV end diastolic volume-indexed (Pinteraction=0.34), or LV ejection fraction (Pinteraction=0.15).

CONCLUSION: Patients with larger LVMI at baseline experienced substantially greater cardiac reverse remodeling benefits with empagliflozin. The effect baseline LV mass has on the benefits derivable from SGLT2i therapies warrants further investigation.

P039
ROLE OF SEX AND GENDER IN DEVELOPMENT OF METABOLIC SYNDROME: A PROSPECTIVE COHORT STUDY

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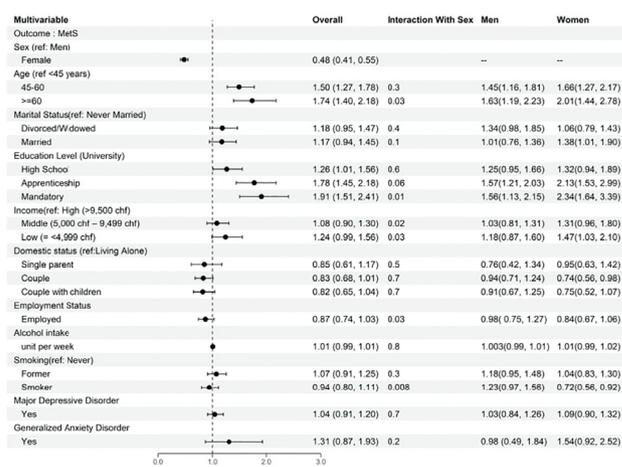
BACKGROUND: The burden of metabolic syndrome (MetS) and its components has been increasing mainly amongst male individuals. Nevertheless, clinical outcomes related to MetS (i.e., cardiovascular diseases), are worse among females. Whether these sex differences in the components and sequelae of MetS are influenced by psycho-socio-cultural factors (gender) is a matter of debate. Therefore, the purpose of this study was to determine the association between gender-related factors and the development of MetS, and to assess if the magnitude of the associations vary by sex.

METHODS AND RESULTS: Data from the ColaUS/PsyColaUS study, a prospective population-based cohort of 6,734 middle-aged participants in Lausanne (Switzerland) (2003-2006) were used. The primary endpoint was the development of MetS as defined by the Adult Treatment Panel III of the National Cholesterol Education Program. Multivariable models were estimated using logistic regression to assess the association between gender-related factors and the development of MetS. Two-way interactions between sex and age and gender-related factors were also tested. Among 5,195 participants without MetS (mean age=51.3±10.6, 56.1% females), 27.9% developed MetS during a mean follow-up of 10.9 years. Female sex

(OR:0.48, 95%CI:0.41- 0.55) was associated with decreased risk of developing MetS. Conversely, older age, educational attainment less than university, and low income were associated with an increased risk of developing MetS. Statistically significant interaction between sex and strata of age, education, income, smoking, and employment were identified. The reduced risk of MetS in females was attenuated in the lowest education, income, and advanced age strata. However, females who smoke and reported being employed demonstrated increased risk of METS. Conversely smoking and unemployment were significant risk factors for MetS development among male adults.

CONCLUSION: Gender-related factors such as income level and educational attainment play a greater role in the development of MetS in females. These factors represent novel modifiable targets for implementation of sex & gender specific strategies to realize health equity for all people.

Association between Gender-related Factors and risk of developing MetS



P040
TEMPORAL TRENDS OF THE PREVALENCE OF ISCHEMIA WITH NON-OBSTRUCTIVE CORONARY ARTERY DISEASE (INOCA) IN ALBERTA, CANADA

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BACKGROUND: Ischemia with non-obstructive coronary artery disease (INOCA) is a common heart condition often overlooked in cardiology practice. There is still under-recognition of this condition, but it is unclear if the referral patterns for invasive testing have changed. We aimed to determine if the prevalence of patients diagnosed with INOCA through invasive testing has changed over time.

METHODS AND RESULTS: A population-based cohort of patients who had their first cardiac angiography for a chest pain syndrome in Alberta between 1999 and 2019 was extracted retrospectively from the Alberta Provincial Project for Outcome Assessment in Coronary Heart Disease (APPROACH©) database. A temporal trend analysis was performed to compare patients with INOCA to obstructive coronary artery disease (CAD) and investigate the ratios of these two populations