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Project Title

Sex-specific environmental and genetic determinants of COPD in middle-aged and older Canadian adults: An analysis of CLSA data

Project Summary

Chronic Obstructive Pulmonary Disease (COPD) is a common respiratory disease in middle-aged and older adults. Asthma-COPD overlap (ACO) was recently defined and it is known to have more frequent and severe airflow obstruction, frequent hospitalization and medication usage. Population studies showed the prevalence of COPD and ACO is greater in females than in males. The underlying causes and sex differences of COPD and ACO are not fully understood. It is believed that both environmental and genetic factors play an important role. This study will investigate the similarities and differences between males and females regarding the complex interplay between environmental and genetic risk factors for COPD and ACO, respectively.

Keywords

Chronic Obstructive Pulmonary Disease (COPD), Asthma-COPD overlap (ACO), Genome-Wide Association Study (GWAS), Gene*Environment Interaction, Gene*Gene interaction