糖尿病治療薬は心臓の構造を改善する (LBS.05 Abstract 19332)

EMPA-HEART：エンパグリフロジンは早期および臨床的に有意なリバースリモデリングを促進する

EMPA-HEART: Empagliflozin promotes early and clinically significant reverse remodeling

糖尿病治療薬エンパグリフロジンは、心疾患を有する2型糖尿病患者の心臓の構造を改善し得る重要な効果を有する、とAmerican Heart Association's Scientific Sessions 2018で発表された。EMPA-HEART CardioLink-6試験は、心血管疾患歴を有する2型糖尿病患者の左室構造および機能へのエンパグリフロジンの効果をMRI検査を用いて6か月間調査した、初めてのランダム化、二重盲検、並行群間試験である。エンパグリフロジンを投与されると、心臓MRIで評価した左室重量が有意に減少した。

Full Text

A study led by St. Michael's Hospital researchers, and presented at a late-breaker session at the American Heart Association meeting in Chicago, indicates that the diabetes medication empagliflozin has important effects that can improve cardiac structure in people with Type 2 diabetes who also have heart disease.

"Empagliflozin is used to reduce glucose in diabetes patients, but it also has profound cardiovascular benefits," said Dr. Subodh Verma, cardiac surgeon-scientist and director of the CardioLink platform at the Keenan Research Centre for Biomedical Science of St. Michael's Hospital, Toronto, Canada.

"The reasons why this medication results in profound reductions in death and heart failure are largely unknown," added Dr. Verma, who led the EMPA-HEART CardioLink-6 trial. "And whether it can directly and favorably remodel the heart has been an important unanswered question."

EMPA-HEART is the first randomized, double-blind, parallel group study to investigate the effect of empagliflozin on the structure and function of the left ventricle in individuals with Type 2 diabetes and a history of cardiovascular disease, using MRI testing over a six-month period.

The study found that when the subjects were given empagliflozin, it caused a significant regression in left ventricular mass index. The left ventricular mass index was assessed using cardiac MRI, the gold standard method for evaluating heart function.

The EMPA-HEART team included many physicians and scientists from St. Michael's, including Dr. Kim Connelly, Dr. Andrew Yan, Dr. David Mazer, Dr. David Fitchett, Dr. Peter Juni, director of the Applied Health Research Centre (AHRC), and Adrian Quan, research manager the CardioLink platform. It is the sixth CardioLink clinical trial. The late-breaker sessions are used for presentations deemed too important to wait for the next AHA meeting.

"The results are truly impressive, since they were observed on top of excellent standard of care and seen within a very short period of time," said Dr. Connelly, one of the co-principal investigators of the EMPA-HEART study. Dr. Mazer added that the data "provide important clues as to how this medication is working, and how it may prevent heart failure in people with Type 2 diabetes."

Boehringer Ingelheim, a pharmaceutical company that manufactures empagliflozin, provided an unrestricted grant to conduct the EMPA-HEART study and the empagliflozin compound used in the study.