# 心疾患を有する糖尿病患者においてバイパス手術は血管形成術よりも優れている (LBS.06 Abstract 18609)

## FREEDOM試験追跡結果:糖尿病および進行した心疾患を有する患者はバイパス手術を施行された方が血管形成術を施行されるよりも生存期間が長い

FREEDOM Follow-On: Patient with diabetes and advanced heart disease live longer after bypass surgery than angioplasty

糖尿病および多枝冠動脈疾患を有し、冠動脈バイパス術(CABG)で治療された患者は薬剤溶出性ステントを用いた血管形成術(PCI)で治療された同様の患者に比べ生存期間が3年長かった。8年間追跡された患者において、総死亡率はPCI群においてCABG群よりも有意に高かった(24.3% vs. 18.3%、P=0.01)。65歳未満のCABG群患者が、8年後もより多く生存していた。このFREEDOM試験の結果は、American Heart Association Scientific Sessions 2018で発表され、同時に*Journal of the American College of Cardiology*に掲載された。

## Full Text

Patients who have diabetes and multivessel coronary artery disease that is treated with coronary-artery bypass grafting (CABG) survived about three years longer than similar patients who were treated with percutaneous coronary intervention with drug-eluting stents (PCI), researchers from the Icahn School of Medicine at Mount Sinai have found.

The mortality rate from all causes was significantly higher in the PCI group (24.31 percent) compared with the CABG group (18.3 percent) among 943 patients who were followed for eight years. More patients under 65 from the CABG group remained alive after eight years. This is the first study to demonstrate the long-term mortality benefit of CABG compared with PCI, a minimally invasive procedure commonly known as angioplasty, and to show that the greatest benefit is in patients under 65 years old.

Results of the FREEDOM Follow-on Study were presented as a late breaker at the American Heart Association Annual Scientific Sessions on Sunday, November 11, in Chicago and published simultaneously in the *Journal of the American College of Cardiology*.

The FREEDOM Follow-on Study is the final long-term follow-up report of the landmark FREEDOM (Future Revascularization Evaluation in Patients with Diabetes Mellitus: Optimal Management of Multivessel Disease) trial. After completion of the original FREEDOM trial in 2012, 25 international centers participated in the follow-on study.

Heart disease is the leading cause of morbidity and mortality in individuals with Type 2 diabetes.

"Treating people with diabetes and heart disease presents unique challenges due to increased risk for death, heart attack, and stroke," said the study's principal investigator, Valentin Fuster, MD, PhD, Director, Mount Sinai Heart, and Physician-in-Chief of The Mount Sinai Hospital. "The FREEDOM trial and Follow-on Study firmly establishes a standard of care for this high-risk population."

Although further advances in PCI have been made since the original FREEDOM trial, the data support CABG over PCI in patients with stable coronary artery disease and diabetes.

"These findings provide clear evidence that CABG plus standard medical therapy is the optimal treatment path for patients with diabetes and extensive coronary disease," said Michael Farkouh, MD, the Peter Munk Chair in Multinational Clinical Trials at the University of Toronto, adjunct scientist at the Icahn School of Medicine at Mount Sinai, and the co-principal investigator of the FREEDOM trial and FREEDOM Follow-on Study.

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Other Mount Sinai researchers who participated in the study included George Dangas, MD, PhD, Professor of Medicine (Cardiology) and Surgery at the Icahn School of Medicine and Director of Cardiovascular Innovation at the Zena and Michael A. Wiener Cardiovascular Institute, and Samin Sharma, MD, Director of Clinical and Interventional Cardiology, The Mount Sinai Hospital. Other institutions involved in this research include the University of Toronto.