

**CORONARY ARTERY DISEASE
FREEDOM TRIAL
RESULTS PUBLISHED**

Coronary artery disease is one of many complications arising in patients with diabetes mellitus. Two competing strategies, CABG surgery and percutaneous coronary intervention (PCI), are routinely used to treat multivessel coronary artery disease in these patients. Previous comparisons between these two methods have either excluded drug-eluting stents (DES) or have been performed with insufficient numbers of patients. At the AHA 2012 Scientific Sessions, Valentin Fuster and the FREEDOM trial researchers reported the findings from a large, randomized study in which CABG surgery was compared with PCI with DES in patients with diabetes.

In the 1995 BARI trial, patients with diabetes survived for longer when CABG surgery was used instead of PCI. Since then, numerous changes in stent design have occurred, most notably the development of stents that elute paclitaxel or sirolimus. Increasing numbers of patients with diabetes have been treated with DES without sufficient data on the effectiveness of this treatment.

The FREEDOM researchers randomly allocated 1,900 patients, and the median duration of follow-up was 3.8 years. Patients treated with CABG surgery had lower rates of myocardial infarction and death from any cause than those undergoing PCI, at both 2 years and 5 years after intervention (6.0% vs 13.9%, and 10.9% vs 16.3%, respectively). Repeat revascularization 1 year after the initial treatment was more common with PCI than with CABG surgery (12.6% vs 4.8%). However, a higher incidence of stroke occurred with CABG surgery than with PCI over the first 5 years (5.2% vs 2.4%), particularly in the first 30 days after intervention.

The difference in mortality just reached statistical significance, and the “anticipated number of patients to be included was 2,400 but was amended to 1,900 based on the event rate,” notes Dr Iwan van der Horst from the University Medical Center Groningen, The Netherlands, who was not involved in the study. In addition, “myocardial infarction had a wide definition and included the need for repeat coronary artery intervention”. Together with the cost-effectiveness analysis of CABG surgery vs PCI, also presented at the AHA meeting by Elizabeth Magnuson, these data suggest that CABG surgery could become the intervention of choice for patients with diabetes.

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