A new study published in the October 16 issue of JAMA reveals that coronary artery bypass graft surgery treatment for diabetes mellitus patients suffering from multivessel coronary artery disease provided a slightly improved health status and quality of life between 6 months and 2 years. This is compared to treatment with drug-eluting stents, however after that period of time the difference disappeared.

Past research has shown that for this specific patient category coronary artery bypass graft (CABG) surgery is generally preferred over percutaneous coronary intervention (PCI; procedures such as balloon angioplasty or stent placement used to open narrowed coronary arteries), however data used in these studies dates back to when angioplasty and stents were different. The recently conducted FREEDOM trial also concerned this specific patient group and demonstrated that although CABG surgery increased the risk of stroke when compared with PCI using drug-eluting stents, it also proved that this treatment lowered the death and heart attack rate. It is unknown whether any differences in health status are evaluated from the patient's perspective.

A team at Saint Luke's Mid America Heart Institute, Kansas City, led by Mouin S. Abdallah, M.D., M.Sc, carried out a substudy of the FREEDOM trial involving 18 countries in order to evaluate functional status and quality of life. For a period of five years, ending in 2010, almost 2000 patients with diabetes mellitus and coronary artery disease in more than one artery were observed. At random, the initial procedure was either CABG surgery for 947 patients or PCI for the other 953.

The 2-year follow-up assessment showed that measurements of angina frequency, physical limitations, and quality-of-life indicated greater benefit of CABG compared to PCI. After that period, both revascularization procedures provided overall similar patient-reported outcomes, the authors write.

The results of this study propose that CABG could be the preferred choice of initial revascularisation treatment for this patient category. “Given the increased rate of stroke, as well as the well-recognized longer recovery period with CABG surgery, however, some patients who do not wish to face these acute risks may still choose the less invasive PCI strategy. For such patients, our study provides reassurance that there are not major differences in long-term health status and quality of life between the 2 treatment strategies. Nonetheless, it is important for patients to recognize that the similar late quality-of-life outcomes with PCI and CABG in the FREEDOM trial were achieved with higher rates of antianginal medication use and the need for more frequent repeat revascularization procedures among the PCI group.”