Coronary revascularization in diabetes- bypass surgery or stenting?

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Coronary bypass surgery and percutaneous coronary stenting are both viable techniques to revascularize diabetic subjects with coronary artery disease. However the relative advantages of these two procedures were not known till recent prospective trials were reported.

In the Bypass versus Angioplasty Revascularization Investigation-2Diabetes (BARI-2D) trial patients with diabetes and multi-vessel coronary disease were assigned to Percutaneous Coronary Intervention (PCI) or Coronary bypass Graft (CABG) surgery at the discretion of the cardiologist. These groups were then randomized to either medical therapy or intervention. The study had a 2X2 factorial design where patients were also randomized to insulin provision or sensitization. At the end of the study the lowest event rate was found in the group that got prompt CABG and insulin sensitization.

In the freedom trial 1900 patients with diabetes and multi-vessel coronary disease were randomized to PCI or CABG. At 30 months median follow up, there were fewer primary events (death, myocardial infarction and stroke) in the CABG arm. All-cause mortality was lower in the CABG arm.

In the VA-CARDS trial 198 patients with diabetes and severe coronary disease were randomized to PCI or CABG. At 2 years follow up CABG group had lower mortality although the primary combined endpoint of death and infarction was not different.

These studies show that for diabetics with multi-vessel disease the best option is prompt CABG with optimal medical therapy.

Biography
Masoor Kamalesh trained at Beth Israel Deaconess Hospital, Harvard Medical School for cardiology and is currently the Chief of cardiology at VA medical center Indianapolis, Indiana University. His research interest is in Diabetes and Heart Disease. He has over 100 abstracts, reviews and original publications and has been funded by the Department of Veterans Affairs for his research.

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