Velazquez et al. are to be congratulated for publishing this follow up Surgical Treatment for Ischemic Heart Failure Extension Study (STICHES) which clearly demonstrates that coronary artery bypass grafting (CABG) renders survival benefit to patients with ischemic heart disease with left ventricular ejection fraction of 35% or less (1). The Surgical Treatment for Ischemic Heart Failure (STICH) trial randomized a total of 1,212 patients (CABG, 610 patients vs. medical-therapy 602 patients), and all-cause mortality was evaluated as the primary outcome. When STICH trial was initially reported in 2011 with a mean follow-up period of 56 months, there seemed to be a trend towards survival benefit for CABG [hazard ratio (HR) 0.86 (0.72–1.04), P=0.12]. However, CABG was associated with significantly increased mortality at 30 days [HR 3.19 (1.35–7.52), P=0.008] (2). Therefore, it created some conflict in the minds of providers and patients alike as to how to justify assuming such concrete operative mortality for a potential long-term benefit which had not been statistically proven. Today, such strife seems to be justified no longer for the much needed answer is provided by STICHES. The comparative absolute survival benefit of CABG is 7% [HR 0.84 (0.73–0.97), P=0.02] at 9.8 years, and it translates to having a life saved per every 14 CABG procedures performed (1). The survival benefit is even more pronounced when the results are compared based on as treated rather than as randomized.

It is important to be mindful of the study design and its findings as we treat patients every day in the real world. In STICH trial, patients with LM stenosis of greater than 50% or those with Canadian Cardiovascular Society angina class of III or IV were not included for there existed no equipoise between CABG vs. medical-therapy alone (2). Also a significant fraction of patients (19.8% of medical-therapy group) crossed over and underwent CABG for various indications (progressive symptoms, acute decompensation, patient or family’s decision, and physician’s decision) (1). Therefore, CABG should be considered to be the cornerstone therapy for its long-lasting survival benefit in treating patients with ischemic heart disease. Obviously, CABG can incur operative mortality in some patients. Those with high Society of Thoracic Surgeons (STS) risk profiles should be thoughtfully managed, such as optimizing preoperatively and even considering alternative therapies such as heart transplant and/or durable implantable left ventricular assist devices. Nevertheless, in the vast majority of patients with ischemic heart disease with or without cardiomyopathy, surgical revascularization provides a durable survival benefit.

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