myocardial infarction (MI) and clinical outcomes (3). Unless strict cardioprotective criteria were used, it is indeed possible that various surgeons from various centers used different cardioprotective strategies: ventricular fibrillation versus ischemia, crystalloid versus blood cardioplegia, antegrade versus retrograde delivery of cardioplegia and warm versus cold cardioplegia (3). In addition, the methods fail to mention whether off-pump CABG was utilized, and if so, for which type of patients. Although initial results of off-pump CABG in low-risk patients is encouraging, patients with high preoperative risk factors (octogenarians, recent MI, reoperative CABG, left ventricular ejection fraction <40%, previous stroke) seem to derive marked advantages from the off-pump technique (4). Prospective randomized trials with longitudinal clinical and angiographic follow-up are needed to better define the real advantages and limits of this new clinical strategy in all patients, especially in high-risk groups. Preliminary data at midterm follow-up is very encouraging for coronary revascularization on the beating heart (5–8).

Finally, if these studies are further corroborated, then the surgical strategy itself (beating heart versus traditional CABG using cardiopulmonary bypass) may prove to be an additional factor in comparisons of revascularization methods in high-risk patients. We commend Morrison et al. (1) for conducting a very important and timely study.

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REFERENCES


Percutaneous Revascularization Versus Beating Heart CABG or CABG With Cardiopulmonary Bypass in Patients With Refractory Myocardial Ischemia

Morrison et al. (1) recently reported the results of a very important multicenter randomized trial comparing percutaneous coronary intervention (PCI) versus coronary artery bypass graft surgery (CABG) for patients with refractory myocardial ischemia and risk factors for adverse outcomes with CABG. It clearly appears that PCI is an alternative to CABG for patients with medically refractory myocardial ischemia at high risk for adverse outcomes with CABG. Incidentally, the study was initiated in February 1995 when multivessel beating heart CABG via sternotomy was popularized by Buffalo et al. (2). The study by Morrison et al. (1) does not address the techniques used to accomplish CABG in this study. If CABG was performed using cardiopulmonary bypass, then the study fails to mention the cardioprotective strategies used, as this may be an important factor in the rates of perioperative