Letter to the Editor

Clinical implication of coronary artery bypass graft with surgical ventricular reconstruction in patients with left ventricular dysfunction in the current clinical practice

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The therapeutic strategy for the patients with chronic myocardial infarction and severe left ventricular dysfunction remains controversial. Yang and colleagues compared clinical outcomes between coronary artery bypass grafting (CABG) and surgical ventricular reconstruction (SVR) and isolated CABG without SVR. They showed that CABG + SVR was associated with a lower cumulative incidence of cardiovascular events than isolated CABG (1). Several concerns have been raised.

In the literature to date, the clinical benefit of CABG + SVR over isolated CABG remains controversial. In a large randomized control trial, CABG + SVR was not associated with a greater reduction in the rate of death or cardiac hospitalization than isolated CABG (2). How do the authors explain this discrepancy? Optimal patient selection may be a key to successful CABG + SVR surgery. Several risk models have been proposed to predict postoperative survival (3).

In their study, some patients did not receive concomitant SVR but received CABG alone, despite being eligible for CABG + SVR (1). What was the indication for isolated CABG at the authors' institution? Although baseline characteristics were not statistically different between the two groups, statistical attempts to adjust for the potential confounders should have been considered, including propensity score matching or multivariable analysis.

In their study, it appears that all isolated CABG was performed under on-pump (1). On-pump beating-heart CABG and off-pump CABG are recently-introduced promising alternatives to on-pump CABG, especially in patients with left ventricular dysfunction (4). How did the authors choose the surgical procedure for isolated CABG?

Optimal medical therapy is another key to successful reverse remodeling (5). Which medications did the patients in their study receive after the surgery? Their study was carried out between 2010 and 2013 (1). Currently, several new anti-heart failure medications are clinically available, including SGLT2 inhibitors, sacubitril/valsartan, and vericiguat. How do the authors consider the impact of their findings on the current clinical practice?

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Footnote

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Ethical Statement: The authors are accountable for all

aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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