Doctor, I say yes to a good old coronary bypass operation and no to your new blood pump!

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Central Message
Coronary artery bypass grafting surgery remains a good treatment option to consider for selected patients with end-stage heart failure.

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associated procedures (mitral valve [MV] repair or replacement and left ventricular reconstruction). From the Surgical Treatment for Ischemic Heart Failure Extended Study (STICHES) trial, Velazquez and associates concluded that after 9.8 years of follow-up CABG was associated with more favorable results than medical therapy alone in patients with heart failure, left ventricular dysfunction, and coronary artery disease. The study of Kawajiri and colleagues shows that high-risk CABG, although associated with a higher in-hospital mortality when combined with MV repair or replacement, results in 5- and 10-year survivals similar to those associated with heart transplantation and destination left ventricular assist device treatment.

In our mind, standard and isolated CABG surgery should be offered to patients with end-stage heart failure who show good target coronary arteries to bypass, ideally with two internal thoracic arteries, when significant myocardial viability is determined on positron emission tomographic scan (Figure 1). CABG associated with MV repair or replacement carries a higher in-hospital mortality, averaging 11% in the series of Kawajiri and colleagues. Maltais and coworkers reported 30-day mortality averaging 7% in a series of patients undergoing CABG with MV repair or replacement for end-stage ischemic cardiomyopathy. Poor coronary targets and the absence of myocardial viability on noninvasive testing should incline these patients toward long-term left ventricular assist device therapy. Isolated or complex CABG surgery, including MV repair or replacement, should only be offered to patients with end-stage heart failure if it can be performed with low in-hospital mortality, probably lower than 7%.

References