

# Study compares survival following different heart disease treatments in patients with ESRD

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For patients with end stage renal disease (ESRD) on dialysis who also must be treated for heart disease, stents provide the best one-year survival compared with other revascularization treatments, but bypass surgery provides the best long-term survival, according to a paper being presented at the American Society of Nephrology's 41st Annual Meeting and Scientific Exposition in Philadelphia, Pennsylvania.

Cardiovascular disease such as coronary artery disease, which is characterized by reduced blood flow to the heart, is the single largest cause of death in patients with kidney disease who are on dialysis. Therapies used to treat these patients include heart bypass surgery and stents, or scaffolds placed into narrowed coronary arteries. Many stents used today are drug-eluting, meaning they slowly release drugs that block clots from forming.

Despite the widespread use of these therapies, it is unclear which is best for treating patients with coronary artery disease, let alone heart disease patients who also have kidney disease. Because very few studies have addressed this issue, Charles Herzog, MD, and Craig Solid, MS, of the Cardiovascular Special Studies Center at the United States Renal Data System (USRDS) in Minneapolis, Minnesota, compared the survival of dialysis patients undergoing these different revascularization procedures.

The investigators analyzed information housed in the USRDS database, where they found data on 13,066 dialysis patients treated with coronary bypass surgery, non-drug-eluting stents, or drug-eluting stents from 2003-2005. These were patients undergoing their first coronary revascularization procedure after developing advanced kidney disease. There were 3,665

patients receiving coronary bypass surgery, 6,164 receiving drug-eluting stents, and 3,237 receiving non-drug-eluting stents.

The study revealed that drug-eluting stents were associated with the best one-year survival, but long-term survival was best in patients receiving bypass surgery. The survival advantage of surgery was increased with greater numbers of arteries bypassed.

This study suggests that there is not a simple answer to the question of which revascularization procedure is best in dialysis patients. "It is conceivable that different patients might view this information, when presented to them by their counseling physician regarding treatment options, in different ways," said Dr. Herzog. For example, if patients wish to maximize their chance of a better short-term result with fewer in-hospital risks, they may choose drug-eluting stents. On the other hand, some patients may choose to maximize their long-term survival while risking higher in-hospital complications and worse short-term survival.

Source: American Society of Nephrology

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