

Is revascularization necessary for patients with low ejection fraction?

 **Vjekoslav Radeljić***

University Hospital Centre
„Sestre milosrdnice“, Zagreb,
Croatia

KEYWORDS: low ejection fraction, coronary artery bypass graft, percutaneous coronary intervention, cardiomyopathy.

CITATION: *Cardiol Croat.* 2023;18(11-12):286. | <https://doi.org/10.15836/ccar2023.286>

***ADDRESS FOR CORRESPONDENCE:** Vjekoslav Radeljić, Klinički bolnički centar Sestre milosrdnice, Vinogradska 29, HR-10000 Zagreb, Croatia. / Phone: +385-91-4060-400 / E-mail: vjekoslav.radeljic@gmail.com

ORCID: Vjekoslav Radeljić, <https://orcid.org/0000-0003-2471-4035>

Both non-ischemic cardiomyopathy and extensive atherosclerosis are common diseases. Differentiating between causal and bystander coronary artery disease (CAD) can occasionally be quite difficult. Although treating CAD in patients with severe cardiomyopathy makes a lot of sense, there are currently no reliable data to back it up. Separate studies on surgical and percutaneous revascularization have been conducted. It is challenging to compare one revascularization technique to another because those trials were carried out at various points in history and with patients who varied in their patient characteristics. The most current large-scale trial investigating the impact of coronary artery bypass graft (CABG) surgery on prognosis in ischemic heart failure is called the Surgical Treatment for Ischemic Heart Failure (STICH) trial. The rate of all-cause death did not significantly differ after a five-year follow-up period. Only after a lengthy 9.8-year follow-up period did CABG demonstrate a benefit in terms of death rate. The low incidence of ICD implantation, younger patient age than in most other comparable trials, low ICD implantation rate, and absence of contemporary therapy were just a few of the trial's severe flaws. All the aforementioned may have had a significant impact on the trial's outcome. The REVIVED-BCIS2 investigated possible other advantages that PCI might have over conventional medical treatment.¹ This well-designed multicentric trial randomly assigned individuals to receive either PCI or the best medical care. There was no difference in death or hospitalization rates between these two groups after 3.4 years of follow-up. These two studies serve as the primary source of evidence supporting revascularization in patients with poor ejection fractions. Although trials had similar patient populations, there were still big disparities. We can infer from these two trials that patients won't benefit from either of these two treatments in the initial stages up to five years following therapy. After five years, with modern medical therapy and an ICD, it is still questionable if any benefit might be realized.

RECEIVED:
September 9, 2023

ACCEPTED:
September 27, 2023



LITERATURE

1. Clinical Trial Results. Dr. Divaka Perera and Dr. C. Michael Gibson Discuss: Effect of Myocardial Viability, Percutaneous Coronary Intervention and Functional Recovery on Clinical Outcomes in the REVIVED-BCIS2 Randomized Trial. <https://clinicaltrialresults.org/dr-divaka-perera-and-dr-c-michael-gibson-discuss-effect-of-myocardial-viability-percutaneous-coronary-intervention-and-functional-recovery-on-clinical-outcomes-in-the-revived-bcis2-randomized-tri/> (September 9, 2023)