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# Late Mortality After Drug-Eluting, Bare-Metal Stents, and Coronary Bypass Surgery in Left Main Disease



In a recent issue of the *Journal*, Park et al. (1) published the 10-year follow-up results of the MAIN-COMPARE (Revascularization for Unprotected Left Main Coronary Artery Stenosis: Comparison of Percutaneous Coronary Angioplasty versus Surgical Revascularization) study in patients with unprotected left main (LM) stenosis.

Once again, a significant late loss of the initial benefit of drug-eluting stents (DES) over coronary artery bypass grafting (CABG) was observed in terms of serious composite events and mortality. Of interest, mortality benefit with CABG was only noted in the DES group, whereas in patients treated with bare-metal stents (BMS), no differences were seen (1).

The findings of this study should not be a surprise; despite the fact that patients treated with BMS may have a lower-risk profile and BMS are mostly used in ostial and midshaft lesions, we are seeing an attrition in the efficacy of DES over time to the extent we have not seen with BMS (1-3).

The results of this study are in agreement with a recent meta-analysis of randomized trials in which low CABG mortality compared with that of stents was only seen in the DES group (3).

The EXCEL (Evaluation of XIENCE Everolimus Eluting Stent Versus Coronary Artery Bypass Surgery for Effectiveness of Left Main Revascularization) and NOBLE (Nordic-Baltic-British Left Main Revascularization Study) trials at 4 and 5 years of follow-up, respectively (4,5), have shown a significantly greater incidence of hard late adverse events, compared with CABG despite the use of new-generation DES.

In fact, all DES randomized data, old and new, consistently showed a benefit with CABG in patients with multiple-vessel and LM disease (1,3-5).

It is time to explore plausible explanations for these results, searching for potential solutions: percutaneous coronary intervention strategy, stent designs including DES/BMS effectiveness, and adjunctive medications. Otherwise, percutaneous coronary intervention in multiple-vessel or LM disease, in intermediate- or high-risk patients (3), should be indicated only if patients were poor CABG candidates or had a short life expectancy.

Hernan Pavlovsky, MD  
Alfredo Matias Rodriguez-Granillo, MD  
\*Alfredo E. Rodriguez, MD, PhD  
\*Callao 1441 4B (1042)  
Buenos Aires  
Argentina  
E-mail: arodriguez@centroceci.com.ar

<https://doi.org/10.1016/j.jacc.2018.12.080>

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Please note: All authors have reported that they have no relationships relevant to the contents of this paper to disclose.

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**REPLY: Late Mortality After Drug-Eluting, Bare-Metal Stents, and Coronary Bypass Surgery in Left Main Disease**



Although a randomized clinical trial is the ideal method to evaluate the unbiased treatment effect of myocardial revascularization strategies, well-conducted observational studies, such as the MAIN-COMPARE (Revascularization for Unprotected Left Main Coronary Artery Stenosis: Comparison of Percutaneous Coronary Angioplasty Versus Surgical Revascularization) registry, can provide insightful information on long-term effectiveness and safety of revascularization methods in a broader range of patients encountered in the real-world setting.