

Percutaneous Coronary Intervention of Left Main Disease:

Pre- and Post-EXCEL and NOBLE Era

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ABSTRACT

For nearly half a century, coronary-artery bypass grafting (CABG) surgery has been the standard treatment for patients with obstructive left main coronary artery (LMCA) disease. However, there has been considerable evaluation in the field of percutaneous coronary intervention (PCI). Especially, PCI for LMCA disease is rapidly increasing with adoption of drug-eluting stents (DES). Some, but not all randomized trials have shown that PCI with DES might be a suitable alternative for selected patients with LMCA disease. However, none of previous trials involving early-generation DES have been adequately powered and comparative trials comparing contemporary second-generation DES and CABG were limited. Recently, results of two new randomized clinical trials of 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) was finally released. However, these trials show opposing results and it might add uncertainty on the optimal revascularization strategy for LMCA disease. In this article, with the incorporation of a key review on evolution of LMCA treatment, we summarize the similarity or disparity of EXCEL and NOBLE trial, focus on how they relate to prior trials in the field, and finally speculate on how the treatment strategy might be changed or recommended for LMCA treatment.