

CORONARY ARTERY DISEASE

Mortality after CABG surgery versus PCI

For patients with multivessel coronary artery disease (CAD) and diabetes mellitus, CABG surgery should be the revascularization strategy of choice, rather than percutaneous coronary intervention (PCI). This finding comes from a new meta-analysis in *The Lancet*.

The researchers identified 11 trials in which PCI ($n=5,753$) was compared with CABG surgery ($n=5,765$) in patients with multivessel or left main CAD who did not present with acute myocardial infarction. PCI involved bare-metal stents in four trials, first-generation drug-eluting stents in four trials, and newer-generation drug-eluting stents in three trials.

Mean SYNTAX score was 26, and 22.1% of patients had a SYNTAX score of ≥ 33 . A total of 976 patients died during follow-up (mean 3.8 years). Overall, 5-year all-cause mortality was significantly higher after PCI than after CABG surgery (11.2% versus 9.2%; HR 1.20, 95% CI 1.06–1.37, $P=0.0038$). In patients with multivessel disease, 5-year all-cause mortality was significantly higher after PCI than after CABG surgery, including in those

with diabetes, but not in those without diabetes. The reduction in mortality with CABG surgery tended to be greater with increasing SYNTAX score. By contrast, in patients with left main CAD, 5-year all-cause mortality was similar in the PCI and CABG surgery groups, regardless of SYNTAX score or the presence of diabetes. Long-term follow-up is needed.

“These results help affirm CABG [surgery] as the treatment of choice when revascularization in patients with complex multivessel disease and diabetes is deemed to be necessary,” comments Deepak Bhatt in an associated editorial, although he also notes that other factors, such as shorter recovery time and lower risk of stroke, infection, and bleeding with PCI, might influence decision-making.

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“ mortality was significantly higher after PCI than after CABG surgery ”

ORIGINAL ARTICLE Head, S. J. et al. Mortality after coronary artery bypass grafting versus percutaneous coronary intervention with stenting for coronary artery disease: a pooled analysis of individual patient data. *Lancet* [https://doi.org/10.1016/S0140-6736\(18\)30423-9](https://doi.org/10.1016/S0140-6736(18)30423-9) (2018)

FURTHER READING Iqbal, J. et al. Optimal revascularization for complex coronary artery disease. *Nat. Rev. Cardiol.* **10**, 635–647 (2013)