Survival Following Percutaneous Coronary Interventions Versus Coronary Artery Bypass Graft In Northern New England

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Background: BARI reported that nondiabetic patients with multivessel coronary disease had comparable 5 year survival with PCI or CABG. We examined the generalizability of these findings using consecutive cases of nondiabetic patients in Northern New England.

Methods: Patient characteristics and long-term survival were compared for PCI and CABG patients with multivessel disease, excluding those with diabetes, cancer, 1VD, left main ≥ 50%, prior CABG, or emergencies. Cox proportional hazards models were used for adjusted comparison of 5-year survival.

Results: From 1992-1996, 6,272 patients met study criteria (31.3% PCI, 68.7% CABG). CABG patients were more likely to be > 70, to have 3VD, COPD, EF < 40%, LVEDP > 22, but less likely to require urgent procedures. Adjusted in-hospital mortality was higher for CABG than for PCI (1.57% v 0.05%, p=0.002). Overall, CABG was associated with a small improvement in survival compared to PCI (Table) yet, 5-year survival was comparable for patients with 2VD. The improved survival associated with CABG was confined to patients with 3VD, 91.2% of these had CABG.

Patients	N (% PCI)	Adjusted HR PCI v CABG	95%CI	p	5-Year Survival PCI, CABG (%)
2VD	3890 (44.5)	1.24	0.91, 1.69	0.167	88.6, 88.7
3D	2382 (9.8)	1.87	1.17, 3.01	0.009	84.4, 94.7
All	6272 (31.3)	1.36	1.05, 1.78	0.021	89.6, 91.6

Conclusion: Like BARI, we found similar survival for patients with 2VD in PCI and CABG. Unlike BARI, we found a survival benefit for CABG over PCI for patients with 3VD. This may reflect unmeasured differences in patients introduced by our registry setting or procedural characteristics, such as completeness of revascularization. This observation may be used to inform physician and patient decision making.