Death (After Percutaneous Coronary Intervention) Is No Longer What It Used to Be

Philippe Gabriel Steg, MD; Adrian Piers Cheong, MD

Percutaneous coronary intervention (PCI) has revolutionized the management of coronary artery disease. Its main goals are to improve the quantity and sometimes the quality of life by reducing mortality and nonfatal outcomes and by improving symptoms. Although these goals were clearly achieved when PCI was applied to the treatment of acute coronary syndromes, there is still uncertainty about the prognostic benefits of PCI in patients with stable coronary artery disease: Whereas PCI clearly improves angina symptoms, its benefits on clinical outcomes remain debated and may occur only if patients are at sufficient risk (because of extensive myocardial ischemia or because the amount of jeopardized myocardium is large enough).

The decrease in long-term cardiac mortality is likely explained not only by improved procedural techniques and adjunctive therapies but, more important, by the increase in the use of effective evidence-based medical therapy for secondary prevention, relying (in addition to lifestyle...
Although long-term cardiovascular mortality after PCI has decreased steadily over time, this decrease is related mostly to reductions in sudden death and fatal myocardial infarction. In contrast, mortality related to heart failure has remained stable, pointing to the need for improved long-term prevention of congestive heart failure-related mortality as one of the major targets for research in this area. In addition to having more severe coronary disease in the more recent cohorts, patients had a higher burden of noncardiac diseases, and Spoon et al demonstrate, very consistently, a progressive rise in noncardiac deaths over long-term follow-up in recent periods. This is consistent with observations in a recent study of PCI in octogenarians. The fact that noncardiovascular causes of death have become dominant after PCI is not entirely surprising. Despite success in reducing the short-term risks associated with PCI, we are operating on older patients who are succumbing to cancer and respiratory, liver, and renal failure in the long run rather than to cardiac causes.

Thus, a new front has opened up in the war against cardiovascular disease, and it has nothing to do with the heart. This observation has several implications. First, from the standpoint of clinical research, although mortality remains the ultimate clinical trial outcome, future clinical trials of cardiovascular outcomes after PCI will need to study outcomes beyond mortality and incorporate nonfatal cardiovascular clinical outcomes and quality of life. Otherwise, trials aiming at mortality reductions would need to be very large. After all, this is to be expected and has been the norm in many other fields in medicine in which mortality reduction is either rare or irrelevant. Then there are implications for patient care and even for training of cardiologists. It is a reminder that greater attention should be paid to the patient as a whole, including comorbidities, before committing him or her to an invasive procedure. This observation after PCI is a reflection of a broader trend: The prevalence of comorbidities is increasing in the ever-older cardiology patient population. Whereas in the past many patients would die of cardiac disease prematurely before experiencing the many comorbidities that go along with advanced age, progress in prevention and treatment has now decreased the incidence and lethality of cardiac diseases. In turn, patients surviving long term after an initial heart attack have developed an increased prevalence of comorbidities, the treatment of which may pose more problems to cardiologists than the solution to their cardiologic problem. In many coronary care units, the patient with acute myocardial infarction has now become the “simple” patient compared with the patient in whom a cardiac complaint may be associated with a host of severe comorbidities that often require multiple consultations with specialists. This argues for greater integration of cardiology, as a specialty, with internal medicine, not only in the organization of care but even at the stage of training of junior physicians. It is, in some sense, ironic that the successes of cardiology in tackling cardiac mortality now result in the need to reintegrate cardiology and internal medicine when, for many years, cardiology has sought greater specialization and autonomy.

Disclosures

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References


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