

Preface

Over the last decade, most developed countries have witnessed a marked decline in the use of coronary artery bypass grafting (CABG) in favor of stenting. Indeed, back in the mid-2000s, with the introduction of drug-eluting stents, it actually appeared that CABG might be reaching the end of its natural life. However, many of us in the surgical community were not persuaded by the apparent benefits of stents in comparison to CABG. We did not feel that it offered the same advantages, in terms of quality of life, improved life expectancy, and freedom from angina and recurrent interventions. Results published in the past few years have swung the pendulum back in favor of CABG, although much more work still needs to be done.

The publication of the five-year results of the SYNTAX trial, the FREEDOM trial in diabetics, and the ASCERT registry have all confirmed that there is indeed a strong survival advantage in favor of CABG for most patients with multivessel disease. These findings have been slowly integrated into new guidelines both from Europe, under the ESC and EACS, and in the United States, under the ACC, AHA, STS, and AATS. However, these have also highlighted one of the potential problems with the way we perform contemporary CABG, namely the relatively low use of multiple arterial grafts.

Just over a quarter of a century ago, the Cleveland Clinic published a landmark paper describing the survival benefit of a single internal mammary artery (IMA). But over the last decade, there have been numerous publications of propensity-matched registries suggesting that there is in fact a strong benefit in using a second IMA. Indeed, my own group in 2001 published a systematic review in the *Lancet*, pointing out the strong survival benefit of two IMAs over a single IMA. However, the harsh reality remains that in most developed countries, only 5 to 10 percent of patients receive two IMAs. It is hoped that ongoing research, including the Arterial Revascularisation Trial organized by my group, will generate high-quality evidence-based guidelines for this significant matter.

In the current issue of *Annals of Cardiothoracic Surgery*, my co-Guest Editor Brian Buxton and myself, under the guidance of the Editorial Board, have put together an authoritative, international, and well-recognized expert panel to discuss every aspect of the use of arterial grafts in coronary artery bypass grafting. A wide range of topics are examined, including the evidence base for CABG itself, indications for the use of various arterial grafts, and the selection, harvest and deployment of these grafts.

Brian and I hope that you will find this to be an informative and educational issue of ACS. It is our great honor to be Guest Editors, and we would like to acknowledge our deep appreciation to our expert faculty for their expertise and knowledge, which has enabled us to put together what we feel to be a seminal issue of *Annals*. We would finally like to thank the Editorial Board, particularly Paul Bannon and Tristan Yan, for affording us the privilege of being the Guest Editors of this issue. We hope you enjoy reading it as much as we enjoyed putting it together.

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