

Foreword

Total Arterial Revascularization—the evidence, the reality and the dilemma

It is our pleasure to present an issue entirely devoted to the subject of Total Arterial Revascularization. Our Guest Editors are Professors David Taggart of Oxford and Brian Buxton of Melbourne, two stalwarts of the arterial graft who have brought together an internationally renowned faculty. As with previous issues, we explore every angle of this topic from meta-analyses of bilateral versus single mammary grafts to the radial artery versus the vein graft. Not only do we gain insights from luminaries such as Christopher Acar, who presents 20-year results of the radial artery graft, but we are also inspired by the works of James Tatoulis, who has relentlessly provided us with some of the best data on arterial grafting, and Bruce Lytle, who has enlightened us on our responsibilities. Arie Blitz and Richard Brodman, with the help of Beth Croce, have produced some of the most detailed and exquisite images of radial artery anatomy, which have been complemented by comprehensive instructions on how to harvest the conduits endoscopically.

Despite the clear evidence for the use of bilateral mammarys for all arterial grafting, we are constantly reminded of the risks, rather than the benefits, that are associated with their use. The application of bilateral mammarys in modern practice remains appallingly low, which, in Bruce Lytle's words, borders on the unethical. Just as David Taggart has led the fight against the "ad hoc" use of percutaneous coronary interventions and urges us to focus on informed consent and survival, we also need to reassess our own performance and eschew the "ad hoc" or default use of the saphenous vein. Once the patients have made their way to the surgical team, their consent and survival must be of the utmost importance.

Moncada *et al.* described a balloon model of endothelial injury and the resultant neo-intimal hyperplasia. Strangely, this model of injury was adopted by our cardiology colleagues to treat coronary artery disease. However, Professor Guo-Wei He recognized early the importance of protecting the artery wall and maintaining endothelial function, giving weight to renewed surgical practice. More recently, the translational research community has concerned itself with questions of why the mammary artery is so special and how to replicate it. The article by the renowned pathologist, Renu Virmani, addresses this issue in detail.

Our own work began with endothelial barrier function and has led to a lifelong interest in biocompatibility. Byrom *et al.* poses the simple question: can we simply build a mammary artery? If the answer is yes, then all the reasons for not using the second mammary may simply disappear. For the time being however, we must embrace the seminal work of Drs. Lytle, Taggart, Tatoulis and Buxton and take up their fight with the same vigor. Whatever your focus, we believe you will find something of great relevance in this issue. We thank all of our eminent contributors and in particular our Guest Editors for their tireless work and extraordinary contributions to this field.

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