Foreword

Transapical aortic valve implantation - A paradigm for innovation and collaboration in modern cardiac surgery

Historically, cardiac surgery has been afforded tremendous visibility and publicity. The giants of the profession such as Drs. Christiaan Barnard, Walton Lillehei, Michael DeBakey and Denton Cooley were well known to the public. In the days of the first cardiac transplants and rapid promulgation of cardiopulmonary bypass, cardiac surgery as a discipline was well funded, was revered by the public, and became increasingly clinically effective. The degree of latitude in development (experimentation) was extraordinary by any measure and naturally cardiac surgeons found themselves in a highly specialized and protected environment. For many years this unique position appeared unassailable. Surgical techniques and skills were perfected, data collected and in many cases results have been exemplary. Technology, however, has also taken giant steps and continues to do so, rightly challenging accepted beliefs and procedures.

The advent of statins and percutaneous coronary stenting was a game changer for cardiac surgery. They forced the profession to look critically at the long term. As a result the focus shifted away from the care of the patient with single or double vessel disease to the care of the patient with multi-vessel and often chronic disease. Some cardiac surgeons felt their turf had been invaded and that the future of cardiac surgery was at risk. Others took up the challenge examining more and more closely both interventional and surgical results, unafraid to publish and willing to fight for the patient. It could be said that cardiac surgery almost became a victim of its own pride and profound success.

At the same time, the public interest also shifted. The surgeon is no longer the focus, appropriately it is the patient. Procedural mortality remains important, but the concepts of quality of life and fiscal responsibility loom ever larger. Perhaps one of the greatest lessons that we will need to learn, if we have not already done so, is that we must shift our attention to improving patient outcomes by accepting our limits, collaborating with other disciplines, integrating new technology into our practice and developing effective service line models to remain competitive in the 'market place'. To improve outcomes, one must design valid questions and matrices, then measure them accurately and share that information in an effective and non-punitive manner. The SYNTAX and PARTNER trials have served as models for outcome analysis and collaborative efforts between cardiac surgeons and cardiologists. The results of these extraordinary collaborative efforts need not be feared. Ironically, what cardiac surgeons were once fearful of, new technology, will not only help us to achieve better results for sicker patients, but may also help revive an honoured profession by inspiring a new generation. Whether this new generation will be referred to as Surgeons, Interventionalists or perhaps "Operative Physicians" remains to be seen.

The present issue of the ***Annals of Cardiothoracic Surgery*** aims to capture a snapshot of a rapidly growing technology, Transcathether Aortic Valve Implantation (TAVI), with a particular emphasis on the transapical approach, as it truly represents a paradigm for innovation and collaboration in modern cardiac surgery. We are indebted to the pioneers in this field, in particular to Professor Friedrich Mohr from Leipzig, Michael Mack from Dallas, Alain Cribier from Rouen and John Webb from Vancouver. As we all know that being a vocal advocate of a new technology inherently puts one in a position of being an advocate for change, and controversy is an inevitable companion of change. We strongly encourage you all to at least keep an open mind about this innovative procedure, as it may well turn out to be as widely accepted as percutaneous coronary intervention and a skill that a modern cardiac surgeon is expected to master in the coming years.

Now, it is our great pleasure to introduce our special Guest Editor, Professor Michael Borger, associate director of the Department of Cardiac Surgery at the Leipzig Heart Center in Germany, where approximately 1,500 TAVI cases have been performed to date. We sincerely thank his collaborators from all over the world for this excellent issue of the ***Annals of Cardiothoracic Surgery***. They are consummate professionals in every sense of the word. We will all be well served to learn from the successes and challenges that our pioneers in modern cardiac surgery face, as we develop through this interesting time.

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