Thoraco-Abdominal Aorta: Surgical and Anesthetic Management
Thoraco-Abdominal Aorta: Surgical and Anesthetic Management
To our families
without whose years of selflessness
sacrifice and loving support
this would not have been possible
The editors, Roberto Chiesa, Germano Melissano, and Alberto Zangrillo, are to be congratulated for the continued success of their educational series, *Aortic Surgery and Anesthesia “How To Do It”*. Also this new volume, entitled *Thoraco-Abdominal Aorta: Surgical and Anesthetic Management*, will undoubtedly be much revered and provide an exceptional educational reference for all aortic surgeons.

I had the good fortune of completing my residency under the late E.S. Crawford, who many of you would agree was the most accomplished aortic surgeon of his era. He taught us that although reparative surgery of the thoraco-abdominal aorta is appropriately complex, it is not impossible to achieve good results in the vast majority of elective cases. Crawford similarly influenced this book’s surgeon editors through personal demonstrations of his techniques. Aortic surgery was, and continues to be, a collaborative effort in which the best approaches are identified and shared. As is evident at the San Raffaele Scientific Institute, the collaborative approach frequently results in outstanding patient care.

As I approach the personal milestone of completing 3,000 thoraco-abdominal aortic repairs, I look back fondly to the surgical mavericks of the past, who helped make my success possible. At the same time, I look forward to ongoing collaboration, such as with the outstanding clinicians at San Raffaele, as I continue to refine my operative approach.

The book before you holds an incredible synthesis of practical knowledge from the world’s foremost experts on thoraco-abdominal aortic repair. Its 62 highly detailed chapters cover the general principles of thoraco-abdominal aortic repair, the variety of imaging techniques available to diagnose aneurysmal and other aortic disease, the spectrum of anesthetic techniques needed to adequately manage patients, comprehensive treatment strategies, and many novel approaches to highly complex, patient-specific aortic conditions. Additionally, several chapters focus on life after surgery, thus reminding us of existing challenges and the need for continued improvement. Toward that goal, the final section of the book details emerging technology, devices, and graft materials.

In closing, this book, to be issued at the surgeon editors’ Fourth International Congress, provides a wonderful synthesis of the past, present, and future of aortic surgery. The academic surgeon has a unique responsibility—to identify and disseminate innovative operative strategies as the relative advantages of various techniques and technology are better understood. Drs. Chiesa, Melissano, and Zangrillo are to be commended for compiling this thought-provoking and comprehensive book on thoraco-abdominal aortic surgery.

*Houston, December 2010*

*Joseph S. Coselli, MD*

*Guest Editor*
Repair of the thoraco-abdominal aorta represents a formidable challenge for surgeons, anesthesiologists and patients alike. As opposed to aortic disease confined to the chest, where the introduction of endografts has radically changed the therapeutical paradigm with much improved results, endovascular options for thoraco-abdominal aortic disease are still burdened by significant mortality and morbidity. In particular the rate of paraplegia, the most devastating complication, has not dropped significantly (as initially hoped) in the endovascular era.

In the near future thoraco-abdominal aortic disease will be diagnosed with increasing frequency due to the aging of the population (with longer exposure to high blood pressure and other risk factors) and the increasing sensitivity of non-invasive imaging modalities; the topic is therefore a very "hot" one. While operative repair is generally carried out in specialized institutions, knowledge of the state-of-the-art diagnostic, anesthesiologic, surgical and endovascular aspects will certainly be of great help to all physicians involved in the care of these patients at any level. Our goal was to bring together in one book information that comes from different specialists and different geographic areas; all the Authors however, share a vast personal experience together with a great dedication and special commitment to these very difficult patients.

While medial degeneration is the most common cause of thoraco-abdominal aortic disease, different conditions (dissection, intramural hematomas, penetrating ulcers, traumatic injury, coarctation, syndromic and non-syndromic inherited forms) represent almost half of the indications for thoraco-abdominal aortic repair. All these will be covered in the book with particular emphasis on preoperative imaging, anesthesiologic management and different therapeutic options. Moreover other less commonly explored aspects such as pharmacological, psychological, ethical and rehabilitation ones have also been covered. Finally, several chapters describe in detail the peculiar features of the devices most commonly used to treat aortic disease.

It has been impossible to avoid a small degree of overlapping among chapters regarding similar or contiguous topics, however we feel that the Authors have made a great job in sticking closely to their subject making each chapter, and the book as a whole, very useful and pleasant to read. The readers will notice that some key topics have been assigned to two different Authors. As a consequence of this decision some degree of overlapping and repetition has been unavoidable, however we believe that this is outweighed by the benefits of sharing the experiences of two different distinguished schools, often from two different continents.

We feel personally in debt and wish to express deep gratitude to all the Authors, both the colleagues from our own Institution and the many other knowledgeable opinion-leaders from different countries who contributed with their outstanding work. Editing this book has been not only a great honor but also an incredibly enriching and enlightening experience. We do hope that you will enjoy reading this book as much as we did editing it.
Don Luigi M. Verzè, founder and president of our Institution, the San Raffaele Hospital and the “Vita-Salute” (“Life-Health”) San Raffaele University, reminds us that the object of medicine is not disease but rather patients. We are treating human subjects with their biological, psychological and spiritual components as well as their social and familiar milieu fused in a very unique personal history. True healing also requires a profound participation of the patient, the human subject, who is the only one to know how much illness he can fight and how much can be accepted. We will always be in debt with Don Luigi for passing on to us not only his teachings but also his never-ending enthusiasm, perseverance and commitment.

Milan, December 2010

Roberto Chiesa
Germano Melissano
Alberto Zangrillo
Editors
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