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## Preface

Some 15 years ago, as the authors were all working at a high-volume vascular surgical center of the Beth Israel Deaconess Medical Center in Boston, there was a realization that patients undergoing vascular surgery present the anesthesiologist with a unique set of challenges. These patients are usually elderly with a host of cardiac, cerebrovascular, renal, and metabolic comorbidities, which are usually expected to get worse either transiently or permanently with the insult of the major vascular surgery. Meeting the challenges is not only a lofty goal for the anesthesiologists involved, but also is a requirement predicated on the covenant relationship that the anesthesiologists have with the patients. And doing so requires comprehensive understanding of the pathophysiology and anatomy of the disease processes, the surgical techniques used to address the ailments, and the spectrum of anesthetic medications and monitoring modalities.

This book represents our best attempt to bring together these components that need to be understood in order to properly meet the challenges of caring for a complex vascular patient with a disease of the aorta and its major branches. We have brought together the expertise and experience of some of the best surgical, medical, and anesthetic minds on the subject. This book is intended for cardiac anesthesiologists, cardiovascular surgeons, intensivists, nurse anesthetists, residents, and fellows of these respective specialties who are involved in the care of aortic surgical patients. Recent developments in aortic surgery such as endovascular surgery make the older textbooks on this subject obsolete.

Chapters include anatomical description of aorta, pathogenesis of acute aortic syndrome, preoperative evaluation, detailed description of aortic surgery and anesthesia for specific aortic procedures (ascending aorta, arch, descending aorta, endovascular surgery, trauma, and surgery for congenital aortic pathologies). Intraoperative echocardiography and cerebral monitoring have gained importance in cardiac surgery in recent years and separate chapters describe these monitoring techniques. Two chapters are devoted to specific organ protection (spinal cord and renal protection) since organ dysfunction is a major cause of mortality and morbidity after aortic surgery. The book ends with a concise description of postoperative care. Overall, this is a complete textbook on aortic anesthesia, which will serve as a reference for those involved in the care of aortic surgical patients.

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We hope that this book will help you to offer better care for aortic surgical patients.

Kathirvel Subramaniam  
Kyung W. Park  
Balachundhar Subramaniam

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