Historically, the treatment of aortic regurgitation has undergone several changes. First attempts at repair were undertaken in the 1950s. At that time understanding of normal valve and root anatomy and physiology was limited by the lack of imaging techniques; consequently, the results of repair were unpredictable and suboptimal. Valve replacement, initially with mechanical and later with biologic prostheses, has revolutionized treatment of aortic regurgitation by making it reproducible. Replacement with a pulmonary autograft was developed as an option for young individuals who could not or would not take long-term anticoagulation. In the past 2 decades increasing evidence has been collected that prostheses are associated with a significant incidence of valve-related complications. Patients have become more educated and expect surgical options that address their specific needs; quality of life rather than mere life expectancy has increased in importance.

In the past 20 years better imaging techniques and improved understanding of normal aortic valve anatomy and function have resulted in the development of repair techniques that today allow repair in many instances of aortic regurgitation, either with or without aortic dilatation. Aortic valve repair is evolving similar to mitral repair 30 years ago, and repair has been shown to result in fewer valve-related complications that would be expected from aortic valve replacement. The possibility of reconstruction has raised new questions regarding preoperative imaging, forced surgeons to change their approaches to aortic valve disease, and raise questions over traditional criteria in decision making for surgery. Treatment of aortic regurgitation has thus become the subject of interdisciplinary efforts similar to other areas of heart valve disease.

Current textbooks have difficulty in keeping track with the dynamic changes. They often provide information with an isolated focus on pathology, cardiology, or surgery, rather than integrated knowledge of all involved specialties. In addition, aortic valve repair is not yet widely established and there is uncertainty regarding its options and limitations as well as exact the techniques that can be applied.

This book tries to accommodate both traditional knowledge and recent developments (1). A group of internationally-renowned authors from a variety of specialties have made a collaborative effort to provide a state-of-the-art overview of all aspects of the disease. Anatomy, pathology, cardiological aspects and current guidelines are presented by European leaders in their fields. Surgical techniques and results are likewise summarized by an international team of individuals with a strong track record in their respective areas. The topics are presented precisely, comprehensively, and with the facility of quick reference in mind. Detailed description of surgical techniques and their long-term results allows cardiologists to judge their relative importance. Surgeons can use the technical descriptions before choosing or performing specific reconstructive operations. As such, this book is unique and can be a reference to all health care professionals seeking information on the latest developments.

Reference

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