Fortschritte
der Herz-,
Thorax- und Gefäßchirurgie
Herausgegeben von R. Hetzer

Henryk Siniawski

Active Infective Aortic Valve Endocarditis with Infection Extension

Clinical Features, Perioperative Echocardiographic Findings and Results of Surgical Treatment

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FOREWORD

Active infective endocarditis, which until 40 and 50 years ago carried an almost 100 percent mortality, has greatly benefited from the immediate and consequent application of antibiotics on one hand, and, from growing experience and early decision-making for radical surgical elimination of all infected tissue on the other hand. This became most important in the cases of aortic root infection complicated by perivalvular extension through causing sometimes large abscess formation with destruction or compression of the surrounding structures. The most effective way of successful treatment has become the complete debridement of all destroyed tissue and the implantation of homograft valves for aortic valve replacement, or in the larger abscess cases, the replacement of the entire aortic root with a valved homograft conduit, thus excluding the infected cavities from the circulation. These conduits are then implanted between the unaffected muscle of the left ventricular outflow tract and the unaffected ascending aorta, which requires re-fixation of the mitral valve and re-implantation of the coronary ostia into the homograft wall. The secret of the homograft substitute has been recognized to be the complete absence of prosthetic material. This experience and the fact that a suitable homograft is not always available when needed has prompted the Shelhigh company to create a xenograft valve and xenograft conduits without any artificial prosthetic components. This makes the Shelhigh valve and conduit the most adequate for endocarditis cases with almost equally good result as the homograft.

Echocardiography, in particular in the transesophageal observation mode, has become the most important and adequate diagnostic method to describe the amount of valve infliction and also the degree of infection extension into the periaortic tissue and destruction or compression of surrounding structures.

In this monograph Docent Dr. Siniawski has compiled his enormous experience and knowledge about diseased valves in active infective endocarditis and he has also included some very original observation which he has made by grading periaortic abscess in their various states which makes it possible to detect threatening abscess when it is in its earliest state. This has allowed us to decide for surgery at an earlier time of the infection process when further destruction must be anticipated and can be halted. This, of course, must be seen in the light of Dr. Siniawski's more than 20 years of echocardiography studies in tens of thousands of valves that were treated at the German Heart Institute Berlin where, since 1987, he has been the first of now a team of "surgical echocardiographers", exclusively working with the cardiac surgeons, thus understanding their need of specific information and understanding valve surgery more than any cardiologist that I know.

This monograph is the lively product of such a new type of echo-specialist, and I am convinced that it will be valued high by all cardiac surgeons, cardiac anesthesiologists and surgery-oriented cardiologists.

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