

## Preface

The most common cause of death in the civilized countries remains coronary heart disease, a multifactorial illness which might be best treatable by prophylactic means. In spite of improvements in diagnosis, drug therapy, monitoring, and particularly surgery morbidity and mortality of our patients oblige us to look for new frontiers in understanding the pathophysiology of the disease and for new approaches in the treatment of myocardial dysfunction, the limiting factor in the activity of patients surviving an acute myocardial infarction. Salvage of viable myocardium still seems to be the most important challenge in the treatment of acute ischemia. Lysis therapy to reopen occluded coronary arteries seems to be promising in a great number of patients. However, several experimental reports of reperfusion injury and clinical series with a considerable number of patients, who do not benefit from this intervention, need alternatives to reassess myocardial structure and function. The necessity to find solutions to this problem coincides with the development of an alternate access route to deprived coronary vasculature. Starting with the ideas and results gathered in the last 60 years, Meerbaum and Corday in Los Angeles and our group here in Vienna developed two different approaches to myocardial protection via the coronary sinus. After completing experimental evaluation and preliminary human trials it is now time to draw the attention of the scientific community, as well as the practising cardiologist and cardiovascular surgeon, to interventions such as synchronized retroperfusion or pressure controlled intermittent coronary sinus occlusion and retrograde cardioplegia delivery during open heart surgery. This volume will present the proceedings of the 1st International Symposium of Myocardial Protection via the Coronary Sinus held in Vienna, February 27 till 29, 1984. The motivation to call for this convention was to bring this rapidly developing subject to experts of related areas to guarantee a multidisciplinary evaluation of new therapeutic interventions. Since our knowledge of the basics of the coronary venous system has to be developed we included the experience of anatomists, physiologists, and even bioengineers for a synthesis of the available background information. It is the aim of this book to identify what is known about the coronary venous system, what is controversial, what we think about interventions such as retroperfusion or intermittent coronary sinus occlusion, and which areas merit further study. The clinical entity of Beck's procedure particularly intrigued me, and eventually led me back to the animal laboratory and the development of pressure controlled intermittent coronary sinus occlusion. Therefore this book is dedicated to those who find special interest in proposed ideas and fulfill speculations so that research interests with many nuances become formidable tasks and finally add to the puzzle of understanding the pathophysiology of the heart.

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