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Where Are We Going?

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Preface

The treatment of end-stage renal disease patients has greatly evolved in the last decade. The original design of hemodialyzers has been partially modified to improve efficiency and performance. The membranes utilized for extracorporeal blood purification techniques have been synthetically generated or modified according to specific requirements. Further improvements have been achieved with the development of highly hemocompatible surfaces and components of the extracorporeal blood circuit. In the mean time, the availability of new devices and new membranes has led to the development of modern hemodialysis techniques in which clinical tolerance and high efficiency have significantly improved morbidity and mortality in hemodialysis patients. Nevertheless, the limitations imposed by hemodialysis have clearly emerged, especially from the long-term complications occurring in patients treated for several years. In this setting, new approaches are under evaluation. Since most of the long-term complications seem to be related to the chronic inflammation of ESRD patients and the progressive accumulation of middle-large molecules such as beta-2-microglobulin, GIP, leptin and others, a novel approach would be represented by a treatment capable of adequately removing these substances from the body of the patients. In this view, new polymers with biocompatible surface and high affinity for specific molecules have been developed and introduced to the market. Adsorption might in fact represent a new form of solute removal to be used in conjunction with the most sophisticated forms of renal replacement therapy. All the above-mentioned considerations have stimulated the collection of a series of manuscripts from worldwide experts in the field in an attempt to provide the reader of this book with a comprehensive summary of the most updated technology in the field of hemodialysis. New devices and new techniques are described and discussed in detail. The rationale for adsorptive therapies completes the analysis together with a series of preliminary results achieved with the most recent techniques.
This volume contains some of the contributions presented during a technical forum organized by Karger Publishers on the occasion of the EDTA-ERA Congress held in Nice, France, in September 2000. The book has been completed thanks to the scientific and organizational support of RenalTech International. To both these partners, we extend our sincere appreciation and gratitude for making the publication possible and of high quality.

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