

THE DIABETIC KIDNEY

CONTEMPORARY DIABETES

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SERIES EDITOR

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THE DIABETIC KIDNEY

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DEDICATION

This book is dedicated to Dr. Nathan W. Levin and the late Dr. Knud Lundbaek,
our mentors and friends.
They have been a great inspiration to us.

SERIES EDITOR'S INTRODUCTION

Diabetes is becoming a pandemic that affects not only developed countries but developing countries as well. As a result, there is also a dramatic increase in long-term diabetes complications, including diabetic nephropathy. The fact that 50% of the patients undergoing dialysis also have diabetes is further proof of the seriousness of the situation.

In *The Diabetic Kidney*, we are honored to collaborate with two distinguished clinicians and researchers, Drs. Pedro Cortes and Carl Eric Mogensen, who have edited an excellent book on diabetic nephropathy that greatly increases the scientific impact of the "Contemporary Diabetes" series. Drs. Cortes and Mogensen have assembled a stellar group of contributors who discuss the pathophysiology and clinical aspects of diabetic kidney disease. Readers can achieve a clear understanding of the progress that has been made regarding the pathogenesis of the disease along with the therapeutic interventions to prevent its development or to treat clinical diabetic nephropathy.

I have no doubt that *The Diabetic Kidney* will be of value not only to practicing clinicians but also to researchers in this field. Therefore, I sincerely thank the editors for their efforts to produce this book and also the contributors for the excellent chapters. I have no doubt that *The Diabetic Kidney* can become a reference text that has a major impact on our efforts to improve the lives of diabetic patients with kidney disease.

Aristidis Veves, MD
Series Editor

PREFACE

Renal abnormalities in diabetes were first recorded in the 19th century, where French and German clinicians described the renal hypertrophy and proteinuria in diabetes. A breakthrough in the understanding of the diabetic renal disease came with Kimmelstiel and Wilson's description of glomerular lesions and diabetes in 1936. The area remained very silent until the late 1960s, when the seriousness of diabetic nephropathy became extremely clear. Since that time, there has been an increase in the number of patients with diabetes, especially type 2 diabetes, and subsequent renal disease, ending up in advanced renal disease with need for dialysis. Since the 1980s, there has been a tremendous input of diabetic patients in the dialysis and transplantation units. We are finally beginning to see a decline in the number of patients in the dialysis unit, at least in Europe. It is no secret that about 50% of the patients in the dialysis unit in most countries are patients with diabetes.

In the last few years, there has been a steady increase in the scientific activity regarding both the basic and clinical side of the problem. This is reflected in *The Diabetic Kidney*, where the background, biochemically and biologically speaking, for diabetic renal disease is described in many chapters focusing on the multiple abnormalities.

The clinical section also reflects a great level of activity within the area. Presently, there is greater focus on early detection of nephropathy by screening for microalbuminuria, and on early treatment. The main basis for developing diabetic renal disease still constitutes problems of the improving glycemic control. Despite the DCTT and UKPDS studies, many patients with both type 1 and type 2 diabetes have far from optimal glycemic control, and in many centers, the mean A1c is between 8.5 and 9% in unselected populations with type 1 and type 2 diabetes. Obviously, there are also good examples of extremely well-controlled patients, but on the other hand, there are a large number of poorly controlled patients, sometimes explained by noncompliance or often difficulties in controlling the diabetic state.

The editors of *The Diabetic Kidney* are sure that the activity described by many of the authors will further increase the understanding of the basis for abnormalities in diabetic renal disease as well as better understanding of the diagnosis and treatment in patients with diabetes.

It has been the editors' pleasure to select many of the top scientists within the diabetic renal disease field who have equally worked effectively on the chapters and submitted them in due time for an up-to-date status of our still severe problem of diabetic nephropathy.

Pedro Cortes, MD
Carl Erik Mogensen, MD

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