

Book reviews

Type II Diabetes – Prediction and Prevention. Graham A. Hitman (ed), John Wiley & Sons Ltd, Chichester, New York, Weinheim, Brisbane, Singapore, Toronto 1999, pp 401 (ISBN-0-471-98595-3), Hardcover, £ 80.

The focus of this book is directed towards the strategy to predict and prevent Type II (non-insulin-dependent) diabetes mellitus; a desirable attempt given the accelerating prevalence of this disease. In the editor's preface it is stated that the purpose of the book is to highlight the main areas of research, whereby prediction and prevention of Type II diabetes will become a reality in the future.

The book consists of five parts. In the introduction, the aetiology of the disease is discussed and the latest epidemiology data given. The second part contains an updated introduction to the genetics of Type II diabetes as well as tentative methods to identify the major gene. The genetic background of the different subgroups of Type II diabetes is discussed together with the latest news on the use of animal models for genome screening. The next part of the book describes the impact of environmental factors and the final two parts discuss screening, prevention and future development.

It is difficult to get a clear picture of how this polygenetic epidemiological problem should be attacked, since the aetiology is not clarified. Nevertheless, the book fulfills the aim stated by the editor well by highlighting the areas of research as such. In particular, the genetics (Stern et al., Pedersen) and the part concerning current knowledge of how to identify responsible genes (Mc Carthy) are thoroughly and accurately presented. The reader is here given a clear picture of this complicated issue, and this text could be recommended to any researcher attempting to start new projects in this area. The section discussing intrauterine development, gestational diseases and obesity is well written, but it focuses mainly on the link between these pathogenic factors and Type II diabetes. It would seem important to give the reader more information about the genetics, the regulation of the impact of these environmental factors and the genetic background of obesity.

The section on screening and prevention is up to date and gives a traditional overview as well as new aspects concerning the strategy to attack these problems from ethical, ethnical, political and economical point of views. Some of these chapters are original and should be of broad interest in the work of health care and prevention programmes. The brief chapter discussing the putative role of gene therapy focuses entirely on

the techniques to increase insulin secretion. This issue may be considered somewhat premature but the text might serve as an optimistic report from the front-line.

Since many authors are involved in writing this book, several chapters partially overlap. A number of introductions include a brief review of the genetic background despite the presence of special chapters covering this issue. Although these parts could have been edited more actively, the book is still most enjoyable. Furthermore, the rich reference lists and the well-disposed index enable the use of this book as a handbook of Type II diabetes research. Altogether, this book is a well-written report from the research front and should be of interest to endocrinologists, diabetologists as well as to any clinician with a special interest in Type II diabetes. Some chapters could also be recommended to those who plan screening and prevention programmes.

A Preventing Gene Concept could be more thoroughly discussed in a forthcoming edition. If the major gene is so widely spread, who is protected against the outbreak of an overt disease? These issues seem crucial to the development of strategies for the prevention of inherited diseases with increasingly high prevalences such as obesity and Type II diabetes.

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Exercise and Sport in Diabetes. B. Burr, D. Nagi (eds.), John Wiley & Sons Ltd. UK (1999), 194 pages, ISBN 0-471-98496-5, £ 40.00.

This book is for health care professional who treat people with diabetes mellitus. The entire diabetes team, including clinicians, medical students, nurses, nutritionists, psychologists, sports scientists, physical educators as well as the diabetic sports enthusiast, can benefit from this comprehensive book. The chapters combine state-of-the-art research based on established literature with clear practical guidelines to ease the challenge of managing diabetes mellitus in the physically active person. This book carefully considers the important fundamental differences in the physiological and metabolic response to exercise in patients with insulin- and non-insulin-dependent diabetes mellitus. Benefits and risks of physical exercise for these people are discussed. This book covers a broad range of topics including physiological, biochemical, psychological and

sociological aspects of exercise and sport in the management of diabetes. The book provides strategies to encourage children and adolescents to participate in sporting activities and raises special considerations for recreational and competitive diabetic athletes. Useful tables and figures summarising important concepts are included. This text is a concise, one-stop guide to the latest information regarding sports and exercise in the management of diabetes mellitus.

From the contents:

- **Physiology of Exercise.** Offers an overview of physiological responses to exercise which support muscle metabolism and provides nutritional strategies for preparation and participation in sporting activities.
- **Exercise in Insulin-Dependent Diabetes Mellitus.** Presents strategies for a person with insulin-dependent diabetes mellitus to manage his condition independently and safely during various kinds of sports and exercises.
- **Exercise in Non-Insulin-Dependent Diabetes Mellitus.** Provides a critical evaluation of the role of physical activity in the modern approach to the management of diabetes, insulin resistance, and the metabolic syndrome.
- **Risks and Benefits of Exercise in Non-Insulin-Dependent Diabetes Mellitus.** Reviews the current literature, assessing the impact of physical activity on relief of symptoms, prevention and treatment of acute and long-term complications and management of accompanying disorders.
- **Exercise in Children and Adolescents with Insulin-Dependent Diabetes Mellitus.** The challenges of managing insulin-dependent diabetes mellitus in children and adolescents including psychological and sociological benefits are discussed. Much of the practical advice developed as the result of long-standing exercise programmes of young people with diabetes.
- **The Role of Short Acting Insulin Analogues in Sport.** The use of a short acting insulin analogue in the exercising diabetic patient is considered. Therapeutic strategies and nutritional recommendations are presented.
- **Considerations for Different Sporting Activities.** General principles, practical advice, case studies, and guidelines are presented to design exercise prescriptions that can be applied to a variety of sporting activities.
- **Exercise in Elite Athletes.** Special emphasis is placed on the management of diabetes in the competitive marathon runner. Guidelines for footwear, clothing, training, diabetic control and monitoring, insulin dose, and nutritional considerations are presented.
- **Adoption and Maintenance of a Physical Activity Programme for People with Diabetes.** Useful strategies to start an exercise programme are provided. A detailed flexibility programme is illustrated. The importance of proper attitude, motivation and behaviour modification is considered.
- **Role of the Diabetes Team in Promoting Physical Activity.** The importance of patient assessment and exercise prescription is considered in the management of diabetes mellitus. Patient education is stressed for better compliance, enhanced motivation and changes in behaviour.

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Numb Toes and Aching Soles: Coping with Peripheral Neuropathy, J. A. Senneff (1999), Med Press, San Antonio, Texas, US\$ 19.95 (paperback), US\$ 29.95 (hardback).

This interesting book is written by a patient with peripheral neuropathy and is targeted at fellow patients with neuropathy. John Senneff has experienced neuropathic symptoms for over

ten years, and the book provides the unique insight of an intelligent person whose neuropathy was not diagnosed for several years despite the presence of typical neuropathic symptoms. One of the most interesting sections of the book is the preface in which the author charts his own neuropathic history and describes well the “painful-painless” foot experienced by many patients with diabetic neuropathy. He contrasts the pain he experienced with the lack of feeling and ‘deadening’ of the soles of his feet – “talk about a strange bag of contradictory symptoms”.

The causes of neuropathy are outlined in the first chapter, and the author states that his neuropathy is idiopathic. He refers to his illness using the International Classification of Diseases and suggests that if you have discomfort and difficulty in walking and somebody annoyingly asks what is wrong with you today, you can reply: “I’ve ICD 356.8 disease”.

The painful symptoms of neuropathy are described eloquently in the next chapter and, as Huskisson pointed out years ago, it is indeed only the patient himself who can describe pain.

The remaining chapters are mainly devoted to treatment of neuropathy and include pain medication, alternative medicine approaches, and nutrition. Each section ends with comments from individual neuropathy patients who have used that particular therapy. It was sobering to read the section entitled “Costs and payment assistance”. In the United Kingdom, diabetic patients do not pay for their neuropathic treatments, and this may well be true for other European countries. Looking at patients’ comments on the various standard therapies for painful neuropathy, I was surprised to find that side effects did not feature more prominently. Recent reports suggest that side effects are a predictable and persistent problem for up to 50% of patients treated for diabetic neuropathy.

The chapter on alternative medicine includes many approaches unconfirmed by appropriate medical trials. Most of these carry no risk to the patients, but to see Moxibustion included was surprising. There are published reports about this therapy (in which burning mugwort sticks are held over acupuncture points) leading to ulceration and sensory loss in neuropathic patients.

The book closes with a chapter on “Coping with neuropathy”. Exercise and weight loss are recommended. One neuropathic patient stated: “At least one good thing about weight reduction is there is less of you to hurt!”

This book is not a textbook about neuropathy, but what is of interest to the health care professional is the pervading sense of frustration, desperation, depression, and occasionally anger, that our patients experience. It is unfortunate that the author does not comment more on his personal experience with symptomatic neuropathy.

Although I would not recommend that you purchase this book, it behoves all of us who treat patients with this most distressing disease to understand their suffering and to do our best to alleviate it while providing a thorough explanation of the condition and its likely natural history. Physicians should request this volume from their library and browse through the patients’ recorded experiences.

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