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BRITTLE DIABETES

edited by John C. Pickup
Blackwell Scientific Publications

The contributions of experienced clinical investigators from the United Kingdom, United States, Denmark, Italy, and Germany compose this well-written book on a topic of current debate. In the introduction, Drs. Harry Keene and John C. Pickup set the tone by acknowledging that brittle diabetes is “an emotionally, highly charged subject” with “controversy about its definition.” By defining intrinsic metabolic instability of glucose, they provide a background for what is meant by the term “brittle.” This discussion is appropriate—indeed, it is necessary—because the term has been widely used in the clinical literature without attention to careful definition.

The remainder of the text is divided into three segments. The first, “Clinical Problems of Brittle Diabetes,” consists of three chapters describing clinical features of intrinsic metabolic instability in children, similar features in adults, and finally, in a group of patients unresponsive to attempts at rigorous control with subcutaneous insulin infusion. The authors’ experience in both direct patient care and clinical research in their respective areas enhances the practical applicability of the section.

The section about pathogenesis of brittle diabetes includes such topics as the effects of residual beta-cell function, antibodies to insulin, illness, and response to stress, as well as factors that may affect insulin absorption and action. A reasonable balance between primary metabolic and psychosocial considerations is maintained.

The third major section, which deals with treatment approaches, is introduced by a chapter listing conditions that may contribute to unstable control. The remaining chapters, which make up nearly a third of the book, evaluate various ways to optimize insulin administration. Continuous subcutaneous insulin infusion, methods to enhance insulin absorption, and intraperitoneal and intravenous insulin administration are discussed.

Brittle Diabetes is likely to be useful for both primary

care physicians and physicians who have a large diabetic-patient practice. The first chapters present a general overview aimed at the former audience; the latter chapters will be of interest to physicians willing to undertake management of patients whose diabetes is difficult to control. An inevitable conclusion to be drawn by anyone reading this book is that despite international expertise and complex clinical investigations, the servomechanisms of glucose regulation used by the pancreas and liver of patients without diabetes are not easily mimicked by any of the currently available techniques for insulin administration. Until more sophisticated methods of glucose regulation are available, brittle diabetes will continue to frustrate even the most sophisticated clinicians.

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DIABETES IN PREGNANCY: TERATOLOGY, TOXICITY AND TREATMENT

by Lois Jovanovic, Charles M. Peterson, and Kurt Fuhrman
Praeger Publishers

This book is designed to be a comprehensive overview of laboratory and clinical investigation of diabetes in pregnancy as well as give current recommendations for treatment. It is written for physicians in all stages of training as well as both primary care and specialty practitioners.

The teratology segment describes the risk for and type of congenital anomalies associated with diabetes mellitus, based on animal and human data. Most of the information in the toxicity section relates to human pregnancies. The emphasis is on complications other than congenital abnormalities, such as macrosomia, growth delay, and fetal metabolic consequences, as well as some theories for the use of glycosylated protein determinations and human insulin in pregnancy. The treatment

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section discusses screening for gestational diabetes, as well as management of diabetes in pregnancy. The latter includes dietary management, other endocrine disorders associated with diabetes, and fetal surveillance.

Diabetes in Pregnancy was written by experts in the field. The editors, who have themselves published extensively, wrote some of the chapters. The absence of Dr. Norbert Freinkel as a contributor is conspicuous to anyone who has followed developments in this field for the past 10 years.

The structure of the book is such that each chapter can stand as an independent unit—an advantage to anyone who wishes to use the text as a resource and focus on selected topics. Each chapter is well developed, and most have extensive (and appropriate) bibliographies. However, there is much repetition on some fairly basic concepts, including the Peterson hypothesis. This hypothesis, which links many of the observations in fetuses of diabetic mothers by postulating that maternal hyperglycemia results in fetal insulin secretion with resultant fetal fat storage, is repeated frequently. Discussion of such subjects as frequency and nature of congenital anomalies and basic descriptions of the metabolic changes that occur throughout pregnancy are similarly repetitious.

Most chapters are based on useful interpretations of carefully presented data. The section by Dr. John Kitzmiller about macrosomia in infants of diabetic mothers is outstanding and includes more than 300 references. While most chapters are well-written, the quality of writing varies markedly from chapter to chapter.

Also, the book suffers from some serious editorial problems. In addition to the repetition of much of the data from chapter to chapter (which could have been obviated by a concise introductory section), this reviewer found the following particularly disturbing:

1. English is not the first language of many of the authors, and the editors have not corrected the text to make the book more readable. In some cases, comprehension is difficult (e.g., on page 79: “The induction of congenital skeletal malformations is of a complex nature where the metabolic derangement requires a period to insult, as has been discussed in the earlier chapters. The prevent effect of insulin therapy with reference to this timing is indubitable.”)

2. The editors have not carefully maintained a distinction among the three major segments. Chapter 10, for instance, deals with congenital anomalies, but is in the toxicity section. The beginning of Chapter 10 discusses etiology of congenital anomalies, which is more consistent with the teratology segment, and the end of the chapter discusses prevention and prenatal diagnosis, which should be in the treatment section.

3. Some glaring inconsistencies are confusing for primary care physicians who wish to use the text as a source. The most obvious involves the question of what screening value for blood glucose to use when testing women for gestational diabetes. In Chapter 13, a value of 130 mg/dL after a 50-g load is recommended, but the authors recommend a value of 150 mg/dL in their chapter about modern management of diabetes in pregnancy.

4. Many typographical errors and minor inconsistencies mar the tables and text.

However, *Diabetes in Pregnancy* would be a useful acquisition for most general medical libraries. The inconsistencies in style and quality from chapter to chapter and the repetition of basic concepts will not be a problem to readers who use selected chapters.

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