
Book Reviews

Diabetes Epidemic and You

Joseph R. Kraft, MD, MS, FCAP

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Joseph Kraft has written a book entitled *Diabetes Epidemic and You*. The subtitle is even more important and timely: *Should Everyone Be Tested? Absolutely Not! Only Those Concerned About Their Future!* In this very speedily readable book, Dr. Kraft outlines the history of diabetes and the discovery of insulin and its assays. He then goes on to relate his experience with 14,384 assays from 1972 through 1998. From there, the author puts together the relationship of insulin levels, blood sugar, and diabetes.

What better individual to bring together a timely body of knowledge. The epidemic of obesity (especially in children) and the number of type 2 diabetics are rising rapidly. Those in the know clearly relate this epidemic to insulin resistance. However, any controversy in the concept is tied up in the pure definition of insulin resistance. Dr. Kraft has one foot in anatomical pathology and another in clinical pathology and has formulated a sizeable bridge to clinical medicine. The initial information in building the bridge he credits with the application of concepts of hyperinsulinemia in clinical otological and neurootological disorders. On the basis of his accumulated data, he has been able to clarify the understanding of any difference in concept between insulin resistance and hyperinsulinemia. They are clinically one and the same but appear to be approached from two different clinical orientations, and these camps are speaking past each other. They share the same risk factors that—left untreated—ultimately result in type 2 diabetes.

Once the two camps recognize that hyperinsulinemia is another way of looking at insulin resistance, the burdensome euglycemic hyperinsulinemia clamp method will not be necessary to evaluate potential candidates for insulin resistance. The oral glucose-challenged insulin assay lends itself to ease of clinical identification and management of insulin resistance and hyperinsulinemia. Using this method of clinical identification results in better management and discovery of insulin resistance before the blood sugars become significantly elevated to diabetic levels. Dr. Kraft illustrates the importance of this concept by using his personal case history.

To complete the book, the second part compiles the age distribution of these oral glucose tolerances with insulin assays. This comparison not so subtly reveals the importance of this testing from age 3 to 90+ years.

This wonderfully written book is suitable both for the public and for the profession. It is a treasure of knowledge and experience not otherwise available. This work should be required reading for all medical students, endocrinologists, otolaryngologists, and anybody interested in their future—and especially for physicians concerned about their future and that of their patients.

Kenneth H. Brookler, MD, MS, FRCSC

“The goal of this book is to awaken the silent millions with undiagnosed diabetes to combat the Diabetes epidemic beginning with you—and I do mean you,” states the author, Joseph R. Kraft, MD, chairman of the Department of Clinical Pathology and Nuclear Medicine, St. Joseph Hospital, Chicago, Illinois, 1972–1998.

In a comprehensive, well-planned manner, the book integrates and provides to the medical community, clinicians, research professionals, and patients an extensive autopsy and clinical pathology experience for a practical approach to the diagnosis, treatment, and control of the pathogenesis of type 2 diabetes. “The earliest diagnosis of prediabetes is hyperinsulin, type 2 diabetes, identified by the oral glucose tolerance test with insulin assay with normal glucose tolerance.”

Since 1921, the oral glucose tolerance test has been an established procedure for the early diagnosis of diabetes. The focus of the reported clinical experience in this book is the clinical application since 1972 at St. Joseph’s Hospital of the oral glucose tolerance test with insulin assays for the early diagnosis of diabetes. “This test has provided the earliest diagnosis of prediabetes and diabetes even when the blood sugars were normal.” This text is the author’s cumulative experience from 1972 to 1998 of 14,384 oral glucose tolerance tests with insulin assays, including subjects younger than 13 to 81–90+ years of age. It provides a source of reference for clinical translation to the early diagnosis of diabetes.

The text constitutes two parts. The first part, entitled “Evolution of the Diabetes Epidemic,” introduces the

reader to the American Diabetes Association and recommendations of the Department of Health and Human Services. The author traces the ancient history of diabetes to the early twentieth-century discovery of insulin and the contributions of the atomic age in the middle and latter part of the twentieth century. These include the Yalow-Berson contribution of the radioimmunoassay of insulin and its clinical application for diagnosing the disease and monitoring its treatment. The evolution of the diabetes experience for patients and professionals is presented in a clear and straightforward manner, highlighted by a focus on the evolution of such issues as “what is normal” for a fasting insulin, hypo- and hyperinsulinemia, gestational diabetes, cardiovascular function, insulin resistance, and the recent metabolic syndrome.

The second part is a presentation of the 14,384 oral glucose tolerance tests with insulin assays. The data presented support the author’s postulate, “Whenever increased insulins of type 2 diabetes were associated with normal blood sugars, ‘occult or prediabetes’ was identified.”

The clinical translation of this experience to the specialty of otolaryngology and the subspecialties of otology and neurotology has been reported for control of balance, tinnitus symptoms, and maintenance of hearing. The author has accomplished his goal to alert the professional and patient communities of the significance of his experience with the oral glucose tolerance test with insulin assays for the early diagnosis of diabetes.

Dr. Kraft’s book is recommended as a source of information to professionals and patients of all ages interested in the maintenance of good health. All join with the author in attempting to influence and limit the clinical progression of the “diabetes epidemic.” This volume is a step forward for achieving the author’s ultimate goal: “the prevention of the pathology of diabetes mellitus and cardiovascular disease.”

Abraham Shulman, MD, FACS

This is a wonderful text both for the public and for our profession because of the tremendous amount of knowledge that reflects what we do know and what can occur later. There is no question that the body’s biochemistry and neural mechanisms rely on our intake of food or exposure to other chemicals. Therefore, as diabetes affects these entities, they also affect our body in relation to all other illnesses. This is a superb textbook that should be read by the public, by members of our profession while in training, and by those who are in practice so that they will begin to understand and expect what is occurring biochemically. It is a book both for the present and for the future, and it deserves great commendations.

Wallace Rubin, MD

Tinnitus: Pathophysiology and Treatment Volume 166 (Progress in Brain Research)

Berthold Langguth, Goran Hajak, Tobias Kleinjung, Anthony Cacace, and Aage R. Moller, Editors

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The book *Tinnitus: Pathophysiology and Treatment, Volume 166 (Progress in Brain Research)* is an excellent contribution to the tinnitus literature. It reflects significant advances in the discipline of tinnitology for tinnitus theory, basic science, and clinical translation for diagnosis and treatment, which ultimately benefits tinnitus patients. Tinnitology is a multidiscipline of professionals dedicated to the study of tinnitus and to the integration of clinical otology with the behavioral and basic sciences. In the varied sections of this commendable book, the contributors recognize that the pathophysiology of tinnitus is a work in progress, reflecting what is known and not known of the auditory system and brain function. (These contributors in the main were participants in a conference in Regensburg, Germany, in 2006, sponsored by the Tinnitus Research Initiative.)

The book focuses on the pathophysiology of tinnitus as identified, theorized, and clinically manifest at this time. The work is divided into six sections: Introduction, Pathophysiology, Epidemiology, Diagnosis and Evaluation of Tinnitus, Treatment, and Assessment of Results. The introduction presents a review of the past and a projection for the future.

The pathophysiology section integrates existing theories of the origin and generation of the tinnitus signal by investigating the animal model. It highlights clinical insights into the role of neural plasticity; tinnitus and pain; relevance of spontaneous activity for the coding of the tinnitus sensation; and clinical reports of tinnitus patient investigations using nuclear medicine imaging and functional imaging of chronic tinnitus with brain positron emission tomography. Especially relevant is the report of magnetic resonance spectroscopy and its potential for increasing accuracy in tinnitus diagnosis and providing a basis for new pharmacological protocols for treating clinical types of tinnitus. The section contains interesting theories of tinnitus that review some current thinking about the role of the dorsal cochlear nucleus, the neural mechanisms of tinnitus, and tinnitus models. A valuable consideration for future volumes would be discussion of the integrated tinnitus dyssynchrony-synchrony theory, which has been reported to have significant clinical translation for tinnitus diagnosis and treatment and correlation with objective measurements of brain activity in tinnitus patients.

The chapters in the epidemiology section focus on single epidemiological issues of genetics, hyperacusis,