

BOOK REVIEW

CELLULAR AND BIOCHEMICAL ASPECTS IN DIABETIC RETINOPATHY, edited by F. Regnault and J. Dubault. \$40.00, 305 pages, 42 tables, 92 figures, 38 photomicrographs, 636 references, one humorous poem. Amsterdam, Elsevier/North-Holland Biomedical Press, 1978.

INSERM, the French equivalent of the NIH, sponsored an international symposium on diabetic retinopathy in Paris on February 2-3, 1978. The proceedings (26 papers in English and a round-table discussion in French) covered most topics of current interest in the field effectively. They were perhaps of value more as a review of recent progress, though some important new findings were reported.

The five papers on vascular endothelium included studies of endothelial cells in tissue culture, an area with exciting potential for controlled biochemical manipulation. Curiously, no mention was made of the discovery by Gospodarowicz that fibroblast growth factor vastly improves vascular endothelial cell growth and survival in culture (PNAS 73:4120, 1976). In an important negative result, Leuenerger and Babel reported that the aldose-reductase inhibitor, quercetin, given orally to streptozotocin-induced diabetic rats, failed to prevent basement membrane thickening and mural cell loss. The result dampens hopes that mere blockage of polyol accumulation will prevent diabetic vascular damage.

The six papers on platelet aggregation reviewed both the known roles of platelet, plasma, and endothelial factors in normal coagulation and fibrinolysis and the controversial reports of platelet aggregation abnormalities in diabetics with vascular complications. Regnault and Romquin studied the interaction of platelets and vascular endothelial cells and found that hyperglycemia promoted aggregation. They speculate that hyperglycemia might promote such aggregation by increasing platelet thromboxane production or by decreasing endothelial cell prostacyclin production. Elucidation of the possible roles of these prostaglandins in diabetic microangiopathy warrants further investigation.

The 10 papers on basement membrane and connective tissue covered well trodden terrain with no surprises.

In a lone paper on glycosylated hemoglobins, Dastugue and co-workers reported a poor correlation between a single HbA_{1c} determination (which presumably represents a several weeks' integral of plasma glucose concentration) and the presence or absence of retinopathy; that confirmed the work of Schanzlin et al., published in *Invest. Ophthalmol.* 17 (Suppl.): 224, 1978. However, a long-term study will be needed with serial HbA_{1c} determinations in order to assess the relationship of diabetic control to development of retinopathy.

The four papers on growth hormone and somatostatin featured an excellent, if partisan, review by Gerich.

The final paper, a clinical description of diabetic retinopathy by Michaelson, contained a good deal of correct and useful information but was somewhat diminished in value by a rambling presentation. It discussed the discovery by Cunha-Vaz of a breakdown of the blood-retinal barrier early in the course of the disease, long before the development of visible retinopathy (for an update, see *Arch. Ophthalmol.* 96:812, 1978).

The publishers have brought these proceedings to press promptly by use of a photo-printing process, and the quality of binding, paper, and photo reproduction is excellent.

PAUL F. PALMBERG, M.D., PH.D.

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MAJOR MEDICINAL PLANTS: Botany, Culture and Uses by Julia F. Morton, *Univ. of Miami, Coral Gables, Florida*. Forewords by Norman R. Farnsworth and Maynard W. Quimby. This beautifully illustrated text describes the principal drug plants which play an important medicinal role. Origin and geographical distribution are detailed along with areas of cultivation, yields, chemical constituents, economic uses and toxicity. The botany, culture, harvesting and handling of medicinal plants are also explored in unprecedented depth. Appendices and a bibliography supplement this attractively produced volume. '78, 448 pp. (6 3/4 x 9 3/4), 109 il. (17 in color), 2 tables, \$49.50

DIABETES AND THE HEART edited by Samuel Zoneraich, *State Univ. of New York, Stony Brook*. (27 Contributors) Authorities from clinical and experimental disciplines explore a wide range of topics related to diabetes and the heart. Special attention is directed to small and large coronary artery disease, the pathogenesis of cardiomyopathies, noninvasive diagnostic techniques, and recent advances in treatment. Information is also presented on the use of newer drugs, the importance of diet, polarizing treatment, and oral contraceptives. '78, 320 pp. (6 3/4 x 9 3/4), 60 il., 37 tables, \$27.50

DAILY MANAGEMENT OF YOUTH-ONSET DIABETES MELLITUS: An Integrated Guide for Patients and Physicians by Richard Sandler and Michael Sandler, *both of Tufts Univ. Medical School, Boston*. An abundance of the most recent information on insulin-requiring diabetes has been compacted into this volume aimed at both patient and physician. The book presents an accurate but nontechnical account of the pathophysiology of diabetes and the practical daily management of the problems it presents. Methods of professional management of diabetes mellitus are given. '77, 102 pp., 11 il., 2 tables, \$8.75

CONTROLLING DIABETES WITH DIET (2nd Ptg.) by Annette Gormican, *Univ. of Wisconsin, Madison*. This volume is written primarily for diabetics who must follow a meal plan which incorporates food exchange lists. Proceeding in a step-wise fashion from simple to more sophisticated aspects of menu planning, the book gives special emphasis to the associated conditions of overweight and diabetes, presents up-to-date information on food exchange equivalents for convenience foods and other food products currently available on the retail market, traces the history of artificial sweeteners, and includes recommendations on their use. '76, 232 pp., 79 il., 3 tables, \$6.75, spiral (paper)

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