

Book Review

A Constant Ferment: A History of the Thyroid Clinic and Laboratory at the Massachusetts General Hospital: 1913–1990. By John B. Stanbury, M.D., 209 pp, illus. Ipswich, Mass., Ipswich Press, 1991, \$20.00.

THE THYROID UNIT AT THE Massachusetts General Hospital, at the midpoint of this century, was the preeminent site in the world for clinical research involving the thyroid. With a very few notable exceptions, most of the physicians involved in thyroid work at that time and for the following several decades either worked in that unit themselves or were trained by those who did. Although Ingbar, who was a good friend of Stanbury's and who knew Means, is not discussed here, the names of these people are nearly an index of leading endocrinologists of the time—Robert H. Williams, later of Seattle and originator of the famous textbook, Rulon Rawson, later of Sloan-Kettering Institute of New York, where Robbins and Rall launched their careers in thyroidology, Jan Wolff of the Wolff-Chaikoff effect, E.B. Astwood, who was not based there but nevertheless often attended the weekly thyroid clinic, and many, many others. They are discussed here in varying detail in the text, with separate chapters reserved for Leslie J. DeGroot and for Earle M. Chapman, and there is an appendix listing the names and current addresses of all "the affiliates of the Thyroid Clinic and Laboratory . . . from 1913 to 1990." A reading of their biographies interwoven with the two other themes—the main pathways of investigation and the involvement in clinical care—provides a fascinating and unique account of the development of our understanding of the thyroid. Every thyroidologist should read it.

It is interesting that James H. Means, founder of the Thyroid Unit and later Chief of Medicine at the MGH, had no special interest in the thyroid when he started on this career in 1913. At that time, the new MGH Chief of Medicine, David L. Edsall, tapped Means as a good prospect for the MGH staff and began by sending Means to the laboratories of August Krogh in Denmark and Joseph Barcroft of Cambridge to study pulmonary gas exchange, since Edsall himself was interested in this topic.

Means, working under the guidance of DuBois and with J.C. Aub and F.G. Benedict, developed the basal metabolic rate (BMR) as a practical clinical measurement of energy expenditure useful on a routine bedside basis.¹ "It quickly became apparent that patients with disorders of the thyroid were among the most interesting to study." The BMR thus became useful as an index of thyroid activity and in following the course of thyroid disease during treatment. The BMR remained in clinical

use through the mid-1950s, when the PBI largely replaced it, and it remains almost unique as an easy measurement reflecting the peripheral action of thyroid hormones. Drs. Means and Stanbury make much of the fact that the BMR, along with measurements of body temperature, blood pressure, and urinary sugar, was one of the earliest quantitative laboratory measurements to be applied clinically. It is also interesting that Means was born the same year Magnus-Levy made his seminal discovery of the effect of the thyroid on gas exchange—1885.

The author dates the origin of "the Thyroid Unit" from 1920, since that was the year weekly multidisciplinary meetings were begun of the physicians, surgeons, and others who worked with thyroid patients. These meetings originally were focused on individual patients and their problems but in recent years have become seminars on problems in the molecular biology and chemistry of the thyroid. As this trend developed, the older clinicians seemed to lose interest, a change perhaps reflected more generally in medical grand rounds in American medical centers today.

Stanbury traces the activities of the Thyroid Unit during the 1930s, which saw the introduction of animal research by Saul Hertz and of radioiodine by Hertz, Means, and Evans; then through the 1940s, with the further clinical applications of radioiodine and the antithyroid compounds and his own accession to the directorship of the Unit in 1949. There is an interesting discussion of the discovery of the usefulness of radioiodine in thyroid work, which was very controversial in the Thyroid Unit itself at the time. This discussion is also available in a recent issue of *The Bridge*.² Stanbury concludes, "Thus, my own view is that the priorities both for investigations of thyroid function and in therapeutics belong to Hertz, Means, and Evans, and my additional perspective is that in these instances the issue of priority is not particularly important." Surely a civilized view, but one easier to take at a distance than close up.

The chapters on radioiodine and on elucidation of the metabolic defects leading to impaired thyroid function and goiters are the most interesting in the book. The latter work generated in Stanbury the idea for the excellent book, *The Metabolic Basis of Inherited Diseases*,³ originally edited with J.B. Wyngaarden and D.S. Frederickson and now in its 6th edition. There are also chapters on studies of thyrotropin and of iodine deficiency.

For older readers, this book is a delightful reminiscence, and for younger readers, it is a necessary review for rounding out one's understanding of the course of thyroid research during the 20th century. It should be on every thyroidologist's shelf.

REFERENCES

1. Means JH 1914 Studies on the gas metabolism and its relation to the body surface in obesity, myxedema, and pituitary disease. Proc Soc Exp Biol Med 12:13.
2. Stanbury JB 1991 The discovery of radioactive iodine. Bridge 2:1-5.
3. Scriver CS, Stanbury JB, Wyngaarden JB, Fredrickson DS 1989 The metabolic basis of inherited disease, 6th ed. McGraw-Hill, New York.

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