

## BOOK REVIEWS

**Handbuch der experimentellen Pharmakologie, Vol. 14, Part 1: The Adrenocortical Hormones. Their Origin, Chemistry, Physiology and Pharmacology.** Sub-edited by HELEN WENDLER DEAN. (In English.) Springer-Verlag, Berlin, 1962. Pp. xxiv + 738, 236 D.M.

THIS is a remarkable book to be highly recommended to all interested in Adrenocortical hormones. The text is entirely in English. It is the first part of an exhaustive review of these hormones which have acquired a great importance in the biology of the vertebrates and a predominant position in human therapy.

The first chapter (Anatomy, chemistry and physiology of adrenocortical tissue) is by the sub-editor H. W. Dean. It includes comparative and developmental anatomy, chemistry and histochemistry (lipids, cholesterol, steroids, ascorbic acid, enzymes, etc.), physiology (with emphasis on the separate control of aldosterone and of the glucocorticoids) and pathological changes in mammalian glands. It is illustrated by 71 figures, excellent microphotographs, many of which are splendid reproductions in colour.

Chapter 2, by J. A. Moore and E. Heftmann, clarifies (because it does not avoid the huge difficulties involved) the chemistry of the natural corticoids, and gives a good review of the chemical synthesis of these substances and of the many modified hormones which are much used in modern therapy (halogen or OH substitution, additional double bonds or skeletal modifications). This chapter also gives, with many useful technical details, the methods for separation and analysis of the corticosteroids present in the glands, the urine, the fluids or the tissues of the organism. This field is particularly difficult because of the low concentrations of these hormones in the body fluids and of their structural similarity. Infrared spectrophotometry, isotope analysis, optical rotation and nuclear magnetic resonance are fully discussed.

Chapter 3, by R. I. Dorfman, deals with the biochemical aspects: metabolism, biosynthesis of cholesterol and of the various corticoids, factors influencing this biosynthesis, etc. Numerous and long tables give a great wealth of information.

Chapter 4, by R. Gaunt and J. J. Chart, discusses quite effectively in 40 pages the effects of the corticoids in general (not only of the so-called mineralo-corticoids) on the fluid and electrolyte balance. Here again, the comparative aspect of the problem is not neglected.

The question of sex hormone (androgens, progestins and estrogens) secretion by the adrenal cortex, of functional overlap between gonads and adrenals, is taken up by E. Howard and C. J. Migeon. In the final Chapter 6, two Swiss psychiatrists, M. Beuler and W. A. Stoll outline briefly the psychological manifestations of hyper- and hypo-activity of the adrenal cortex.

For all the various chapters (except the last one) there is an extensive bibliography not only of American, English, Scandinavian and Japanese authors who publish in English, but also of French, German, Italian, Spanish or Portuguese speaking scientists. The indexes have been carefully prepared: they occupy 78 pages.

The difficulty, in such a collaboration, is to keep a certain uniformity in the presentation of the various chapters by different authors and a unity of conception without removing the flavor of each contribution. In our opinion, the sub-editor has so far been successful although the last chapter (on psychological manifestations) is out of place in this first part which deals with fundamental anatomical, physiological and biochemical problems and not with clinical facts.

For a final judgment, we must wait until the second part has been published, which will include the all-important discussion on pituitary control of adrenal cortex activity and the diseases of this endocrine tissue.

The editing and printing is superb, as usual for Springer.

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