BOOK REVIEWS

Biochemical Aspects of Neurological Disorders

(Second Series)


This book contains a series of 18 lectures given at the Institute of Neurology, Queen Square, in 1964. Nine topics are covered, each from a clinical and a biochemical viewpoint. Although, or perhaps because, the lectures are published in the form they were delivered, they read extremely well. The only disappointment was that one or two clinical sections tended to be a bit brief and superficial. The majority of chapters have detailed and up to date references and the general index is extremely comprehensive.

The topics cover a wide field. Walton discusses the clinical, genetic and pathological aspects of Muscular Dystrophy, while Pennington deals with recent advances in biochemical aspects. Simpson's chapter on Myasthenia Gravis includes his auto-immune hypothesis. Mc Ardle gives an interesting review of chemical transmission across the neuromuscular junction and of the theories on causation of myasthenia.

The lecture on Toxic Neuropathies (Kremer) covers poisons as well as drugs and includes some special techniques in their investigation, while Barnes delves into some interesting biochemical mechanisms in the toxic neuropathy following 4 different poisons. Diabetic neuropathies are dealt with separately by Gilliatt and the biochemical aspects reviewed by Thompson. The lecture on hypoglycaemia (Gautier-Smith) covers etiology as well as effects on the nervous system, while the very extensive review of chemical aspects (Marks) includes useful information on the clinical application of the tolbutamide, leucine and glucagon tests in the differential diagnosis.

Lewins interesting clinical observations on 130 patients with prolonged coma are supplemented by the lecture on local and general biochemical changes following coma (Matthews). Clinical aspects of demyelinating diseases are well reviewed by Henson.
while Cumins contributes an interesting account of lipid changes in experimental and human demyelination and some views on the pathogenesis. Depressive states are discussed by Pratt and Curzon. In the lecture on Genetic Mental Disorders, Slater concentrates on Wilson's disease, Schizophrenia and Huntington's chorea, while Richter gives a detailed account of the biochemical aspects of phenylketonuria, a comprehensive list of genetically determined metabolic disorders, and an interesting discussion on the relation of genes to enzymes.

The editors are to be congratulated on this well produced book, which is a mine of useful information and should prove as popular as its predecessor.

Depression

_A Cambridge Postgraduate Medical Course._

This is a tape recording of a symposium held at Cambridge in 1959. It has been splendidly edited by Dr. Beresford Davies, who is the senior consultant psychiatrist to the United Cambridge Hospitals, so as to be eminently readable and never dull, despite its length.

One hundred and ninety participated in the symposium and among them were many of the most prominent British psychiatrists including the late Dr. W. Mayer Gross, the late Professor A. Kennedy, Sir Aubrey Lewis, Professor E. Stengel and Dr. W. Sargent, as well as a few representatives from other countries. The symposium was divided into four sections—clinical, psychological, neuropathological and therapeutic and each section comprised three or four main papers followed by the detailed proceedings of three to five discussion groups. Every aspect of depression is covered and there can be no doubt that the book will be of value to all psychiatric consultants and trainees. Sir Aubrey Lewis' general review of depressive conditions and Dr. Sargent's paper on the physical treatments of depression deserve especial mention. One cannot help feeling, however, that all the discussion group proceedings been omitted and the book reduced to the main papers it would have commanded a very wide circulation.

As it is its price is so high and its size is so formidable that it will not commend itself to general physicians or general practitioners. A further difficulty is that publication was not possible until five years after the symposium took place and during that five years a host of new antidepressant drugs have become available.

Elastolysis and Ageing


This monograph in the American Lecture Series is written by the leader of the elastic tissue research group at Leeds University. In it Dr. Hall summarises what is known of the structure and biochemistry of elastic tissue and its changes with age.

Elastin, unlike collagen, has no characteristic X-ray diffraction patterns or electron microscopic appearances. It cannot therefore be studied by physical means and chemical methods are essential. The principal technique has been the study of elastolysis, the name given to the new breakdown of elastin by the pancreatic enzymes, elastase and elastolipoproteinase.

Dr. Hall first reviews the properties of elastin itself. He then discusses the enzymes causing elastolysis and the substances which inhibit their action _in vitro_ and _in vivo_. In a final chapter he discusses elastolysis in relation to the process of ageing and atherosclerosis. The susceptibility to elastolysis of elastic tissue in the wall of the aorta is minimal in the young but increases steadily with age. Dr. Hall postulates that this may be due to the loss with advancing years of inhibiting substances which prevent elastolysis in youth. Elastin is a lipoprotein and Dr. Hall suggests that separation of the lipid fraction may underlie the formation of the atherosclerotic plaque.

Dr. Hall gives nearly 300 references including 50 to work by himself or his colleagues but much of the book deals with hypothesis and there is evidently a need for much more research before this complex subject can be crystallised for the general medical reader. At present it is a field for specialists who will undoubtedly be stimulated by Dr. Hall's challenging monograph.

Relations of Development and Ageing


This book presents the proceedings of a conference of the Gerontological Society of America held at Miami Beach, Florida, in 1964.

The contributors are mostly psychologists and sociologists, though there are a few interesting contributions in other fields. Particularly one on age changes in bones by Garn, Rohmann and Nolan.

Much of the psychology is very academic and will prove heavy going for the medical reader, but it is interesting to see the way in which research in gerontology is looking further and further back in an attempt to see the processes of ageing in relation to the whole span of human life. The child is after all father to the man.

ERRATUM:


Section headed Laboratory Tests, p. 632:

1. lines 6 and 7 should read "and will detect differing percentages . . ." instead of "but will not detect . . ."

2. bottom line should read "will range from 5 to 95% according to the severity of the deficiency." instead of "5 to 9.5% . . ."