drugs in man, and its conclusions are therefore open to criticism. I would, nevertheless, thoroughly recommend this book to all physicians caring for patients with epilepsy.

**DW CHADWICK**


This work is based on a series of neurological lectures given to candidates for the Board examination in internal medicine. As such it has a strong American emphasis. It is a multi-author work—some 11 specialists contributing to the 17 sections. These are divided into conventional subject titles as Stroke, Neuropathies, Infections and also by symptom titles as Disorders of Consciousness, Pain, Movement Disorders. Ninety six topics are discussed, some 44 by the editor.

There is a wealth of material covered in these topics which often provide a succinct appraisal of particular problems. In many there is a brief account of relevant anatomy, and often an up to date discussion about pathogenesis. There is emphasis on clinical presentation, and relevant investigations and treatment are discussed. Following each topic are a few key references, none more recent than 1983, with single line annotations. It is difficult to single out individual topics but those by the editor on Stroke (with a good account of the management of patients with asymptomatic bruits) and on Metabolic Disorders, by HO Lueders on Epilepsy, and by Noble J David on neuro-ophthalmic problems, deserve special mention.

There are some criticisms. It is disappointing in a pocket book of readily available information to find no clear guidelines to the anti-microbial chemotherapy of bacterial or tuberculous meningitis. The phrase “specific and adequate antibiotic therapy” does not seem very useful. There is no mention of tetanus and vertigo seems poorly covered. There are debatable points in the investigations: lumbar puncture to aid in the diagnosis of cerebral metastases and angiography in the management of patients with acute strokes certainly carry risks. The material is said to be based on commonly occurring diseases but this appears uneven. More space is devoted to carcinoïd and myoadenylate deaminase deficiencies without mention of thryotoxic myopathy. There are also irritating points: migraine is not mentioned in the index and Olszewski is correctly spelt in the references but not in the text.

The book is in soft covers with spiral bindings, useful for the pocket. It is reasonably priced. It may prove an important source of information for its intended American audience but may have a less secure market in this country where it is not likely to replace the more conventional texts, although it has much to recommend in it.

**T FOWLER**


This book contains eight chapters written by members of leading laboratories involved with neural tissue transplantation research. As such it gives a comprehensive overview of the field. This last statement is given with some qualifications, however, as the material was presented at a neurosciences symposium in 1981 and research in the area has been moving at rapid pace. Nevertheless, the chapters are sufficiently complete to provide a good background to the area and to serve as a reference source.

In the introduction, Gopal Das gives an overview of the main conceptual and technical considerations underlying transplant procedures. His essay includes a historical background. It gives details of survival of grafts with respect to age of recipient, age of donor, characteristics of grafted features, and their interface that develops between the host nervous system and the graft. It also discusses the relative merits of different graft techniques, that is solid vs suspension grafts, and provides definitions of what constitutes successful grafts.

The brain contains certain areas, matrix zones, of relatively undifferentiated cells, which can multiply and differentiate. Walter Kirsch describes features of these zones as they are found in different classes of vertebrates and he discusses their role in both normal development and in the regeneration of the nervous system after brain damage. Matrix zones have a special importance because they can facilitate the growth of other tissue and also because cells from matrix zones retain the ability to migrate and differentiate, characteristics which are essential for transplant success.

If transplants are to achieve adaptive functions within the host, transplanted cells must be able to send forth axons to connect with host cells. Monica Oblinger and Gopal Das, using the cerebellum as the receptor site, describe different aspects of the connections made between transplants and host. They describe techniques of examining the interface, the effects of age of the host, the cellular reorganisation in the host site, and they contrast fibre growth patterns with patterns seen in normal development.

Transplants can also serve a tool to examine other experimental problems. Lawrence Kromer describes the use of transplants to examine the regenerative capacity of the adult central nervous system. Severed pathways in the central nervous system often do not regenerate, but transplants can promote regeneration, which suggests many possibilities for examination of the properties this tissue that allow it to provide a beneficial environment for regeneration. Among other procedures, descriptions of the effects of grafting neurons of major transmitter systems, including cholinergic, dopaminergic, noradrenergic, and serotonergic systems are described, particularly with respect to the effects they have when implanted into a damaged limbic system.

One of the most striking feature of nerve cells is their ability to take on a physiological identity, which not only makes them recognisable but also must be essential to their functional roles. In the developing brain, their maturing individuality does not occur in isolation but must be influenced by ambient events. Raymond Lund and Steven McLoon describe features of the retinal transplantation technique that makes it useful as a procedure for isolating the cells individual developmental goals from the constraints imposed on it by its neighbourhood. They describe research in which retina are taken from rat embryos and transplanted into the tectal midbrain visual area of immature and adult rats. The technique permits examination of such questions as whether the retina develops normally, whether it makes normal connections with the host brain, and how its connections compare with those of other types of grafts. Development seems to depend importantly on the type of tissue grafted; retinal are conservative with respect to their own development and the associations they make with the host, whereas tissue from the cortex may make a number of types of abnormal connections. Ake Seiger describes a somewhat different model system which has the advantages of allowing easy visualisation of graft consequences. Cells of the different central and peripheral monoamine systems are grafted into the