Book Reviews


The first edition of this book, published eighteen years ago, was based on the clinical records, radiographic appearances and pathological material from cases of bone tumour and closely allied diseases which had accumulated in the surgical pathology laboratory of the Johns Hopkins Hospital. Since that time many cases described in the first edition have been followed up and in this, the third edition, there are records of 500 new cases, making the total number of recorded cases over 3,000. This is the impressive background against which the book is written and, from this point of view alone, it must be regarded as an authoritative and indispensable work of reference.

Roughly one-third of the book is taken up by detailed accounts of the primary tumours arising in osseous tissue based on an analysis of approximately 1,400 cases, including 750 of osteogenic sarcoma, 294 of giant-cell tumour and 250 of osteochondroma. This is followed by descriptions of Ewing’s tumour (167 cases), multiple myeloma (90 cases), secondary carcinoma and sarcoma (334 cases) and of tumours invading bone by direct extension. This edition includes a new chapter on tumours of the spine. The rest of the book deals with a large number of skeletal diseases which might be confused with or predispose to true neoplasia. This section, occupying about a fifth of the text and planned to provide guidance in clinical, radiological and pathological differential diagnosis, deals with hereditary chondro-dysplasia, bone cysts, generalised osteitis fibrosa, the many forms of chronic inflammatory bone disease, osseous changes in the reticuloses, and the skeletal dystrophies peculiar to young children. In this edition this section has been enlarged by the inclusion of accounts of monostotic and polyostotic fibrous dysplasia, osteoid osteoma and the skeletal changes in diseases of the endocrine organs. The general text is preceded by a short introduction written by two surgeons: Dean Lewis discusses the interpretation of clinical findings in cases of suspected bone tumour; J. C. Bloodgood deals with the steps to be taken in establishing an exact diagnosis and planning the course of treatment. These essays are commendably brief, attractively written and full of clinical wisdom. The rival claims of radiology and histology in the diagnosis of malignancy are impartially considered. In the first chapter there is an adequate description of the embryogenesis of bone and its relation to the formation of skeletal tumours. A short chapter at the end of the book deals with radiotherapy of primary growths.

It will be obvious from this analysis of the contents of the book that it is far wider in scope than its rather misleading title would suggest. The general treatment of each subject is admirable. The clinical descriptions are graphically written; the very numerous radiological and morbid anatomical illustrations are of remarkably good and uniform quality. Some of the histological illustrations are very instructive and well selected, but on the whole they vary considerably in quality and rather too many of them are photographically poor and would prove of little assistance in the actual examination of a difficult biopsy. The histological descriptions are accurate but in dealing with the histogenesis of primary bone tumours the authors lay themselves open to criticism. They point out that the skeleton does not reach a final static form in early adult life and that under normal physiological conditions it contains cellular foci of undifferentiated skeletal mesenchyme which persist into adult life. It is boldly asserted that it is from such foci in certain specified situations that malignant osteogenic tumours arise, and with equal assurance that osteoclastomata arise in the vascular bone forming tissue which normally replaces calcified cartilage during development. Such attractive hypotheses should not be presented to the reader as well-attested facts. All highly malignant growths show anaplasia and their cells come more and more to resemble those which constituted the tissue of origin in embryonic life. Does every anaplastic tumour arise in residual embryonic tissue? The authors apparently believe that such is the origin of every osteogenic sarcoma. It can be argued with an equal degree of uncertainty that anaplasia is entirely due to a rapid growth, and it cannot be denied that the major lethal factor in osteogenic sarcoma is rapid cellular multiplication. With regard
to the osteoclastomata, if they arise in the young vascular bone which replaces calcified cartilage, why should they be so rare below the age of twenty?

In the reviewer's opinion this tendency to dogmatise about the histogenesis of bone tumours is regrettable in a book which has so many excellent qualities and whose compilation has so clearly involved the authors in so much fruitful labour. For the surgeon who undertakes the heavy clinical responsibility of cases of bone tumour there is no better book of reference.—Geoffrey Hadfield.


This popular book, which is in nearly every house-surgeon's collection, contains an extract from the original preface stating the author's aim to illustrate those practical methods of surgical treatment which are rarely covered in text-books of general surgery. Apart from two sections on infusion and transfusion and an appendix on instruments and appliances, the teaching is entirely on fractures and orthopaedics. It is pertinent to ask whether Mr Farquharson's selection reflects faithfully modern British practice. The casual reader cannot fail to be enchanted with the sight and sound of every page, but the critical reader misses a description of those truly conservative and partially foolproof methods of treatment which do not lend themselves to photographic record. For example, a number of hyperextension manoeuvres to reduce compression fractures of the lumbo-dorsal and even dorsal spinous are shown, but there is no mention of the renaissance of simplicity in the treatment of fractured spines, so ably sponsored by Nicoll from a mining area and by Guttmann from a paraplegic centre. In this chapter the teaching is of a choice pre-war vintage which nevertheless has become unpalatable to those who remember vividly the deplorable effects of hyperextension jackets applied during the stress of the bombing raids. Fractures of the os calcis are reduced by various means, such as hammering, the redresseur, screw-traction and the axial pin, but there is no appreciation of the results obtained by early active movement with freedom from weight-bearing. Possibly undue stress on the full reduction of bone deformity is seen in the treatment of sub-capital femoral fractures. Before pinning, the femur is manipulated into the fullest internal rotation and held there with the foot almost horizontal. The posterior gap opened up in the neck and the stretching of retinacular vessels must on occasion be considerable. Again, impacted fractures of the base of the first metacarpal bone are disimpressed, if need be by taps with a hammer.

Some minor criticisms are that continuous pulp traction by a suture is not in general use; that Denis Browne's 'nut-crackers' for club feet do not appeal to most orthopaedic surgeons; that a walking sandal to control claw toes is impractical; and that anterior flat foot and metatarsalgia are by no means synonymous. The illustrations of surgical instruments include a number of museum pieces. The two pages devoted to eight tourniquets, for example, omit the two in everyday use, namely the Esmarch bandage and some variety of pneumatic tourniquet. Though the author's portable traction table, Braun's frame, Böhler's screw-traction apparatus, and Böhler's iron have each been seen in ten figures already, all four make a final appearance in the appendix.

Mr Farquharson's book is entirely admirable for the clear and concise text and for the excellent photographs and line drawings, but to a considerable extent it must be regarded as a lucid exposition of his own practice in fractures and orthopaedics. With some revision it would have an even wider appeal and could easily be the finest work of its kind.—K. I. Nissen.


How does a muscle cell differ from a bone cell or from a fibroblast? What factors have been at work controlling the development, from indifferent mesenchymal tissue, of such contrasting and specialised types of cell? For many years such problems of "cell differentiation" have fascinated those who study tissues under the microscope. The appearance of different cell types during early embryonic development provides striking examples of progression from unspecialised to specialised cells, and it is in the embryological field that the processes of cell-differentiation have been most closely studied.

Early embryologists regarded the fate of any part of the developing embryo as determined only by the inherent properties of the cells themselves, but experimental analysis has revealed that very often the differentiation of a particular tissue is brought about by outside influences acting on the cells concerned. An important task of experimental embryology has been to explore the nature of these controlling influences,