
The outstanding feature of this book is the fact that it brings together many topics of clinical importance in one volume, previously described in different text books. Congenital abnormalities and especially those of the central nervous system are a major cause of mortality and morbidity in children. The authors have collected appropriate multi-disciplinary and expert contributors to provide a most comprehensive text of these conditions.

The basic sciences of embryology, genetics, physiology and pathology are especially well covered, in addition to radiologic investigation, medical and surgical management. The illustrations are excellent with clear diagrams, good pathological and clinical photographs and up-to-date radiology including ultrasound, CT and MR scanning. A very adequate bibliography is also included.


This book contains the papers presented at the symposium of the Rhineland-Westphalian Society of Nuclear Medicine held in Bonn, West-Germany, in October 1984. The idea of the symposium and the book was to summarise the achievements obtained during the first few years of applying SPECT (single photon emission computerised tomography) scanning techniques using radio-labelled amphetamines and related compounds.

The first 11 papers are dedicated to basic research topics. Four North American and seven European groups present their data. The last seven papers are all from central European groups and deal with clinical results.

The character of the book inevitably results in much variability of quality of these papers and a lack of balance between the topics. Also difficult to avoid are the many repetitions which occur in introductions and descriptions of methods and discussions.

The book itself is well produced but the price is very high considering the small volume and its limitations.

Most of the papers in the first section discuss the radionuclides of the various derivatives of amphetamines (mainly 112mIMPA) and their production, uptake mechanisms, blood distribution, tissue kinetics and metabolism. The short but good paper by Baldwin and colleagues discusses the possible mechanisms of retention of the amphetamines. This shows that the pH-shift mechanism cannot be responsible for the retention of this class of tracer in the brain. Since 112mIMP A and 201TI DDC are dealt with only briefly, without firm knowledge of their respective retention mechanisms, the title of the book seems not quite appropriate. A good short review of IMP uptake in human brains has been given by Bischof-Delaloye and Delaloye. These authors conclude that even if IMP is distributed to and within the brain according to blood flow there is no doubt that other phenomena than flow and probably also other labelled compounds than IMP itself (metabolites) play a role in the final scintigraphic appearance of the brain. Neirinckx and colleagues provide a good review of the requirements of SPECT tracer compounds discussing blood-brain barrier passage and brain trapping mechanisms. They describe in more detail 99mTc-labelled analogues of PAO. Knapp and Srivastava outline new approaches for the development of "imaging" agents to be used in SPECT scanning. The last two papers of the first section deal with the instrumental problems inherent in SPECT cameras. A good comparison is given between rotating gamma camera and multi detector scanners. Also the influence of several types of collimation on the quality of data collection is nicely discussed.

The second (clinical) section is not quite convincing. It is several times stated that...