

Book reviews

Fetal and Neonatal Neurology and Neurosurgery. Edited by M Levene, M Bennett, and J Punt. Pp 618: £95 hardback. Churchill Livingstone, 1988. ISBN 0-443-03713-2.

This is a marvellous book. Professor Levene (neonatologist), Professor Bennett (obstetrician), and Mr Jonathan Punt (neurosurgeon) have managed to compile the latest views of 55 international experts in all aspects of fetal and neonatal neurology. These are presented clearly in a well laid out, well referenced, and aesthetically pleasing large book.

I would emphasise that the book is totally comprehensive from ultrasound of the developing fetal nervous system to intraventricular haemorrhage in the preterm; from assessment of prenatal asphyxia to management and outcome of birth asphyxia; from inborn errors of metabolism presenting neurologically to viral and bacterial infections of the brain.

It is impossible to comment on all 48 chapters, but several are worthy of special mention. Professor Prechtl (Groningen) and Dr L Dubowitz (Hammersmith) take one succinctly through fetal and neonatal neurological evaluation. Later on Professor Birnholz (Chicago) demonstrates, with high quality ultrasound, normal and some abnormal development of the nervous system in the fetus. The next chapter by Dr Pilu (Bologna) and Professor Hobbins (Yale) presents more superb pictures on other pathologies with good illustration of agenesis of the corpus callosum.

Investigative techniques—electroencephalography, evoked responses, magnetic resonance imaging, and magnetic resonance spectroscopy—are summarised by respective experts in the field.

A predictably strong section concerns prenatal, intrapartum, and peripartum asphyxia. Professor Kjellmar from Gothenburg and Malcolm Levene cannot be more up to date on this most important problem and although presenting no solutions, at least provide the reader with a balanced view of what can be done. Finally, the chapter on seizures (Dr J Brown) and neuromuscular disorders (Dr J Heckmatt) are of considerable clinical value.

I have never read a book which combined so well the physiology of the subject while

retaining the clinical message. The content is all 1988 vintage and not one chapter is padding, the standard material obtainable in a general neonatal text book. The price is high so the market will be departmental libraries. I am sure this book will be very highly acclaimed.

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Development of the Human Fetal Brain. An Anatomical Atlas. By Alison Feess-Higgins and Jeanne-Claudie Larroche. Pp 200: Frs 350 hardback. Masson, Paris, 1988. ISBN 2-85598-337.

This atlas covers the development of the fetal brain from 10 weeks' gestation to term. Text and legends to figures are in French and English throughout. Source material was selected from an anatomical collection compiled in the Centre de Recherches de Biologie du Développement in Paris. It is illustrated by black and white photographs and low power photomicrographs that are accompanied by annotated diagrams. Illustrations of the developing brain at three to four week intervals are grouped to show all the external surfaces and sets of whole sections through the brain in frontal, sagittal, and horizontal planes. Gestation and plane of section are clearly indicated at the top of each page. Legends set out briefly gestation, length of survival, body weight, and dimensions as well as dimensions of the brain. All this is preceded by a double page spread of the medial and lateral surfaces of the brain at two to four week intervals for rapid reference.

This is a splendid work, and its appearance is timely. It is not just the pathologist who will benefit from this atlas. The range and availability of imaging techniques for examination of the brain has increased enormously during the last 10 years. This book will be of enormous practical value to those involved with cerebral imaging both prenatally and in the neonatal nursery and is thus an essential reference work for any

department undertaking such work. Its price is modest and I think it deserves a place on the bookshelf of any clinician concerned with cerebral function in the newborn.

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Fetal and Neonatal Growth. Vol 5. Edited by Forrester Cockburn. Pp 211: £37.50 hardback. John Wiley, 1988. ISBN 0-471-91679-X.

Guest editor Forrester Cockburn has drawn contributions from a host of international authorities in the field of fetal and neonatal growth to form volume five in this current series of publications on perinatal practice. The preface describes each volume as being a series of reviews of topical issues. Pursuant to the belief held by the late Professor Alan Moncrieff, that the study of growth and development was the basic science of paediatrics, this particular volume deserves the special attention of all those concerned with paediatric care. The volume consists of 10 chapters of variable length and detail.

A 'gentle' but informative first chapter introduces the genetics of fetal and post-natal growth and highlights the highly complex interaction between heredity and environment that modulate growth. The equally complex hormonal influences upon growth are comprehensively described in the following two chapters, including the role of epidermal growth factors, insulin like growth factors, thyroxine, and growth hormone. Methods of studying growth in the fetal and neonatal period are considered in the next two chapters, with reference to the experimental manipulation of placental growth and development, and the use of Doppler blood flow techniques in the study of fetal growth retardation. Both the principals and practise of this latter technique are described in detail. Excellent sections on the nutritional aspects of fetal and neonatal growth, and hepatic bone

enzymes follow before growth factors occupy two further chapters. The final contribution on growth factors, including milk growth factors, produces an excellent bibliography for those interested in this burgeoning area of research. The penultimate chapter is an extensive and excellent contribution on the adaptation of the fetus to extrauterine nutrition, which should be required reading for students of human biology as well as clinicians. Finally, consideration is given to growth in the first year, with particular emphasis on the endocrine milieu rather than the auxological aspect.

The organisation of the material within this volume could have been improved upon; the five chapters concerned with growth factors from conception to the end of the first year of life could have been consecutive.

Readers interested in the relationship between early growth and long term growth will be disappointed and this aspect possibly warranted a short chapter, but

nevertheless this is a useful, informative, and readable collection of papers.

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Neonatal Anesthesia. Edited by D Cook and J Marcy. Pp 262: £40 hardback. Appleton Davies Inc, 1988. ISBN 0-941022-10-2.

More than half this book on neonatal anaesthesia concentrates on the basic sciences, physiology, and pharmacology, and has the high standard of writing usual in American textbooks. It would prove a useful reference to both paediatric anaesthetists and neonatal paediatricians in training.

The chapters on anaesthetic technique and respiratory care, however, are less

comprehensive and not entirely specific to the neonatal age group, frequently referring to much older children.

A specific discussion on the relative differences between a newly born baby and a chronologically older ex-premature infant of similar gestational age seems an important omission, as does a section on the use of local anaesthetic agents, both for surgery and postoperative analgesia, though this probably reflects different clinical practices across the Atlantic.

The editors state that they wished to avoid the cook book approach and while doing this they have lost some of the usefulness because of omissions to trained paediatric anaesthetists.

This book would provide a useful addition to the library shelf, but because of the scope and price would be unlikely to be 'best buy' for individuals.

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