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BOOK REVIEWS

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Fetal Medicine: Prenatal Diagnosis and Management. Editor André Boué. (Pp 292; £50.00). Oxford: Oxford University Press. 1995. ISBN 0 1926 1904.

With the rapid increase in mapping and cloning of genes for many human diseases, more and more prenatal diagnosis becomes technically possible. Newer methods, such as interphase FISH for prenatal diagnosis of chromosomal aneuploidies, are now beginning to emerge on the clinical scene. Faced with the prospect of being superseded almost immediately, the production of a textbook covering such an expanding field is a daunting task.

Undaunted, Boué *et al* have written a comprehensive textbook which covers a wide range of topics. They include sections on basic cytogenetics and molecular genetics, as well as detailed descriptions of the procedures involved both in prenatal sampling and in sample analysis. The book does not set out to cover all the areas of fetal medicine, and issues such as ultrasound based diagnosis, isoimmunisation, or exchange transfusion are specifically excluded. However, the use of prenatal diagnosis in the management of maternal viral infection is covered, with detailed discussion of the relative merits of specific diagnostic tests. It is clear from the text that a great resource of practical experience in prenatal diagnosis in France has been brought together, and that the authors have a deep understanding of the problems and pitfalls in fetal medicine.

The book is aimed at obstetricians, general practitioners, and paediatricians, to help them address the questions asked by their patients. There is an appropriate emphasis on detection of chromosomal aneuploidies, but the short section on maternal serum screening does not discuss the improved detection brought about by triple marker screening. A large chapter on prenatal diagnosis of single gene disorders covers both biochemical and DNA based diagnosis of a wide range of conditions. For some diseases, there are discussions of the clinical genetic issues for families at different degrees of risk. There is a considerable amount of detail on the specific DNA markers used in different monogenic conditions. All the markers mentioned are RFLPs analysed by Southern blot, which in many cases have now been superseded by PCR based microsatellites, of which there is no mention. The amount of technical detail may be somewhat overwhelming for the general reader, especially as such detail must inevitably become outdated. There is only a brief reference to PCR in the section on molecular methods, which is unfortunate, as PCR is not the mainstay of DNA technology in molecular diagnostic laboratories.

The editor has wisely included a chapter on ethical issues in prenatal diagnosis, and focuses on the ethical implications of "screening" for genetic disease in selected populations, citing the statements of the French National Consultative Committee on Ethics. Boué also rightly emphasises that prenatal diagnosis needs a multidisciplinary approach, and involves obstetricians, clinical and laboratory geneticists, and ultrasonographic expertise.

This textbook also draws together information from different disciplines, and has successfully covered a large area of the management of pregnancies at increased risk of disease. Even though the editor accepts that the volume will rapidly be superseded, the core of this textbook will remain valuable for a considerable time to come.

ANDREW GREEN

Catalog of Teratogenic Agents. 8th edition. T H Shepard. (Pp 542; £76.00.) Baltimore: Johns Hopkins University Press. 1995. ISBN 0 8018 51823.

Champions of the electronic age claim that reference books are now outdated, to be replaced by online databases and CD-ROM based information retrieval. This new edition

of a well known and comprehensive catalog(ue) shows that there is still a place for high quality, well indexed, and up to date reference books. The author has built on the work of previous editions to produce a clear and well referenced book covering the teratological effects of many pharmacological agents, as well as physical agents, maternal viral infection, pesticides, specific occupations, and even such events as a maternal suicide attempt.

The style is reminiscent of other publications from the Johns Hopkins University Press, and the book has been generated by a computer program similar to that used to produce another major catalog(ue), *Mendelian Inheritance in Man*. For each entry there is a presentation of the relevant data in sequence, starting with human epidemiological studies, thence to case reports of teratogenic effects in humans, and finally to animal experiments, followed by a comprehensive reference list. The author wisely does not attempt to classify an agent into a specific grading of severity, but cites the data and allows the reader to make an appropriate interpretation. For some agents, he may preface the entry with a clear, brief summary of the issues for a particular suspected teratogen, or cite a major review of the issue.

The individual teratogenicity of illegal drugs is well covered. The practical issue of the interaction of these agents in a mother who takes several such drugs together is often more difficult to address. The teratogenicity of newer designer hallucinogens is as yet unknown, especially with the variable purity of such agents. The same caveats must also apply for new medicines coming onto the market, as their human teratogenic effects are as yet unknown, and cannot be covered in a catalogue such as this. The point about species variability in thalidomide teratogenicity is well made.

Specific entries dealing with issues such as folate deficiency, anticonvulsants, and cytotoxic agents are clear and to the point. There are the odd transatlantic differences in nomenclature which make tracking a particular agent difficult, but once found the data are well presented. There is a good and interesting entry on the teratogenicity of video display terminals, and Shepard quotes that it is a "shame that we may be terrorizing a generation of women without a clear scientific imperative to do so". This is the only indirectly expressed opinion in the catalogue that I could find, which reflects the clear thinking and scientific approach of the author.

I would recommend this book for its breadth of entries and clarity of presentation. It shows that there is still a place for a good book in a world of electronic information.

ANDREW GREEN

Principles and Practice of Sleep Medicine in the Child. R Ferber, M Kryger. (Pp 254; £33.00.) UK: Harcourt Brace & Co. 1995. ISBN 0 7216 4761 8.

There is much evidence that persistent sleep disturbance is very common and that it can have serious psychological or even physical effects, and yet this topic is often marginalised or ignored in professional teaching and training courses. Sleep disturbance specific to children generally receives even less attention. However, this book would provide a clinician

with an important and up to date working knowledge of this area, including the development of normal sleep patterns, the range of sleep disorders in childhood, and their methods of investigation and management. Details of the basic neuroanatomy, neurophysiology, and neurochemistry of sleep are appropriately contained in the companion adult volume (Kryger MH, *et al*, 2nd ed, 1994), as the intention of the paediatric volume is to focus on the differences between practising sleep disorders medicine in adults and children. This it achieves admirably. Ferber and Kryger's clearly written and well structured book is not only readable and interesting but also a comprehensive account of both theoretical and clinical information. The understanding with which the text is written reflects the considerable clinical experience of many of the authors.

Perhaps the chapters on sleep related breathing disorders are over-represented, although particularly well written. Throughout the book there is also much emphasis placed on laboratory polysomnography as a method of investigation, which may be more appropriate in the USA where facilities for this are significantly more plentiful than in the UK, where reliance on other forms of investigation are more common.

Overall, however, it is difficult to be critical of this well produced book, which represents a significant contribution to sleep disorders medicine and would be of use and importance to anyone involved in promoting children's health.

G STORES

The History of a Genetic Disease: Duchenne Muscular Dystrophy or Meryon's Disease. Alan E H Emery, Marcia L H Emery. (Pp 248; £20.00). London: Royal Society of Medicine Press. ISBN 1 85315 249 8.

I dipped into this book, jealously prepared to find fault with it. Alan Emery has already written two books on muscular dystrophy, and this was the book I had meant to write when I retire. I soon stopped dipping and read it through. It has none of the textbook character of his previous writings. It is my book but much better than I would have written. Marcia Emery has added a hugely important dimension in her work on the 19th century history of the subject. Together, their account of Edward Meryon and his contribution at last does justice to the man and goes far to justify the recent efforts in this country to use "Meryon's disease" as a catch-all eponym for all forms of X linked dystrophin deficiency. Much original work has gone into the biography of Meryon and all libraries of the history and biography of medicine should have this book for this reason if for no other. There is less that is new here about Duchenne, but the authors have done him justice too, and I believe have got the balance right in their assessment of the contributions of these two men. But surely, I hoped, they won't have discovered the running controversy between them, carried out in footnotes, and obscure passages of Duchenne's massive "*De l'Electrisation Localisee*" in its second and third editions? But yes they have. Or found William Gowers' reference to his information on the later family history of Meryon's first case "the Hon George P"? But yes they had. Or found that among Duchenne's cases (Case CII, *De l'Electrisation Localisee*, 3rd ed, 1872: 612-15) a mother had affected sons by two fathers thus providing us with retrospective evidence of X linkage? Well, no they hadn't, but it is not such a critical point after all. But not only is the 19th century story wonderfully well told, but is seamlessly continued to the present day (a 1994 reference to "emerin" deficiency in Emery-Dreifuss dystrophy being excusably added in proof). Emery's clear but detailed account of the step by step development of our understanding of Duchenne muscular

dystrophy (with briefer accounts of other dystrophies) is masterly and full of deep insights about the relative importance of the many men and women who have provided the critical advances or triggered the critical scientific debates. Everyone who has made an important contribution to the history of this disease, including several subscribers to this Journal, will find their name in the author index, and for many of them there is interesting biographical detail. But more importantly than that is the way in which Emery has fully grasped the many stages at which advances in Duchenne muscular dystrophy have reflected or pioneered the progress in genetics and has woven them together to make an important contribution to the history of genetics as a whole. This is a book which geneticists with any hankering after history should own; it deserves to become a collectors' piece. But it also contains enough explanation, without being didactic, to appeal to the much wider readership which it deserves.

DAVID GARDNER-MEDWIN

NOTICE

Gene Therapy of Cancer, AIDS and Genetic Disorders

The International Centre for Genetic Engineering and Biotechnology will be holding the above symposium on 10-13 April 1996 in Trieste, Italy. For further information contact Ms Elisabetta Lippolis, ICGEB, Padriciano 99, 34012 Trieste, Italy. Tel: +39-40-3757332, fax: +39-40-226555.

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