homozygous protein C deficiency. However, a functional protein C (Acticlot, American Diagnostica) concentration of 5% (reference range day 0, 8·5–60%[1]) made homozygous deficiency unlikely. Protein S and antithrombin III concentrations were normal.

Within 24 hours of the administration of 10 ml/kg of fresh frozen plasma there were visible improvements in the skin lesions and cerebral and renal function. By 7 days the infant had completely recovered. Fresh frozen plasma was given daily and then second daily until the 23rd day by which time the protein C concentration had risen to 35%. By 6 months the protein C concentration was within the adult range (55–186%).

Neurodevelopmental assessment at 9 months of age showed, a normal infant. The parental protein C concentrations were normal.

Protein C concentrations are known to be low in healthy neonates.[1] Therefore previous authors have advised caution in evaluating infants with apparent protein C deficiency.[2] The finding that purpura fulminans, previously only associated with homozygous deficiency, may also occur in transient protein C deficiency, further highlights the care that must be taken in evaluating infants with low protein C concentrations.

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1 Bennhagen R, Holmberg L. Protein C activity and antigen in premature and fullterm newborn infants. *Acta Paediatr Scand* 1989;**78**: 34–9.
2 Manco-Johnson MJ, Marlar RA, Jacobson LJ, Hays T, Warady BA. Severe protein C deficiency in newborn infants. *J Pediatr* 1988;**113**: 359–63.

BOOK REVIEWS

Foetus into Man. By J M Tanner. (Pp 280; £6 paperback.) Castlemead Publications, 1989. ISBN 0–948555–24–6.

This is the second edition of an excellent book describing the journey of physical growth in terms that Professor Tanner hopes 'the biologically unsophisticated reader will understand and the biologically sophisticated approve'. They certainly will!

Human growth is described from conception through embryogenesis, fetal life, the transition at birth, infancy, and childhood to maturity at adolescence. The main outline and chapter contents closely follow those of the first edition but they have been all brought up to date, and some extensively rewritten. There is a valuable bibliography at the end of the book that contains for each chapter some key up to date references and suggestions for further reading for those interested to pursue in greater depth the aspects covered.

Topics covered in 12 chapters include the features of the growth curve; the complex mosaic of differential growth and compositional changes of the body tissues and organs; and factors that regulate and organise growth. Influences on prenatal growth and subsequent size at birth; chromosomal and endocrine control of sexual dimorphism throughout childhood; and a masterly description of puberty with its endocrine regulation lucidly explained are also included. Other topics are the outcome of interactions between genetic make up and the environment, including a particularly well updated account of the effects of nutrition on growth and auxological characteristics of various races, and standards of normal growth with useful charts and figures for practical use in the clinic. Especially welcome is a section on what must be one of the most remarkable aspects of the growth process, 'catch up' growth. The book is rounded off with a succinct account of some common disorders of growth.

The text is written in Professor Tanner's well known inimitable and personal style that has little difficulty in attracting and maintaining the reader's attention. But the ease of this style should not be allowed to conceal the tremendous amount of factual information that is contained. The principal objective of the book is to describe human growth to such diverse audiences that might include teachers, practitioners, students, paramedical workers, and parents and I find it difficult to imagine how any of these groups will not derive benefit and enjoyment from the book. There is something in it for everyone, from the concerned parent of a short boy to the paediatrician dealing in the clinic setting with a difficult growth problem.

I will continue to recommend this book to my students as compulsory reading in their child health course and for those preparing for postgraduate diplomas. Were the many professional workers both in hospital and the community who are at some time involved in problems concerned with the physical growth of children to have this book on their shelves for immediate reference far fewer misconceptions and misunderstandings would arise. Unnecessary clinic referrals would decrease. A lot of parental anxiety would be removed, and the current eagerness for manipulating the growth curve of normal children would be less enthusiastically applied.

D P DAVIES
Professor of child health

Food Intolerance in Infancy. Edited by Robert N Hamburger. (Pp 317; $47·50 hardback). Raven Press, 1989. ISBN 0–88167–545–8.

I suspect that many British paediatricians have a sneaking mistrust of allergists. There is also a reluctance to ascribe every childhood symptom to food allergy. Although the diagnosis of cows' milk allergy has achieved widespread acceptance, there is an impression that food allergy has a certain social cachet and goes with other trappings of affluence. Although one would expect bona fide food allergy to be more common among the socially deprived, in practice it seems to be less prevalent among those who cannot afford expensive exclusion diets. The editor of this multiauthor book recognises this scepticism about food allergy in the introduction. Throughout the book there is a well balanced approach avoiding statements about food allergy which are not supported by scientific data.

The book is essentially the edited proceedings of an international symposium on food intolerance and food allergy. The book consists of five sections and the first section deals with the immunological and chemical basis of food allergy. This is followed by sections on food allergy in general and the manifestations of cows' milk allergy in particular, which I found especially interesting. The chapters on the effects of cows' milk exclusion diets on sleep disturbance and colic were very thought provoking. However, I am still not sure that I will immediately advocate such a diet as the first line of treatment for children who are referred to me with behaviour problems. Dr Eastham's chapter provides a timely reminder of the possible disadvantages as well as potential benefits of soya protein formulas.

I found the section on the Carnation hypoallergenic formula the least interesting and least relevant part of the book. It was the only section of this otherwise excellent symposium to include the name of the sponsors and seemed to be the least objective scientifically. I remain to be convinced that the hypoallergenic formula is superior to protein hydrolysate formulas that are currently available. As Dr Hamburger himself pointed out 'just how hypoallergenic is the new formula?'

Overall I warmly welcome this book which will be of interest to general paediatricians, paediatric gastroenterologists, and immunologists. It should certainly find a place in every paediatric library and will also be of interest to some general practitioners and health visitors.

A W BOON
Consultant paediatrician

The Pediatric Spine III: Cysts, Tumors, and Infections. Edited by Antony Raimondi, Maurice Choux, Concezio Di Rocco. (Pp 215; DM 228 hardback.) Springer Verlag, 1989. ISBN 3–540–96804–0.

This small volume, the fourth in the ongoing series of publications entitled *Principles of Pediatric Neurosurgery*, concerns itself with certain aspects of the paediatric spine. The purpose of the series is to present the reader with an updated comprehensive view of selected topics in paediatric neurosurgery. The volumes are appearing at a greater frequency than one per year and rapid advances in a particular field, or a sense of previous neglect, dictate the choice of subject of each book. While there is a strong transatlantic presence among the contributors, the three principal editors are European and each volume is multiauthor. The series is written mainly for paediatric neurosurgeons and those training in the field, but both the current volume and the previous issues contain much of interest to the paediatric neurologist, oncologist, radiotherapist and neuroradiologist, as well as the general paediatrician and paediatric surgeon.

In the present issue, intraspinal tumours occupy at least 50% of the text, and the discussion is detailed and very practically orientated in terms of neuroradiological protocol, surgical approach, and radiotherapeutic considerations. Reproduction of imaging techniques (myelography, computed tomography, and magnetic resonance imaging) is first class

throughout. The bibliography is extensive, although there are disappointingly few recent references. There are excellent sections on discitis and other spinal infections, the management of the neurogenic bladder, and there is a very clear perspective on the rare childhood syringomyelia. The book's wider appeal is confirmed by a useful chapter on non-surgical diseases of the spinal cord presenting as surgical problems.

This type of publication is an alternative to the increasingly heavy, increasingly expensive, large multiauthor reference book. Its main advantage is its convenient size and kinder price, and of course the format allows the reader to select only those volumes in which he is truly interested. The whole series should be available in the library for reference, but it is likely that those practitioners regularly involved in the management of children with spinal cord disease will wish to have their own copy of the current issue.

G F COLE
Consultant paediatric neurologist

Cystic Fibrosis: A Guide for Patient and Family. By David M Orenstein. (Pp 225; $22·50 paperback). Raven Press, 1989. ISBN 0–88167–486–9.

This book does not cross the Atlantic well. I found myself irritated by the unfamiliar abbreviations which pepper the text (for example—PD means postural drainage, CPT means chest physical therapy) and the American slang 'gotten' and 'shot', but these must be very familiar to the American patient.

It is stated that the book is written for cystic fibrosis patients and their families especially in the first few months after diagnosis. It is certainly comprehensive, it explains much of the medical terminology, and gives detailed explanations of both the pathophysiology in cystic fibrosis and all the complications of the disease. I think the parents of my newly diagnosed children would be appalled to read it. Approximately one third of the book is devoted to aspects of daily life and psychology. This is unbalanced with an extraordinary chapter on exercise taking up 14 pages, 'daily life' being allocated six, and 'cystic fibrosis in adulthood' only four. I had small quibbles in each chapter but the chapters on 'the gastrointestinal system' and 'family life' were probably the best.

The major trans-Atlantic differences are in treatment. The approach, the drugs used, and the medical system for delivering care all differ and this makes the book unsuitable for a British lay readership. It is clearly a financial nightmare to have a child with cystic fibrosis in the USA and young adults are advised to look at company health insurance plans before applying for a job. Long live the NHS.

A H THOMSON
Consultant paediatrician

Manual of Pediatric Hematology and Oncology. Edited by Philip Lanzkowsky. (Pp 456; £26·50 paperback. Churchill Livingstone, 1989. ISBN 0–443–08607–9.

The opening sentence of the preface cautioned me about this book. Claiming to represent 'the synthesis of personal experience of three decades of active clinical and research endeavors', I hoped I would find a balanced critique of the field from an experienced clinician but a quick ruffle through the pages left me uninspired. An impression of text interrupted by endless lists and tables, the format reminded me of the books I clutched when revising for membership. The author, aided by three other contributors, ambitiously aims to provide a concise, practical, readable, and up to date book about paediatric haematology and oncology, of value for the medical student and the practising specialist alike. It is not surprising that he fails to achieve this.

The book is divided almost equally between haematology and oncology with a chapter on leukaemia providing the interface. The chapter headings are predictable and I applaud the attempt to emphasise clinical presentation. A short chapter on lymphadenopathy and splenomegaly provides some good clinical advice in a form difficult to find in other texts but was flawed, as elsewhere in the book, by too many lists and tables. There was, too, an unnecessarily complex discussion of the 'visceroptosed' spleen masquerading as true splenomegaly (what have I been missing all these years?).

The preface apologises, quite reasonably, for a dogmatic approach but suggests that the contents would offer a consensus view. I was surprised, however, at the relative balance given to different topics and there were important omissions. The section on haemoglobinopathies was placed deep in the chapter on haemolytic anaemia, attracting little prominence for these important diseases and it is wrong that any discourse on sickle cell disease omits at least a mention of both antibiotic prophylaxis and pneumovax. Haemophilia is dismissed in four pages and there is no reference in the whole book to AIDS, particularly extraordinary as the authors all come from New York.

This imbalance is manifest in the oncology sections too. Retinoblastoma has as many pages as neuroblastoma, and germ cell tumours more than brain tumours. There is no epidemiological overview and almost nothing on late sequelae of treatment, yet there are pages of chemotherapy details that will all too soon be out of date. Greater attention to the general principles of treatment would have been welcome and my gladness at seeing a chapter on supportive care evaporated when I found metabolic problems and tumour lysis dispatched in half a page and some unnecessarily complicated advice about transfusion support. Psychological issues are dealt with in three lines, suggesting merely that the reader should look elsewhere. As this was the last section of the last chapter in the book I found this a sadly fitting epitaph.

There is much information to be found between these covers but I disliked the presentation and perspective. There are several excellent and more substantial texts available for detailed reading in these subjects and many of the larger general paediatric texts provide a better balanced overview for the medical student or senior house officer.

M STEVENS
Consultant paediatric oncologist

Smith's Recognizable Patterns of Human Deformation. Revised by John M Graham. (Pp 183; £23·50 hardback.) W B Saunders Company (Harcourt Brace Jovanovich), 1988. ISBN 0–72166–2338–7.

This slim and perhaps unique book, a minor spark from D W Smith's magic wand, has now been revised and plumped up by his one time fellow and colleague, John Graham. This second (1988) edition comes some seven years after the first. The text is virtually untouched apart from the introduction, a new short section on 'fetal akinesia sequence', some reorganisation of others and the addition of a few references. All the original drawings, diagrams, and tables remain. The same photographs and radiographs are also to be found but these have been added to and in some places with effect. The resultant change is, therefore, one of polish rather than refurbishment so that those with the first edition will want to look at this new edition keenly before rushing out to buy it. However, those paediatric—especially neonatal—orthopaedic and even obstetric units who do not already have one copy should not hesitate to add it to their shelves and give it equal prominence with those texts that deal with the modern technology.

The message is that deformities of all kinds affecting limbs, trunk, face, skull, ears, and nose may follow if abnormal external pressure either local or general persists during fetal life—whether due to faulty uterine anatomy or pathology, lack of amniotic fluid, or persistent malpositioning. The corollary is that some of these deformities, especially those of late onset, correct themselves to some extent once the constraints disappear but others need to be actively treated—often by the gentle use of counter pressure if asymmetry is not to persist. Club foot, toe deformity, joint dislocation, neurospraxia, scoliosis, mis-shapen noses, ears, and mandibles, and torticollis are all included. There are also sections on craniostenosis, skull moulding, craniotabes, and the special problems created by breech, transverse, face, and brow presentation. The effect of the congenitally abnormal uterus, oligohydramnios, fetal akinesia, extrauterine implantation, and early uterine constraint on body development are reviewed carefully. Lastly the third part covers a clinical approach to deformation and the mechanics of morphogenesis.

This book is not for dipping in nor does it have the Thesaurus quality of the parent volume '*Recognizable Patterns of Human Malformation*'. It is, however, a minor classic on an often neglected subject and deserves to be read by all those who claim to look after babies and their deformities.

J INSLEY
Consultant paediatrician and consultant clinical geneticist

Skeletal Injury in the Child. By John A Ogden. (Pp 930; £115 hardback.) W B Saunders Company (Harcourt Brace Jovanovich), 1990. ISBN 0–7216–2955–5.

It is not often that one is asked to review a book that is so clearly going to become a standard work. Dr John Ogden has undertaken a monumental task and produced a 900 page treatise entirely by himself. This is a feat of endurance and indicates his grasp of this field. Comprehensive cover of the subject starts with general principles and the anatomy of skeletal development. The author has a particular interest in growth mechanisms and chondro-osseous repair which are beautifully illustrated. There is a section on fractures and paediatric diseases and the topic of non-accidental injury is given appropriate cover. The bulk of the book is devoted to a regional analysis of the various injuries that may occur.