

Book reviews

A Synopsis of Minor Oral Surgery (1997)

George Dimitroulis

Publisher: Wright (Butterworth-Heinemann), Oxford

Price: £19.99

ISBN: 0-7236-1094-0

First impressions on picking up a new book are important. The cover diagram on this volume shows a three-sided flap to gain access to the roots of a lower molar, most people these days would be more likely to use a two-sided design.

When glancing through the contents page it good to see an opening chapter on the aspects of practice that need to be considered for oral surgery. However, subsequent chapters may be regarded as insufficient, especially to undergraduates, although somewhat basic for those in hospital practice, as the author leads the reader through chapters on anaesthesia, simple and surgical exodontia, etc.

The medically compromised patient is not considered until Chapter 15, perhaps combining

this with the medical history part of Chapter 2 would have been more logical.

Factual errors occur in several parts. Current UK recommendations regarding patients at risk from bacteraemia and drugs used for antibiotic prophylaxis are not followed.

The standard of the line diagrams varies from excellent to confusing, with many being recognizable (although not all are so credited) from Geoffrey Howe's book *Minor Oral Surgery*.

In short, this is a volume that is not sufficiently structured to aid undergraduate teaching but neither has enough detail to satisfy the hospital clinician or specialist practitioner.

Paul Sheppard

Dental Enamel 1997 (Ciba Foundation Symposium 205)

Publisher: John Wiley & Sons, Chichester, Sussex, UK

Price: £55.00

ISBN: 0-471-96872-2

This impressive volume, the outcome of a symposium which brought together an international group of experts, is an excellent review of the present state of knowledge about dental enamel. Of course, anyone who has, at some time, struggled with the complexities of the development and structure of this tissue might not welcome another book about it, especially one that contains a good deal of the jargon of molecular biologists who seem to speak and write in acronyms. But dentists who do venture into this work will gain insights into some common clinical problems.

The first few chapters review the development

of teeth and the microstructure of enamel. We are then taken through the biochemistry of the mineral and organic components and shown evidence that the highly ordered crystallites might be arranged along some structural feature of the protein. A new character in the enamel story is introduced: this is 'tuftelin', an acidic protein which may be a nucleator and regulator of crystal growth.

Several chapters deal with developmentally defective enamel, the result of genetic or environmental conditions and it becomes obvious that when the techniques of biochemistry, molecular genetics and epidemiology are

combined, important insights will be gained into the pathogenesis of this highly specialised tissue. For example, despite several revisions, the clinical classification of the different variants of inherited amelogenesis imperfecta is still flawed and will only be resolved when the genes and the mutations in those genes have been identified.

The mechanism of fluorosis is addressed, including factors which affect the absorption and excretion of this trace element. Although fluoride can affect amelogenesis in several ways, it seems likely that what is of critical importance is the inhibition of the enzymic degradation of amelogenins and therefore the maturation of the tissue. Many other conditions, such as mechanical trauma and diseases of childhood, also produce enamel dysplasia. Here, the common

aetiological factor could be the hyperaemia which probably occurs around the enamel organ.

Finally, we are brought up to date with clinical practice in, surprisingly, periodontology. There is evidence that the epithelial root sheath secretes enamel matrix proteins onto the root surface when cementum begins to form. This has suggested a method of stimulating the formation of new acellular cement and the reattachment of periodontal ligament fibres by applying enamel matrix proteins to the root surface.

Verbatim accounts of the lively debates which occurred between the formal presentations show that many uncertainties still remain and point to future directions of research into this remarkable tissue.

D. A. Luke

Molecular Biology of Cell Adhesion Molecules (1996)

Michael A. Horton (Ed.)

Publisher: John Wiley & Sons, Chichester, Sussex, UK

Price: £34.95

ISBN: 0-471-96677-0

This neat book, consisting of 12 chapters over 243 pages, attempts to unravel the subject of adhesion for the non-specialist. Each chapter is written by different authors from various scientific backgrounds and as such in differing styles. However, the common theme of cell adhesion molecules continues throughout the book and while the tissues investigated are not always directly relevant to every researcher, the techniques and mechanisms have many parallels. There are clear accounts of integrins, CD molecules and the growing array of ICAM

groups with outlines of the potential cellular activation pathways. This area of research is one which has had major advances over the past 15 years and to many appears a myriad of terms and molecules.

However, as an introduction this work is an excellent starting point and can be recommended for academics and research investigators, especially with respect to the cost, when more recent scientific books tend to be generally over-priced.

Fraser McDonald

A Textbook of Operative Dentistry (1997)

E. S. Akpata

Publisher: Class, London, UK

Price: £39.95

ISBN: 1-872362-605

This book is written by a well-known authority in operative dentistry, and his experience in teaching in non-Western countries makes the

book all the more valuable for students in Africa and the Middle East. The chapters follow a widely accepted format of considering the

disease before progressing to cavities in different tooth surfaces and finishing with the clinical practice of operative dentistry.

The textbook is clearly intended for students undertaking a course in operative dentistry, and its content reflects current practice. It is well referenced with up-to-date citations of recent research to bring operative dentistry into the era of evidence-based health-care provision.

There are a large number of illustrations, a few in colour, and many line diagrams. All help to clarify points made in the text. Reviewers are renowned for finding fault and it was refreshing to find little with which to take issue. There may not be agreement on the positioning of retention grooves as shown in approximal cavities in Chapter 5 because of the risk of pulpal damage. It was disappointing not to find more photographs of natural teeth showing cavity preparations, since teaching in the United Kingdom has moved away from the use of stylized cavities in artificial teeth.

A chapter is specifically devoted to the bonding of restorations to dentine and reviews the development of various systems. It concludes by highlighting the lack of long-term clinical

data on their efficacy, despite the abundance of laboratory investigations.

Two chapters cover pulp disease, and this should be an essential component of a textbook on operative dentistry. The illustrating clinical material is derived from the author's association with West Africa; this will enhance the book's appeal to students in that part of the world.

It is unusual for a book on operative dentistry to have a chapter on bleaching teeth, nevertheless it is useful as it reflects the type of treatment needs in non-Western countries.

Intracoronaral cast restorations are covered briefly, but more notable was the virtual absence of complete veneer crowns which only had a passing reference. It is possible that this is because crowns may be taught in a different course in Saudi Arabia. In the United Kingdom, the emphasis in teaching has moved away from cast intracoronaral restorations to veneer crowns for restoring broken down teeth.

This book will appeal to students in dental schools in Africa and the Middle East, and is to be recommended for covering basic operative dentistry.

T. R. Pitt Ford