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Book Reviews

Cell Adhesion and Human Disease (1995)

J. Marsh and J. A. Goode (eds)
Ciba Foundation Symposium 189
Publisher: John Wiley & Sons, Chichester
Price: £49.95
ISBN: 0-47-195279-6

Cell Adhesion and Human Disease constitutes the published proceedings of a symposium held in London in May 1994. The book obviously has a heavy clinical bias, but this does not preclude the analysis and discussion of the fundamental molecular processes by which cell adhesion, or lack of it, influence disease processes. This is, I think, its strength. Many of the articles deal with the molecular basis for cell adhesion molecule specificity and activity by using appropriate models to dissect the important elements. For example, P-selectin and E-selectin transgenic knock out mice are described which highlight the importance of endothelial cells reacting to vascular injury by using these adhesion molecules to recruit leukocytes to the site of damage.

In addition to highlighting advances in our understanding of the physiological and pathological importance of certain adhesion molecules, this volume describes progress that is being made in the therapeutic application of this knowledge. A major clinical advance in the treatment of ischaemia/reperfusion injury may develop from the finding that functional blockade of the leukocyte β_2 integrin complex in several types of ischaemia/reperfusion (in animal models) prevents most of the injury. There are also a number of articles on various aspects of the role of adhesion molecules in tumour biology. It is interesting to see that some adhesion molecules promote metastasis, while others suppress it.

There is, however, little here of direct relevance to those interested in the adhesion of cells to bone and cartilage. In some ways this is not surprising since most clinical work on these molecules is directed at blood cells and their targets, where many adhesion molecules were first described. However, there are many questions of clinical relevance to skeletal diseases where an assessment of the role of integrins and the like would be of great value. This book does not set out to provide in depth reviews of all aspects of adhesion molecule biology and as long as it as seen of general, rather than specific interest to researchers in the skeletal field, it is worth adding to a library's stock.

T. J. McCann

Introduction to Orthodontics, 2nd edition (1995)

Birgit Thilander and Olli Rönning
Forlagshuset Gothia, Stockholm
Price: SEK 550,00
ISBN: 91-7205-004-004

Just 10 years ago the first edition of this excellent little book was published and made a valuable contribution to the orthodontic literature because of its clarity and usefulness. The second edition has been rewritten and many of the chapters have new authors and their content has been brought up-to-date. The chapter on the development of the dentition has been completely rewritten by Sinikka Pirinen and Irma Thesleff. It is a clear, comprehensive description of the development of the dentition and its clinical implications.

The chapter on classification and aetiology of malocclusion has been rewritten with Carl

Magnus Forsberg dealing largely with the various aspects of malocclusion before describing the causes. This is very clear and is an excellent survey of the aetiology of malocclusion.

Birte Melsen has contributed two chapters: one is completely new on biomechanics and is a useful addition to this excellent book. It introduces the reader to the subject of Biomechanics but has tended to oversimplify the subject and although one appreciates that it is designed for the undergraduate, its appeal will be to postgraduates and orthodontists. They will use it as a stepping stone in their understanding of orthodontic problems and as a reference book to lead to the relevant up-to-date literature. The chapter on orthodontic diagnosis is logically set out and will be of great value to the undergraduate and postgraduate alike.

The two chapters in the previous book on the treatment of dento-alveolar and skeletal anomalies have been combined to produce a much more logical and comprehensive chapter on orthodontic treatment. This is a most interesting and valuable chapter which introduces some of the more recent techniques of implants and transplantation as part of orthodontic treatment. The reader is introduced to various treatment modalities for each type of malocclusion, and there is a most useful checklist for each stage of development.

There is an excellent chapter on orthodontic tooth forces and tissue reactions by Per Rygh. The loss of colour from some of the sections does not in any way detract from their effectiveness. Similarly the chapter by Elnar Kvam on adverse reactions has been modified and brought up-to-date.

The chapter on surgical orthodontics has been incorporated into the orthodontic treatment of the adult and is now written from the orthodontic rather than the surgical standpoint. The last chapter on craniofacial malformation is an excellent introduction to the subject.

This is an excellent orthodontic textbook with relevant references at the end of each chapter which will be of great value to undergraduate and postgraduate students, and will also be of value to the practitioner who wants to keep up-to-date with the advances in orthodontics.

It is a pity that the production of the book has resulted in figures being printed the wrong way round i.e. Figure 9 p46, and others being transposed i.e. Figure 6, p115 and there are still some spelling errors. Nevertheless, this should not detract from purchasing this excellent book.

J. P. Moss