

## Reviews & Abstracts

### Journal of Orthodontics

June 2001

EUROPEAN JOURNAL OF ORTHODONTICS  
<http://www3.oup.co.uk/eortho/>

ANGLE ORTHODONTIST  
<http://www.angleorthodontist.org/>

AMERICAN JOURNAL OF ORTHODONTICS AND  
 DENTOFACIAL ORTHOPEDICS  
<http://www.mosby.com>

THE INTERNATIONAL JOURNAL OF ADULT  
 ORTHODONTICS AND ORTHOGNATHIC  
 SURGERY  
<http://www.quintpub.com/index.html>

JOURNAL OF CLINICAL ORTHODONTICS  
<http://www.jco-online.com>

### Australian Journal of Orthodontics

November 2000

#### Functional appliance treatment assessed using the PAR Index.

D Wijayaratne, M Harkness, P Herbison. Tasmania and University of Otago  
 16: 118–126.

#### Vertical facial pattern and orthodontic stability. Part I: pre-treatment vertical pattern and stability.

N Pinto, M Woods, E Crawford. Specialist practice and University of Melbourne.  
 16: 127–132.

#### Vertical facial pattern and orthodontic stability. Part II: facial axis changes and stability.

M Beatrice, M Woods. Specialist practice and University of Melbourne.  
 16: 133–139.

#### The evolution of orthodontics.

E Storey  
 16: 145–149.

#### Age changes in orthodontic treatment need: a longitudinal study of 10- and 13-year-old children, using the Dental Aesthetic Index.

J Chi, M Johnson, M Harkness. Specialist practice and University of Otago.  
 16: 150–156.

#### The effect of long-term mandibular advancement on the hyoid bone and pharynx as it relates to sleep apnoea

C J Robertson. University of Otago.  
 16: 157–166.

#### Non-extraction Tip-Edge appliance management of a moderate Angle Class II division 1 malocclusion commenced in the late mixed dentition.

R J Kift. Specialist practice  
 16: 167–174.

### The Korean Journal of Orthodontics

Volume 30 No 4 2000.

Articles in Korean with English Abstracts.

#### Treatment of patients with midline discrepancies using three piece basal archwire.

S-J Kim, W-S Son.  
 30: 377–386.

#### A cephalometric evaluation of J hook headgear to the maxilla.

K-R Chung, J-Y Kang.  
 30: 387–398.

#### The relationship between the growth of cranial base and the position of maxilla, mandible in complete unilateral cleft lip and palate patients.

J-H Baek, W S Son.  
 30: 399–411.

#### The effects of pregnancy on alveolar bone turnover during experimental tooth movement in rats.

Y-S Kim, K-S Lee.  
 30: 413–421.

#### Interleukin-1 $\beta$ levels in human gingival crevicular fluid during orthodontic tooth movement.

I-S Kim, Y-G Park.  
 30: 423–431.

#### A study of osteonectin expression patterns in BAPN-induced cleft palate formed rats.

K-C Tae, E-C Kim, S-K Lee.  
 30: 433–440.

#### Effect of estrogen on growth hormone receptor expression of human periodontal ligament cell line.

S-G Hong, Y-M Jeon, J-G Kim.  
 30: 441–452.

#### Effects of recycling on the mechanical properties and the surface topography of Nickel-Titanium alloy wires.

S-H Lee, Y-I Chang.  
 30: 453–465.

#### Torsional moment of orthodontic wires.

K-c Choy, K-H Kim, Y-C Park, C S Kang.  
 30: 467–473.

#### Change of fracture mode of orthodontic resin bracket wings under water immersion thermocycling.

J-H Son, H-S Hwang.  
 30: 475–481.

**Change of shear bond strength of orthodontic brackets according to surface treatment on dental gold alloy.**

J-H Min, H-S Hwang, J-C Kim.  
30: 483–490.

**A study of mandibular positional changes by the stabilization splint in TMD patients.**

H Cheon, Y-G Park, K-R Chung.  
30: 491–507.

**Hellenic Orthodontic Review**

Volume 3 Issue 2. 2000

The articles are in Greek and English

**Congenitally missing teeth in a malocclusion population.**

I Ioannidou-Marathiotou, M A Papadopoulos, E Gianniou, G Kolokithas.  
3: 65–80.

**First permanent maxillary molar morphology and ideal occlusion.**

D I Halazonetis.  
3: 81–87.

**Crown/root relations and root morphological characteristics of permanent maxillary central incisors in Class II division 1 and 2 malocclusions.**

R A Korda, D K Nikolidakis, M D Xagoraris, A E Athanasiou, M A Papadopoulos.  
3: 89–96.

The Journal has received two copies of a new publication entitled:

**Orthodontics Select**

This is produced monthly by Oakstone Medical Publishing, and is endorsed by the American Association of Orthodontists.

It describes itself as a new CDE- accredited newsletter for active practitioners. The contents of 16 orthodontic journals (including the Journal of Orthodontics and the European Journal of Orthodontics) are scanned and presented as 5 articles that critique (sic) and analyse trends in orthodontics, up to 15 abstracts of other important articles with commentary and a true-false quiz (although in both copies that we have received there has been no quiz – which saves your reviewer some potential embarrassment). There is also an original article by ‘a noted expert’.

It is a slightly expanded version of this section of your Journal, i.e. it is a current awareness organ, that will only cost you \$249 if you are an AAO member.

**Glossary of Orthodontic Terms**

First Edition  
John Daskalogiannakis  
Quintessence Publishing Co, 2000  
297pp, Hardback, £65  
ISBN 3-87652-760-0

When I opened the package in which this book arrived, my heart began to sink. To review a glossary seemed scarcely

more appealing as an activity than reading the telephone directory. But before long I was warming to the task. The attractive format, well-written text and clear illustrations all tempt one to dip and browse. If you want to know about the Stockfish Kinetor or superelasticity, Gjessing springs or glycosaminoglycans, differential force or Dillon dimples, you will find an article here, together with informative articles on a wealth of other orthodontic topics.

Although the declared objective of the book is to record the accurate usage of terminology in the current interdisciplinary practice of orthodontics, in practice the book ranges well beyond the simple definition of terms and provides considerable background material on many topics. In this sense it is debatable whether the word ‘glossary’ does justice to its contents.

The book constitutes the initial volume of the series of collaborative productions styled ‘Dynamics of Orthodontics’ covering the whole scope of orthodontics under the sponsorship of the World Federation of Orthodontists. It comes with a CD-ROM which contains the full text of the book with a search facility and other utilities. The generally good standard of book production was marred by the absence of pages 167–182 in the review copy. Although the layout is spacious and clear, the formatting of subsections in long articles (eg ‘Appliance’) is poorly handled and navigation is hampered by subheadings which are indistinguishable from main headings. In a glossary such as this long articles would be better broken up into a series of shorter free-standing articles. There is a lengthy bibliography at the end which is presumably provided more by way of acknowledgement than as a facility for users, as the references are not classified in any usable way.

In compiling a glossary, the question of what and how much to include is inevitably a matter of personal preference, and to satisfy all tastes would no doubt require an encyclopaedia; the balance of this book has been tilted towards basic sciences, mechanics and materials. Even so, there are unaccountable variations in the depth of treatment. Burstone’s geometry classes occupy nearly two pages, surface roughness has seventeen lines, tarnish has fifteen lines whilst malocclusion is allocated a mere three lines and hypodontia two lines. The jargon of modern clinical research is largely absent, with placebo making a lonely entry. UK readers may regret that removable appliances receive only a perfunctory comment. Bracket prescriptions are touched on rather too briefly – details of standard prescriptions such as Andrews and Roth would have added to the book’s value as a work of reference. Similarly the cephalometric entries stop short of adding data on normal values.

Specific items of information can be unnecessarily difficult to locate. According to normal convention entries would be listed under the primary topic, with qualifiers following, as in ‘Clasp, Adams’ or ‘Bone, basal’. Unfortunately this convention has not been followed consistently by the compilers and entries often appear confusingly under the qualifier instead eg ‘Orthodontic magnets’ or ‘Functional Jaw Orthopedics’ leading to much unnecessary page-turning and cross-referencing. The pages are in fact littered with cross references which at a rough estimate occupy around a quarter of the column space. A prime example is the first page of the ‘B’ section where 24 out of 26 entries are cross-references. This is admittedly less of a nuisance in the CD-ROM version where cross-references

become links and using the search facility can take one straight to the correct entry. In fact one gains the distinct impression that the publication may have been assembled primarily with the CD-ROM in mind. Most of the problems could readily be addressed by adding an index to the book, abolishing the cross-references and using the space released to make good some of the deficiencies in coverage.

Despite all criticism, this is an attractive publication which fills a niche and will no doubt be improved in subsequent editions. Practising orthodontists may well enjoy owning a copy to consult from time to time, but it will be of more interest to undergraduate and postgraduate students who would find it useful to have on the library shelves for reference. Few students will actually want to purchase the book as it would not serve as a textbook in its own right; to appeal to the student market it would need to have been more modestly conceived as a pocket dictionary of orthodontics and priced accordingly.

DCT

### **Handbook of Oral Disease Diagnosis and management**

Crispian Scully; Martin Dunitz 1999

As the title suggests, this text is intended as a ready office reference for the diagnosis and management of oral conditions. The book is remarkably well structured to meet this end. The first chapter is organised according to presenting signs and symptoms and subsequent chapters correspond to the sites that are predominately affected in specific oral disorders such as the tongue, lips, gingivae, and palate.

Other chapters address pain of neurological or vascular background and orofacial conditions with a significant psychogenic component. The largest section of the book, representing about half of the text, is devoted to mucosal disorders. Within each chapter conditions are presented in alphabetical order and there is good cross-referencing.

The content is comprehensive and for a given condition there is a systematic appraisal of aetiology, clinical presentation and management. The rigorous adherence to this format and the clear subheadings ensure that the text is both comprehensive and easy to access. The aetiologies are clear and concise and take account of recent research.

There are over 350 illustrations of excellent quality. Of note is the inclusion of several examples of the more common disorders, demonstrating the variable presentation, which can confuse those encountering the conditions infrequently. For example, there are 16 clinical pictures of recurrent aphthous stomatitis. Summary tables are clear and appropriate and a few helpful figures are included, for example, an explanation of the pathogenesis of Behcet's syndrome.

The management of oral disorders is summarised in the relevant chapter and then further details of therapeutic options are discussed in the final chapter on 'Diagnosis and Treatment'. This is a very helpful approach to management which, can be difficult to address without a text becoming confusing or repetitious.

In summary, I highly recommend this excellent handbook as a ready reference in the management of orofacial conditions.

Melanie Wilson

# The 15th British Orthodontic Conference, Brighton, 2000

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The 15th British Orthodontic Conference was held in Brighton from 10 to 13 September. A record number of delegates enjoyed an excellent few days of lectures, socializing, and relaxation in the unseasonably good weather. As well as the scientific presentations, there was a large trade exhibition and a packed social programme.

The conference got off to an early start on the Sunday morning. Following the opening by the conference chairman Dr Frank Haines, the conference began with the UTG short paper presentations of postgraduate students' research projects. As ever, the standard of the research and the presentations was exceptionally high. Jon Machell was the deserving winner for his presentation 'the expression of alpha v-integrin in skeletal muscle myoblast cultures'.

Following lunch, the afternoon session was opened by the society's president Dr David DiBiase. 'A thought for the day' was provided by Reverend Dr Colin Morris, who will be familiar to listeners of Radio 4's 'Today' programme. The first speaker was Professor Jeffrey Okeson from Kentucky College of Dentistry, USA. He gave a very lucid and logical description of the differential diagnosis of facial pain. It was highlighted that not all facial pain originates from the TMJ and so treatment directed at the TMJ is not always appropriate. The important point was made that TMD has a multifactorial aetiology and occlusal problems are not the only factor. The use of orthodontics or other dental procedures to alter the occlusion will not always be appropriate or successful. Orthodontics is only appropriate for orthopaedically unstable malocclusions. He suggested use of equilibration splints for therapeutic diagnosis before embarking upon complex, irreversible orthodontics. His overall conclusion was that careful selection of patients for orthodontic treatment of TMD is essential.

This was followed by an interesting and amusing tour of the society's archive by Professor James Moss. This is currently based at the Royal London Hospital, and includes many fascinating objects. We learnt that gold was being bonded to teeth as far back as the time of the Incas, in 4000 BC and that a Roman physician advocated interdental stripping. Proof that what goes around comes around in orthodontics! The audience was invited to partake in a quiz to identify pictures of eminent orthodontists and orthodontic equipment, with the lucky winner receiving a magnum of champagne.

After tea, Dr Tiziano Baccetti discussed the management of face mask therapy in Class III malocclusions. He advocated treatment, in the very early mixed dentition, as there is greater facility for movement at the sutures in young patients. He also stressed the importance of adjunctive rapid maxillary expansion. Even if there are no posterior

crossbites, he feels that a few turns of the screw are essential to promote sutural opening and true skeletal change.

After a number of AGMs delegates enjoyed the varied night-life that Brighton has to offer. 'The Lanes' were filled with orthodontists meeting up with old friends and colleagues.

The Monday morning was split into parallel sessions. The session in the main hall was chaired by Dr Jonathan Sandy. Professor Ann Marie Kuijpers-Jagtman from the University of Nijmegen, Netherlands, discussed her centre's research in cleft lip and palate. Growth may be affected by intrinsic and extrinsic factors. The latter includes the effects of treatment. When palate repair causes healing by secondary intention the connective tissue architecture alters, with transverse collagen fibres and no elastic fibres. This causes palatal contraction and growth interference. The results of a multi-centre randomized trial of pre-surgical orthopaedics were also summarized. In most variables, there was no difference between groups with and without plates. The group with plates did have smaller cleft widths prior to surgery, but this difference had disappeared by 1 year of age. The use of pre-surgical orthopaedics has therefore been abandoned following the trials as the cost-benefit analysis did not support its use.

This was followed by Chapman Prize winner Dr Nicholas Turnbull discussing 'The effects of orthognathic surgery on the pharyngeal airway dimensions and quality of sleep'. His excellent talk started by defining sleep apnoea and discussing the methods available for assessing the quality of sleep. He detailed the current treatment options for obstructive sleep apnoea before going on to discuss his research. His aims were to see if orthognathic surgery had any affect on the quality of sleep and to assess the effects of surgery upon airway dimensions. A significant decrease in retrolingual airway dimension was found in all patients after mandibular setback surgery, and a significant increase in this dimension after mandibular advancement. There was no significant change in sleep quality, except in patients in the mandibular advancement group with a pre-existing sleep disorder.

After coffee Professor Kuijpers-Jagtman returned for her second lecture; 'Do we really know how to move teeth?'. As clinical orthodontists we might have thought that we did, but our beliefs were challenged in this thought-provoking talk. In a retrospective study she showed that PAR outcome had not changed significantly over a 35-year period and neither had treatment duration. The most important factor in quality of treatment was the orthodontist. She then discussed tooth movement animal experiments. This included one human study on the researcher'

fiancee—dedication beyond the call of duty! It was found that only 10 g are needed to move teeth. Larger forces do not increase movement. The rate of movement depended upon the time of day and was thought to be related to functional activity. There was a large individual variation in the rate of tooth movement. Interestingly, there was more root resorption with continuous forces than discontinuous forces.

Dr Simon Wigglesworth reported on his development of 'The Newport pressure formed functional appliance'. This is similar to the Clark twin block, except that the bases are made from pressure forming materials and the blocks are preformed. Advantages are the speed of production, aesthetics, and cost savings of 50 per cent.

Dr David Morris then presented the three outstanding cases with which he won the Forestadent Young Specialist Award.

In the parallel session chaired by Dr Tim Pollard, Professor Kevin O'Brien opened with an interesting talk on 'The use and misuse of IOTN'. He outlined the main intended use of IOTN and the proportion of the population in the UK who fall into each category. He stressed the importance of assessing demand for treatment in manpower planning, as need for treatment is even throughout the UK. Complexity of treatment should also be assessed when deciding who should be treated in the hospital service. This was followed by an excellent talk by Dr Simon Ash on 'Priorities in the Hospital Service—Is it fair?' He started by outlining the roles of the Hospital Service and what he considered the essential components of priority; need, complexity, and urgency of care. The benefits of a complexity index were discussed before describing research on a simple complexity index used at Whipps Cross Hospital. He then outlined the urgency index used in his department. Dr Chris Kettler then spoke on 'The application of indices in PDS contract'. IOTN has been used by the specialist practitioners in the Bedfordshire orthodontic pilot to ration treatment provision fairly.

During lunch, 23 table discussions took place on topics ranging from a crisis management workshop to implants. For the first time this year an Orthodontic Research Forum was held over the lunch-time. This gave the chance for researchers to give short papers on their current work. The high quality of these papers augers well for the future of orthodontic research in the UK.

The afternoon session was chaired by Dr Laura Mitchell. Dr Richard Parkhouse opened the session talking on the use of Class II elastic traction with the Tip-Edge® appliance. He described methods of reducing unfavourable tooth movements such as upper incisor extrusion. As ever, his clinical cases were enviably well treated. A non-cooperation appliance called an 'outrigger' is now available to ensure the patient wears their intermaxillary elastics.

Professor Okeson then gave his second lecture of the conference entitled 'The differential diagnosis of TMD and orofacial pain: the great challenge'. He started with a classification of orofacial pain. This can broadly be divided into two groups—somatic and neuropathic. TMD was defined as a musculoskeletal pain of the masticatory system, and can be divided into masticatory muscle disorders and TMJ capsular disorders. The latter were illustrated by amazing video footage of cadaver specimens, illustrating a normal functioning TMJ, and various types of disc dislocation with

and without reduction. Professor Okeson described use of an anterior positioning appliance. This moves the condyle onto the disc giving pain relief and hopefully allowing disc repair and adaptation of the retro-discal tissue. He finished by outlining the TMD screening process used in his department.

After tea Dr Baccetti gave a presentation on 'Treatment of post-treatment skeletal changes induced by rapid maxillary expander and face mask therapy in class III malocclusion'. He outlined dry skull and histological studies that showed changes in the maxillary suture pattern from 6 to 12 years. The sutures are patent at 6, but become narrower and more tortuous by age 12 with bony bridges starting to develop. He postulated that the increasing suture complexity interferes with maxillary orthopaedic movement in older children. He compared the results of treatment in young patients (under 7 years old) and older patients (around 10 years old). The net result after follow-up was 2 mm greater maxillary growth in the young patients and 1 mm in the older patients. Younger patients had less side-effects on the mandible than the older patients. Unfortunately, the reduced mandibular growth rate is not maintained after treatment.

On the Tuesday afternoon, the technicians attended their own programme. Mr Massimiliano Parri described the Leone non-compliance appliance used for molar distalisation. Mr Gavin Carmichael and Dr Phil Banks described a method of twin block advancement. An advancement screw was discussed, which avoids the need for addition of acrylic to the blocks. After tea Dr Steve Chadwick discussed the advantages and disadvantages of dual retention with fixed and removable retainers. Mr Roger Harman's presentation was in two parts. The first described the history and functions of the European orthodontic technicians association. The second part discussed the use of orthodontic screws in Germany.

A civic reception at the Brighton Corn Exchange started the evening off for many delegates, and again many carried on into the small hours.

On Tuesday, the first half of the morning session was devoted to 'Media—Friend or Foe?', a very topical issue after the speciality's recent skirmishes with the press. Dr Jonathan Sandler outlined the work of the media committee over the last year, and suggested ways in which all members of the profession can raise the profile of orthodontics in their area. Caroline Holland, News Editor of *Dentistry* magazine, made a persuasive argument for the positive role that the media can play in our public relations efforts. Dr Tim Pollard reported on the role he has played in developing links with the dental magazines. He advocated the proactive rather than a reactive approach to PR. Kim McLoughlin, a media consultant, then gave us a crash course in the skills needed to deal with the media effectively. Many very useful practical tips were passed on to the delegates. Dr Nigel Harradine finished off the session relating his experiences in the infamous 'Dispatches' programme. As we had all suspected, a good deal of his interview had ended up on the cutting room floor when it did not fit in with the producer's agenda.

After coffee Professor Fujio Miura gave the prestigious Northcroft Memorial lecture with the help of his translator. He spoke on his life in orthodontics and on his ground breaking research on bonding agents, super-elastic wires and

the gnathohexagraph. One of the most memorable parts of the talk was video footage of living bone in cell culture, showing images of osteoblasts dividing and depositing bone matrix, and osteoclasts 'eating' bone. Following this, Dr Neville Bass was invested as the new President of the society, in recognition for his outstanding contributions to orthodontics. Prizes sponsored by the society were also presented before lunch: namely, the Intercollegiate MOrth Prize to Dr Shamique Ismail, The Chapman Prize to Dr Ann-Marie Smith, the Research and Audit Prize and the Houston Research Scholarship to Dr Nicola Mandall, and the Laurence Usiskin Student Elective Prize to Gulsharandip Dhillon and Shahla Rahman.

During lunch, poster presenters were in attendance, to discuss their work with delegates. Fifty-one posters were presented, covering the whole range of orthodontic research.

The afternoon session, chaired by Dr Tim Pollard, was devoted to functional appliances. Most of the speakers related the results of the multicentre functional appliance study, co-ordinated by Professor Kevin O'Brien. Professor O'Brien gave the first and last lectures from the group, outlining the study design and results. Early treatment at 8–10 years old gave 85 per cent success rate in reducing the overjet. However, this was almost entirely by incisor movement, with a very small contribution from altered skeletal growth. The second part of the study compared Herbst to Twin Blocks in older patients. There was no difference in the results achieved by the two appliances, but the Herbst was much more difficult and time-consuming to manage clinically. All treated groups showed significant improvement in self-esteem and acceptance by their peers, providing strong health justification for treatment.

Dr Julian O'Neill then told of his 'Clinical experience of early Class II treatment'. He explained the time-consuming process of entering patients on the trial, and the problems involved when trying to keep track of patients in a busy orthodontic department. He gave some tips for those planning to carry out clinical research in their department or practice. Next, Dr Steve Robinson gave a talk on the 'Herbst? Hassle or heroics?' He described the use and (patient) abuse of the appliance. Treatment usually took around 24 weeks. Dr Robinson told the amusing story of one of his patients who consistently broke his appliance and how, although the Herbst is a 'non-compliance appliance', the patient still needs to take good care of it! Dr Robinson finished with a summary of the good and bad points of the appliance—he was clearly of the view that the Twin block is a much easier appliance to manage.

Dr Mike Read gave the final talk of the afternoon on 'A clip on fixed functional appliance'. This is based on removable blocks that attach onto bands in both arches. They are easy for the operator to remove, but have good retention and stability. The talk was illustrated with clinical examples demonstrating the efficiency of the technique. The functional phase usually lasted 5 months and overall treatment time was around 12 months for non-extraction cases. Dr Read outlined design modifications following initial clinical trials of the appliance. Advantages are compliance, 24-hour wear, no 'holding phase' between functional and fixed appliances, and reduced treatment times. Dr Read plans to carry out a randomized controlled trial to further assess the technique.

Over 400 orthodontic dental nurses attended their very successful programme on the Tuesday. In the morning session, chaired by Mrs Alex Moss, Dr Robert Evans lectured on congenital facial deformities, and Dr Giles Kidner discussed various methods of orthodontic expansion. After coffee, Dr Nigel Fox gave an interactive talk on the use of IOTN and Dr Karen Bloom discussed the variety of orthodontic wires available. After lunch the afternoon session was chaired by Mrs Janet Robins. Jacqueline Coyne won the 3M Unitek sponsored prize with her presentation 'Wires on the Web'. Following the competition, Dr Chris Johnston described how orthodontists can help in the treatment of snoring and sleep apnoea. The final talk of the afternoon was by Ann Jones, who described the extended duties performed by orthodontic nurses in Sweden.

In the evening the banquet was held in the Empress Suite at the Grand Hotel. The cuisine was excellent and the after dinner speech was given by Reverend Roger Royle, who is a highly regarded entertainer and BBC radio personality. The speech was hilarious and went down to rapturous applause. An excellent live band, the 'Co-Stars', provided musical entertainment until 1:30 a.m., and many people continued talking and reminiscing in the bar until the small hours of the morning.

Wednesday morning began with the Belle Maudsley lecture given by Dr Rye Mattick on 'Osteogenic distraction within the craniofacial complex'. This fascinating lecture started by describing the work of Illizarov, who developed the technique for lengthening long bones. Distraction of the mandible, maxilla, alveolus and single tooth distraction, were described, illustrated by some excellent clinical slides. Advantages and disadvantages of the technique were outlined. Dr Mattick predicted that in the future distractors could be smaller, multi-directional and operated by remote control.

Dr Ward Smalley from Seattle then gave his first presentation; 'Comprehensive management of partially edentulous patients—optimal space appropriation'. Malocclusions debilitated by loss of teeth are often poorly managed with regard to space management for replacement of missing teeth. This can lead to compromised aesthetics, hygiene and function. Good planning is the key and a multidisciplinary approach is best. Primary teeth should be maintained as long as possible where the permanent successors are missing to maintain the alveolar bone. However, where these teeth are submerging they should be extracted as they may cause a localized alveolar defect. A diagnostic set-up is required to make an implant placement guide for the surgeon. Where implants are to be used to replace congenitally absent upper lateral incisors, the upper canines should be encouraged to erupt adjacent to the upper central incisors and then retracted, as this creates an excellent ridge of bone for the placement of implants. Periodontal defects localized to one tooth can be eliminated by slowly extruding the tooth and bringing the bone with it. The tooth is gradually reduced in height, and eventually extracted once the bone level is corrected. An implant can then be placed. The clinical cases used to illustrate this talk were of the highest standard.

Next, the prizes sponsored by orthodontic companies were presented. Dr Amandeep Johal won the Orthoworld Specialist Prize Travelling Scholarship. Dr Isla Fleming Campbell won the BOTLA award sponsored by Orthocare,

Forestadent and J. J. Thompson. Dr Fiona McKeowen won the Optident MOrth Prize, of a study trip to the USA. The Gunter Russell poster prize was presented to Dr Shirley Cox and team. The Dental Directory Practitioner group prize, which was new for 2000, was awarded to Dr Geoff Glass.

Dr Smalley presented his second lecture of the morning 'Comprehensive management of partially edentulous patients—implant anchorage for the correction of malocclusion'. The importance of good planning was stressed, particularly the need to carry out a diagnostic wax-up of the orthodontic and restorative plan, so that the ideal position of the implants could be accurately determined. This should enable the implants to be placed in the optimal position for final prosthetic reconstruction, as well as for orthodontic anchorage. Production of an accurate surgical guide was

described. This was another beautifully illustrated talk showing the use of implants for anchorage in situations where the required tooth movements would otherwise have been impossible.

Dr Mattick gave the final lecture of the conference under the heading 'firstimpressions.com'. This was an entertaining presentation looking at the information available to our patients on the internet, using search engines and visiting various 'chat rooms'. The BDA and BOS sites were considered very good in terms of the information they provided. Dr Mattick also described possible uses of the internet for the average orthodontist.

Dr Haines closed the conference by thanking all the excellent speakers. The conference continues to grow in popularity each year, and Dr Haines and his committee must be congratulated on organizing such a successful event.