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AOG

JOURNAL

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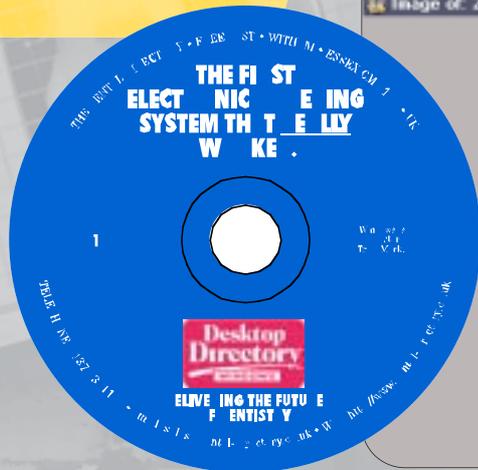
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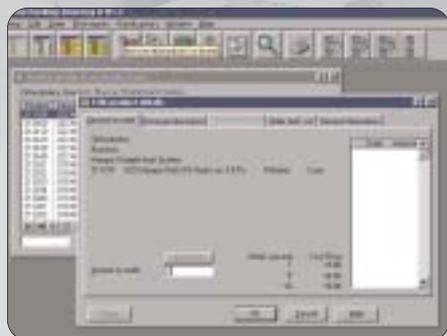
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FROM THE PRESIDENT



Dear Colleague

I am very grateful to you, members of the AOG, for allowing me the honour and privilege of becoming your president. It is a great honour and I accept it with pride.

After having enjoyed a stint on the backbenches as a membership Secretary, I take over the duties discharged by my predecessor, Mayur Bhatt and his executive, who did a marvellous job under difficult circumstances to keep the AOG flag flying as did his predecessors. My sincere thanks to them.

AOG has taken giant steps forward and to maintain the momentum, I had to step into the shoes of our illustrious past presidents, 'no mean feat' One of these is of course our charming devotee, Mr Raj Rayan OBE.

It is with great pleasure we congratulate him on his award of OBE in recognition of his contribution to dentistry and no doubt deserves the AOG version of the same for his endless contribution to our group.

On the 13th March, my wife and I were invited by the Dean and the members of the Board of the Faculty of General Dental Practitioners, to attend the annual dinner at the Royal College of Surgeons.

On the 1st May, we were invited by the President-elect J Stuart Robson, of the British Dental Association to attend the

presidential dinner at Torquay after the BDA conference.

On both occasions we were lavishly entertained our sincere thanks to both organisations.

The highlight of my presidency so far has been the Malaysian adventure.

The AOG was indeed privileged to have been invited by the Malaysian Dental Association to co-host the Malaysian Dental Conference with BSGDS and FGDP. Our thanks go to those involved in organising the trip from the three UK organisations, lectures, those involved with table demonstrations and of course the Sponsors.

It is an inescapable fact that the strength of our group lies in its membership and from the membership comes the financial support and professional representations. Luckily our membership is growing all the time, so much so that AOG has already gained full recognition both nationally and internationally. It has in the past supported projects in the UK, India, Sri-Lanka, Nepal and Malaysia.

To date the AOG has adopted a policy to invite talented speakers, both from home and abroad to present a series of lectures. Apart from the post-graduate commitments to its members, AOG also encourages unity and harmony and harmony among colleagues and friends through arranging charity social events.

I, with my executive, will endeavour to continue the same and hopefully take the AOG to greater heights, and into the next Millennium. To achieve this, I look to you, the members for your continued support.

With kind regards
Saif Najefi

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Page 7 Simple Sedation - Safer Surgery presented by Mr Siva Nithiananda in Malaysia.

Page 9-12 Part 1 of a two part article by Dr Ashok Sethi on 'aesthetic Implant Restorations'. This was presented at the Dental Conference in Malaysia.

Page 13-16 Dr Saif Najefi reports on the Dental Conference in Malaysia.

Page 17-19 Periodontal treatment, a prospective by Dr Gary Hills.

Page 19 & 20 Dr Peter Ilori and Dr Sheila Chauhan comment upon the necessity for extraction's in orthodontic treatment.

MOVEMENT OF LABOUR

RUSS LADWA



"12,000 Bogus Dentists in Italy". This snippet of news item in a recent Time Magazine caught my eyes! Apparently many of them are parking wardens, plumbers and gardeners! The question is how many of them would want to come here?

For many years I have had an interest in what I call "the movement of labour". The current shortage of nurses has been much in the news. Well, this is nothing new and like shortages of Science teachers, happens every few years. In the past, the nurses have been highly trained and being English speaking, would easily get recruited to the US and Canada. We would then look to the Irish Republic to make up our shortfall. They would in turn, have to go to the Catholic orientated, English speaking countries as far as the Philippines and Sri Lanka. So everyone would move up a step, but what happens in the Third World where they desperately need their nurses?

We live in a shrinking world where an event thousands of miles away can affect our livelihood. Let me give you an example. Did you know, that the traditional art of 'belly dancing' in the Middle East, that is passed on from generation to generation is at risk since the collapse of the Berlin Wall? The bigger, lighter skinned Eastern European women are moving into the

belly dancing business in large numbers and are much more acceptable than the local women, who cannot find employment. My fertile imagination cannot help wondering how many stiff upper lipped crusty English gentleman have left their High Street GDPs to have their ivories tickled by well endowed, blue eyed blonde Nordic dentists?

After the Swedes we await the influx of dentists from Poland, Germany, the former Eastern Block and even Brazil (via Portugal once they get their local registration) This is quite apart from the traditional South Africans, Australian, and New Zealanders that have made such a "contribution" to NHS dentistry. (Those dreaded "C" word Bodies have gone recruiting to South Africa.....?)

I hear the unpopular Statuary Exam is to be replaced by an "international" format, to make it universally fair. However the true test of its fairness would be when its details for any (full or partial) exemption conditions are worked out and indeed for whom?

Like Icarus I may be in danger of flying too high and risking my fragile wings - so back to reality. I am supposed to be talking about the movement of labour remember? Soon after my house job I went to work in Germany for the US Army. Cheap labour from here; for the Germans and Americans wouldn't work for that! It didn't work out but I will relate to you any Teutonic experiences another time.

My grandfathers (yes both of them) left India to go to dark Africa in sailing boats to better themselves. My own parents at a late stage in life took a gamble to move here for their children's sake. They moved continents and it worked out well. The question is how can I match what they did.....?

FROM THE EDITOR



Dear Readers

I consider it a pleasure to be able to serve you in my capacity as the editor of this journal. Len as we all know, has set a very high

standard and will be a hard act to follow. I am sure the whole committee joins me in extending a big thankyou for all his efforts and good work.

This issue comes in the footsteps of a very successful conference in Malaysia jointly hosted by the Malaysian Dental Association, AOG, BSGDS and supported by the FGDP (UK) The quality of this meeting was exceptional and from all accounts a resounding success. Raj Rayan has to be congratulated for his efforts to bring this about.

For this journal I have brought together some articles to give you a taste of what was available in Malaysia and some other material covering clinical, financial and other matters which I hope will be of interest. Feedback is an important stepping stone to improvement and your comments and views are very welcome, please feel free to drop me a line or, in this age of technology, send an email. In instances where a response from the author is required I shall do my best to secure their replies.

Finally may I take this opportunity to wish you all the very best for the coming Millennium and I look forward to meeting you during the many social events that are organised during the year.

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THE MINIMUM WAGE £

BY JAY PATEL, HEAD OF NATWEST PROFESSIONS UNIT

From April 1st 1999, the National Minimum Wage became law. This means that employers will now be required to pay a general minimum wage of not less than £3.60 per hour for workers over the age of 21. The law also sets out a minimum wage level of £3 per hour for 18-21 year-olds, as well as a minimum wage level of £3.20 an hour for workers of 22 and over for six months after starting a new job with a new employer if they are receiving accredited training, such as apprenticeship.

An estimated two million workers will benefit from the minimum wage regulations, the majority of whom will be women, many of them part-time. The regulations have been drafted with the intention of not causing unnecessary burdens on business, although workers and employers will need to be aware of their new rights and obligations which will be enforced by the Inland Revenue and the Department of Trade & Industry. Failure on the part of an employer to implement the law will mean he or she will be committing a criminal offence for which there are penalties of up to £5000, enforced by the courts.

COVERAGE AND SCOPE

The national minimum wage applies nationally regardless of size of business, sector, job or region. It is also enforceable regardless of how a worker is paid, whether monthly, weekly, daily or by the number of hours. It includes part-time workers, piece workers, home workers, agency workers, domestic workers, commission workers and casual workers. A worker is anyone who is doing work for an employer and who is not genuinely self-employed, the latter being those who pursue a business activity on their own account. In other words, even those who are not formally classified as 'employees' will be entitled to the minimum wage.

Foreign workers working in the country are entitled to the protection in the same way as any other worker, regardless of how long or short their stay is and it does not matter whether their employer is based in the UK or not. British workers

who usually work in the UK, but are temporarily working abroad, will also be covered.

EXCEPTIONS

The national minimum wage does not apply to workers aged under 18. Also exempt are apprentices up to the age of 26 who are in their first year of training and members of armed forces. These three groups can legally be paid less than the national minimum wage. There is a lower national minimum wage of £3 for workers aged between 18 to 21. The national minimum wage also does not apply to the genuinely self-employed or volunteers nor to people working and living as part of a family, such as au pairs or members of a family who do household chores.

The times when a worker is not entitled to minimum wage includes absences, rest breaks, time on strike and commuter travel to and from work. Time spent travelling and training for purposes of the job should be included however.

POINTS FOR EMPLOYERS

Employers' current payment and employment practices could breach the new law and some employers may have to change their policies in order to comply. For example, employers who intend to make use of the £3.20 rate for trainees aged 22 years and above, will need to have written agreements in place setting out the amount and type of training to be provided. Employers or workers paid solely on the basis of their output or who work unspecified hours, may also need to have arrangements in place with their workers, defining the nature of these arrangements.

Workers cannot be dismissed because they have become eligible for a higher rate of the minimum wage (e.g. when a worker completes six months training or becomes 22 years old) and if a worker is dismissed or victimised when they become eligible for the wage, they can take a case to an employment tribunal claiming unfair dismissal. Workers cannot agree to accept a lower wage than the national minimum wage.

ENFORCEMENT

Employers are required by law to make sure that their workers receive at least the national minimum wage and they may be required by the worker, a compliance officer, an employment tribunal or a civil court, to produce evidence that they have paid the national minimum wage. Employers must keep sufficient records to be able to prove that this is the case. If an employer fails to show records to a worker within 14 days of any reasonable request, a tribunal may impose a penalty.

The emphasis is on employers to prove that they have paid the national minimum wage to workers, rather than on the employee to prove that it has not been paid. Enforcement will be undertaken by Inland Revenue compliance officers acting on behalf of the Department of Trade & Industry. They have the power to issue enforcement notices requiring employers to make up any shortfall in wages or salaries and can issue penalty notices if employers do not comply with enforcement notices.

It is a criminal offence to refuse or neglect to pay the national minimum wage or to obstruct compliance officers. It is also an offence to keep false records or insufficient records for an officer or tribunal to be able to make a judgement about whether the national minimum wage is being paid. There are fines of up to £5,000 for these offences enforceable by the courts.

FURTHER INFORMATION

The Government has set up information helplines for the national minimum wage (0845 6000 678) and there is a Department of Trade & Industry minimum wage web page: www.dti.gov.uk/ir/nmw. Further information can also be obtained from NMW Enquiries, Freepost PHQ1, Newcastle-upon-Tyne NE98 1ZH. To find out more about the range of products and service that NatWest provide to the professional sectors, contact the Professions Unit on 0171 454 6917.

DENTISTRY IN THE RAF

The Royal Air Force Dental Branch (RAFDB) consist of approx. 70 dental officers providing comprehensive dental care for 50,000 uniformed personnel. At overseas units dental care is also provided for their families. The Director General of the Defence Dental Agency (DDA), AVM McIntyre asked that I write this article giving the reasons I joined the RAF and a brief overview of my career in the RAF to the present day.

During my final year I was faced with a dilemma, it seemed likely that I would pass my final profession exams, where I would practice? During my school years I had for a time been a member of the Royal Air Force section of the combined Cadet Force. A career in the RAF had always appealed. There were many choices available to me after graduation, vocation training, hospital work, general practice and the Armed Forces. The Armed Forces offered a reasonable starting salary, which would increase with time, a one-year vocational training scheme and a working environment, which seemed to concentrate on quality care. After careful consideration I felt the Royal Air Force was the best the option of the 3 armed Forces due to my prior experience with them. Another important consideration that must be mentioned was the opportunity to travel, not only in the United Kingdom but also abroad.

After applying for a commission in the RAF a familiarisation visit was arranged prior to the interview. I went to RAF Finningley in Yorkshire and was shown the base and the dental facilities. The interview in 1991 was carried out at RAF Biggin hill near London. Interviews now take place at RAF Cranwell in Lincolnshire and unlike my interviews, which took place on the one day, they are now 3 days long. After completion of finals I proceeded to RAF Cranwell for initial officer training. This is an eight-week course, which prepares dentists for life as an officer in the Royal Air Force.

Over the past 8 years I have postings to Cambridgeshire, Scotland and Hertfordshire with a 4-month detachment to Cyprus and the Falklands islands. At present I am at RAF Bruggen in Germany. RAF Wyton in Cambridgeshire was my

first unit; it was a flying unit, which flew Canberra's Nimrods and Hawks. My detachment to Cyprus was for the completion of my vocational training to gain experience in paediatric in dentistry. During my tour in Scotland at RAF Leuchars I completed my Diploma in General Dental Practice. RAF Leuchars is a front line fighter base, which flies Tornado F3s. On leaving Scotland on promotion I was posted to RAF Henlow in Bedfordshire, the RAF signals Engineering Establishment. At Henlow I was in charge of running two busy dental



centres on my own. At my current unit at RAF Bruggen I am part of a five man dental team which provides comprehensive dental care for service personnel and their families.

I am currently undertaking to sit my MGDS exam. The RAFDB and the DDA have a commitment to training and there are opportunities for MSc. One of the main complaints I have had on discussion with my peers, not only dentists but also other trades, about the RAF is the moving around. This has not been a problem with myself as I do enjoy travelling and seeing new places.

As an officer in the Royal Air Force you are also expected to undertake various other duties as well as performing your primary tasks. In the Falklands I was the officer in charge of a thriving go-cart Club. At Leuchars I had a busy time as officer in charge of the Thrift Shop, mem-

ber of the non-public audit board and a member of the Officers Mess Committee. At Henlow I was again a member of the Officers Mess Committee and was an organiser of social events for my fellow officers. These secondary duties help you broaden your Service Knowledge and form an important part of your annual assessments.

The social life can at times be quite busy. There are various functions which you are expected to attend, sometimes hosting dignitaries, as well as many other well organised functions. RAF life is not only about working hard; there is great deal of playtime as well. The Mess bar is an excellent facility no matter what unit you are on, the costs are roughly half that of a pub, I have made many good friends of all trades during my time in the RAF. As well as an excellent social life there are many other activities and clubs available. There are many sporting activities, which you are encouraged to take part in and if you wish to, you could compete to a high level in. There are also many adventurous training activities organised every year. I have been sailing for two weeks in Portugal and spent two weeks skiing in the Alps. These have been at ridiculously low prices.

I feel that a career in RAF was best suited to me. It is not a career, which would suit everyone, but a factor that should not be considered at all, is being part of an ethnic minority. This has never been an issue with either myself or my colleagues of all trades. The only jibes I have had to endure about my Scottish upbringing and my support of Scottish Rugby Union team and then only from the English.

Becoming a member of the Armed Forces and especially the Royal Air Force is an option that should not be ruled out by any dentist. I personally have had the opportunity to travel, improve my skills as a dentist and gain higher qualification, Stress levels are low. I have made some very good friends during my career and most importantly I have enjoyed myself since graduating.

Sqn Ldr Raghu K Neppalli BDS MFGDP (UK) RAF

SIMPLE SEDATION

SAFER SURGERY

Siva Nithiananda Department of Oral Surgery, Medicine and Pathology UWCM, Dental School, Cardiff, UK



CONSCIOUS SEDATION

A technique in which the use of a drug, or drugs produces a state of depression of the central nervous system enabling treatment to be carried out, but during which communication can be maintained and the modification of the patient's state of mind is such that the patient will respond to command throughout the period of sedation. Techniques used should carry a margin of safety wide enough to render unintended loss of consciousness unlikely. GDC

Indications

General

To allay apprehension, anxiety or fear.
To control gagging

Dental

To reduce stress associated with traumatic or moderately long procedures.

Medical

Mild angina, Controlled Hypertension
Controlled anxiety induced asthma,
Spasticity, Multiple sclerosis
Parkinsonism, Controlled epilepsy

Contra-Indications

Psychological and Social

Needle phobic, Poor veins, A totally unco-operative patient, Psychologically immature individuals, Unaccompanied by adult
Age <16

Dental

Prolonged or difficult procedures

Medical

Allergy to benzodiazepine, Severe systemic disease (ASA 3,4&5), Chronic obstructive airway disease, Pregnancy
Liver and kidney disease, Users of non prescribed drugs, Myasthenia gravis,

Obese patients - BMI<30, Patients taking CNS depressants, potent analgesics, tranquillisers,

PATIENT INFORMATION

A description of dental treatment, Sedation technique, Information in writing, Written consent

DRUGS

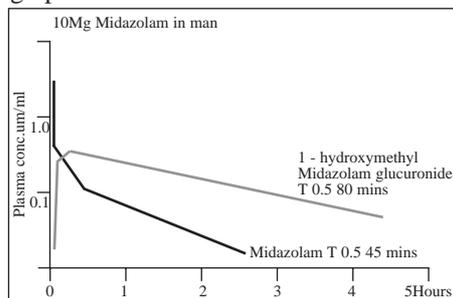
Benzodiazepines

Temazepam

Short half life, No active metabolites

Midazolam

Sedative, Short half life (1.5-3 hours)- see graph



Metabolites of no clinical significance, Potent anterograde amnesia, Minimal local irritation, Enters brain rapidly, High therapeutic index, Reversal by Flumazenil

Nitrous Oxide

Anxiolytic, Analgesic, Anaesthetic

SEDATION TECHNIQUES

Oral sedation

Temazepam: Uncertain absorption, Slow onset, Gastric irritation

Intravenous sedation

Midazolam: Good sedation, Profound amnesia, Certain absorption, Action terminated by re-distribution, metabolism and excretion, Cannot be removed from blood stream

Inhalation sedation

Nitrous oxide and oxygen: Suitable for children and adults Rapid absorption, onset of sedation, elimination and recovery. Marked relaxation, anxiolysis and elevation of pain threshold

Lay-up

Gauze, Mediswab, Disposable 5 ml syringe, 21 gauge green needle, Tourniquet, Cannula, Y-Can or butterfly, Non allergenic tape and cotton wool roll, Pulse oximeter, Midazolam and Flumazenil

Venepuncture

Site: Dorsum of hand, Antecubital fossa
Large vein - junction of tributaries

Signs of Sedation

Relaxation, Delayed response to commands, Slurring of speech, Verrill's sign, Eve's sign

ADVANTAGES OF IV SEDATION

Given remote from operation site, Mouth breathing not important, Excellent amnesic properties, Starvation is not necessary, No nitrous oxide pollution

DISADVANTAGES

Lack of analgesia, Overdose leading to respiratory depression, Once administered cannot be removed, Disinhibition effects, Hallucinations

COMPLICATIONS

Local: Extra venous injection, Tissueing, Intra arterial injection, Thrombosis, Post-venepuncture bruising

General: Allergic reaction, Anaphylaxis, Overdose, Respiratory depression.

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AESTHETIC IMPLANT RESTORATIONS - SURGICAL AND PROSTHETIC HARMONY

SINGLE MISSING TEETH AND MULTIPLE IMPLANTS IN STABLE OCCLUSION. **PART 1**

ASHOK SETHI BDS, DGDP(UK), MGDS RCS(ENG)

INTRODUCTION

Implant dentistry is a prosthetic procedure with a surgical component. The patient invariably presents seeking the restoration of a missing tooth. The aim of the surgical placement of the implant is to enable it to support the planned restoration.

The scope of this paper is to address the treatment of single and multiple missing teeth within a stable occlusion. Full mouth restoration with possible changes in the occlusal vertical dimension will be covered in part 2. This paper will also address the importance of augmentation if aesthetic and biomechanical parameters are to be met.

TOOTH FORM AND POSITION

The size, position, contours, and shade of the tooth will affect the aesthetics of the restoration. It will also affect the manner in which a patient functions, influencing mastication, lateral and protrusive excursions, and speech.

EMERGENCE PROFILE

The hard tissues will provide the bony

contour over which the soft tissues are draped. The amount of attached gingiva and the overall contours will affect the aesthetics of the tooth. The positioning of the implant and the abutment as well as the transgingival contours of the restoration will affect the manner in which the restoration emerges from the soft tissues to provide a natural emergence profile.

LIPLINE

A high lipline when a patient smiles will expose the teeth as well as the gingival tissues. The assessment of the lipline therefore is an important factor in ensuring that the appropriate treatment is provided for the patient. For single tooth restorations the patient and clinician are able to compare the restoration with adjacent natural teeth. This makes the procedure particularly exacting when a maxillary central incisor is being restored for a patient with a high smile line. When embarking on procedures where aesthetics are important, the responsibilities undertaken by the clinician extend to satisfying the scrutiny of a patient who may be both discerning and demanding.

CLINICAL PROTOCOL

A protocol needs to be followed which is methodical and predictable.

The emotional needs and the expectations of a patient must be established. This is coupled with the assessment of the tooth form and position and its relationship to the hard and soft tissues. The treatment needs to be planned, and each stage needs to be carried out satisfactorily prior to proceeding with the next stage.

SINGLE TOOTH RESTORATIONS

The restoration of a single missing tooth with an implant is a predictable procedure, which avoids interference with the adjacent teeth and replaces the missing natural tooth in a way similar to which nature had intended. The phases of treatment are outlined below.

DIAGNOSTIC PHASE

A preview of the intended restoration is carried out by setting up a tooth on a study cast. This is tried in the mouth for the patients approval. The aesthetic and functional verification of the established tooth form and position, can be carried out by



Cross-sectional image of a CT Scan (Simplant) showing an implant positioned between the labial and palatal cortical plates. With the preangled abutment attached lying within the prosthetic envelope defined by the radiopaque marker on the labial surface and the lower incisor. The abutment therefore emerges within the space allocated for the restoration.



An occlusal view of the diagnostic template in situ. The diagnostic template defines the prosthetic envelope (the space available for the restoration). The trial abutment can be seen situated within this space.



Single missing central incisor requiring restoration. An implant may be considered to be the most conservative option as this would avoid the irreversible damage to the enamel of the adjacent teeth.



The definitive abutment attached to the implant can be seen emerging through the healed and contoured soft tissues in the correct position to support the definitive restoration.



Implant positioned in the centre of the ridge with at least 1mm of bone remaining labially and 1mm palatally. The implant is situated in the middle of the ridge between the two teeth.



The definitive restoration can be seen emerging from the well contoured soft tissues. The diastemas have been maintained providing the patient with a natural appearance.

AESTHETIC IMPLANT RESTORATIONS - SURGICAL AND PROSTHETIC HARMONY

constructing a provisional restoration that the patient can wear throughout the treatment period.

A Diagnostic template is constructed which is a hollow prosthetic envelope and it enables the diagnostic information to be transferred to the surgical site. Assessment of the available bone is carried out by means of conventional radiographs, ridge mapping procedures, and relating the provisional restoration to the hard and soft tissues where the implant will be placed.

SURGICAL PHASE

PRE IMPLANT SURGERY

In those cases where there is inadequate hard or soft tissue augmentation may need to be carried out. Adequate width and height can be gained by using autogenous onlay grafts obtained from an intraoral site.

STAGE ONE SURGERY

The implant site is selected in the middle of the ridge and the osteotomy enlarged until at least 1mm of bone remains labially and palatally and 2mm from the adjacent teeth. The osteotomy is prepared between the labial and palatal cortical plates and the burrs are aligned to ensure that no labial or palatal perforation takes place. No damage to the adjacent teeth should take place. The implant is inserted

into the osteotomy until it is level with the ridge.

ABUTMENT SELECTION.

At this time the correct abutment which will be required at second stage surgery in six months time is selected. This is done by using trial abutments ranging from 0° to 45° in 5° increments. The correct abutment is selected and inserted so that the hex of the abutment engages the internal hex of the implant. The position of the implant may be altered by varying the depth to which it is placed to affect the labial palatal positioning of the crown. Furthermore the implant may be rotated so that the hex is positioned in such a way that the trial abutment is correctly aligned with the adjacent teeth within the diagnostic template. This will ensure that when the definitive abutment is attached at second stage surgery it will fit within the space that is available for the definitive restoration. The wound is then closed and the provisional restoration modified if necessary and fitted to provide the patient with uninterrupted aesthetic and functional benefit.

STAGE TWO SURGERY - IMPLANT EXPOSURE

The implant is exposed using the incision best designed to provide the ideal soft tissue contours. The abutment that was selected six months previously is attached to the implant and tightened. The wound

is sutured manipulating the tissues to create papillae if necessary. A provisional acrylic crown is fitted over the abutment, which now emerges from the gum. This will obviously provide the patient with a transitional crown to function with. The crown can be fabricated in the laboratory or in the surgery using conventional techniques as for dealing with teeth.

RESTORATIVE PHASE

This is started after approximately one to two months after the exposure of the implant. This enables the soft tissues to mature. The restorative management is no different from that of a conventional tooth. Minor modifications of the abutment may become necessary primarily to provide a margin for the crown. Conventional impressions using rubber based material are taken and a standard stone cast poured. A conventional porcelain fused to metal restoration can be constructed, tried in, modified if necessary, and fitted using a temporary cement. This places the restorative procedure within the grasp of most dental surgeons and dental technicians. Furthermore only two component parts are required, namely the implant and the abutment.

MONITORING

The implant is monitored clinically to ensure that it remains osseointegrated and is free from inflammation and discomfort. Long cone periapical radiographs taken



Large bony defect requiring augmentation prior to implant placement.



Autogenous cortical bone harvested from the ascending ramus is being used to restore the ridge. Adequate height and width of ridge has been created.



A provisional restoration (metal acrylic rochette bridge) being used to restore the patient during the treatment time. The provisional restoration is also used to assess the appearance that will be achieved.



The definitive crown constructed in porcelain bonded to metal in situ.



Periapical radiograph showing the implant in the bone, the abutment attached and the porcelain bonded to metal crown. The remodeling of bone to the first thread can be seen and this will be monitored radiographically on an annual basis.

AESTHETIC IMPLANT RESTORATIONS - SURGICAL AND PROSTHETIC HARMONY

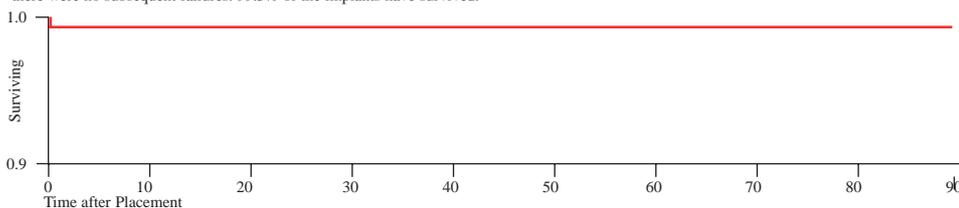
one month after the restoration and every year thereafter can be used to monitor bone levels. This will ensure that complications can be spotted and dealt with.

The advantages of using an implant instead of a conventional restoration to replace a single tooth are -

- That it is a minimally invasive technique because the adjacent teeth have not been irreversibly altered.
- Furthermore loads are transmitted directly to the alveolar bone which stimulates it to retain its form.
- Most importantly however, excellent aesthetics can be obtained by recontouring the hard and soft tissues which is not possible with other types of restoration.

The survival of the implants restored with single teeth observed over the past seven years show a survival of 99.5%. (Table 1). The only implant that was lost was before the exposure of the implant and appeared to have developed an infection. No implants were lost after exposure and restoration indicating that this is a predictable procedure and should be considered as one of the primary options offered to the patient.

Table 1. Survival plot of 201 single tooth implants observed from 0 to 88 months following placement. 1 implant failed 2 weeks after insertion, there were no subsequent failures. 99.5% of the implants have survived.



Preoperative radiograph showing a failing bridge with associated loss of bone.

MULTIPLE IMPLANTS IN STABLE OCCLUSION

The replacement of several teeth may become necessary. This may be as a result of the failure of a bridge, caused by compromised natural tooth abutments which fail. This may often result in the loss of bone following pathology associated with the failing natural abutments. Loss of hard and soft tissues will need to be assessed and bone grafts considered in order to build up the ridge to an acceptable level. The aim of the graft is often twofold. 1) To increase the amount of bone available for the biomechanical advantage that this would offer. 2) To reduce the length of the clinical crown by recreating the alveolar crest at a more aesthetically acceptable level.

DIAGNOSTIC PHASE

The adequate assessment of cases where several teeth are missing may require the use of CT Scans in order to obtain information about the width and height of available bone. The tooth position can be transferred to the image produced by a CT Scan by using radiopaque markers. The diagnostic preview has an additional role

at this stage. This is to determine the number and the sites of implants that will be required. The provisional restoration is once again used to verify the aesthetic and functional parameters that are defined by the diagnostic preview (Try-In).

AUGMENTATION

Augmentation when required must be carried out paying attention to the positioning of the bone graft in relation to the teeth that need to be restored. The most predictable graft material available for use where width or height, need to be increased is autogenous cortico-cancellous bone. Generally an intraoral site can be used particularly when two or at the most three teeth need to be replaced. In many situations where excessive bone height has been lost or when more than three teeth need to be replaced cortico-cancellous bone may be obtained from the iliac crest.

FIRST STAGE SURGERY

Implant sites need to be marked accurately both labio-palatally and mesio-distally. A minimum distance between the centre of two implants is between 6-7mm depending upon the width of the teeth. The implant position can be verified using the template as well as the provisional restoration. Implants are generally placed between two to six months after the graft. This time scale will depend upon the metabolism of the patient. Once the implants are inserted their position is refined using trial abutments. The



Bone graft harvested from the iliac crest can be seen restoring the width and height of bone. (Placed by Ashok Sethi, harvested by Harbhajan Plaha.).



Stone casts made from impressions taken at first stage surgery showing the transitional restoration being fabricated directly on the abutments which will be attached to the implant at second stage surgery.



Occlusal view of the diagnostic template showing the implants and the trial abutments within the prosthetic envelope.



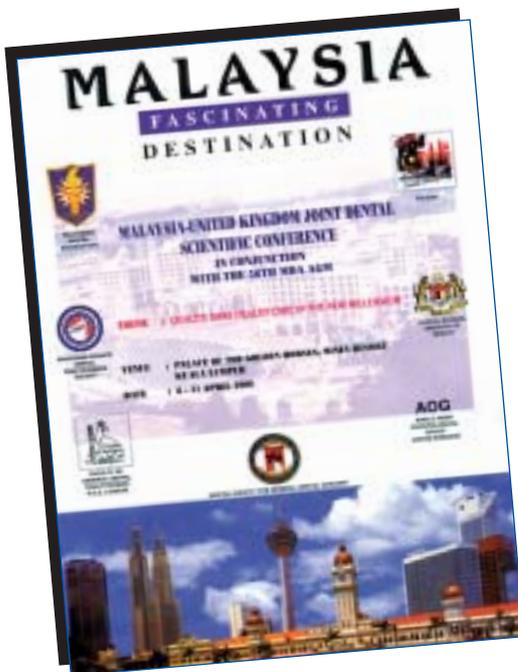
Exposure of the implants at second stage surgery with the abutment attached. Note the soft tissue that will need to be manipulated in order to cover the exposed bone and create the interdental papillae.

MALAYSIA - UNITED KINGDOM JOINT DENTAL SCIENTIFIC CONFERENCE

THE MALAYSIAN ADVENTURE

The boundless beauty of the enchanting land of Malaysia has captivated many a traveller's heart. For centuries, traders and explorers were drawn to its shores to seek their fortune or to find a congenial place to settle down. From the four corners of the world came languages and customs, which blended with the rich traditions of the indigenous population to create a diverse and fascinating culture.

Political stability and a growing economy make it a safe and attractive place as a holiday or business destination. Tourism has fortunately not changed the character of the people: on the contrary, it has encouraged them to preserve and share their rich heritage. The friendliness of its people makes Malaysia irresistible.



Malaysia - United Kingdom Joint Dental Conference April 1999 - Kuala-Lumpur

So who would refuse an opportunity to visit Malaysia especially the package was of excellent value.

So it came, the opportunity I mean delivered by a Royal Mail Fairy. This was an invitation by the Malaysian Dental Association to AOG, BSGDS and FGDP (UK) to co-host the Dental conference in Kuala Lumpur.

It was nice to have received the invitation, but the question was, who would take the responsibility of putting together a package to suit everyone. Well, as usual it fell on the broad shoulders of the AOG devotee Raj K.Raja Rayan, OBE who with unreserved assistance from Air-Commodore Richard Butler and Rash Patel, all members of three organisations, worked hard behind the scene and out a package together which was of excellent value. This of course was made possible by the Malaysians, led by Dato Dr A Ratnanesan, the organising Chairman of the Conference. Our sincere thanks to them and to those commercial sponsors who contributed to some of the activities namely, Kavon Dental (UK) Ltd, The Dental Directory, Medical Insurance Agency and Wright Cottrell Ltd.

MESSAGE FROM THE AOG PRESIDENT

On behalf of all the members of the Anglo Asian Odontological Group, (AOG) please accept my best wishes and sincere congratulations on hosting the forthcoming joint MDA-AOG-BSGDS dental conference to be held in Kuala Lumpur.

The AOG has maintained close ties with the Malaysian Dental Association over the past few years and we are indeed privi-

leged to have been invited as one of the participants, to co-host the conference.

The AOG has established its reputation both nationally and internationally. It has in the past supported projects in India, Sri Lanka, Nepal, within United Kingdom, and Malaysia. We have adopted a policy to annually invite talented world speakers to present a series of lectures in the U.K. Apart from the post-graduate commitments to its members, AOG also encourages unity and harmony among colleagues and friends through arranging charity social events.

I, as the president of the AOG and the executive, will endeavour to support the joint venture the best way possible, and make it a great success for the Malaysian Dental Association and Malaysian people.

Our Best wishes for 1999 and beyond.

S A Najefi LDSRCS. (Eng) MGDSRCS (Eng) DGDP, (UK)



MALAYSIA - UNITED KINGDOM JOINT DENTAL SCIENTIFIC CONFERENCE

SUN, SEA & SEAFOOD IN PENANG

The itinerary was as follows;

2nd April - 7th April inclusive in PENANG.

1st April - Depart London Heathrow by Malasian Airlines.

2nd April - Arrive Kuala-Lumpur and then onto PENANG. Coach transfer to Shangri-La's Rasa Sayang Beach Resort.

PENANG-"The Pearl of the Orient". Lies off the north-western coast of Peninsular Malaysia. Its population of more than 1 million represents a happy mix of the major races found in Malaysia with Malays - 32%, the Chinese - 59% and the Indians 7%.

Penang today is a resort island in full bloom - an idyllic playground for worshippers of the Sun, Sea and Seafood. Its multi-racial population contributes to a wealth of cultural attractions and festivals for visitors to bring home memories of happy times.

Places of interest include:-

- * Penang museum and art gallery.
- * Kapitan Keling Mosque - built in the early 19th century.
- * Goddess of Mercy Temple 0 One of the oldest Chinese Temples.
- * Fort Cornwallis - Francis Light's historic landing.
- * China town
- * The Buddhist Temple - Houses a 33 meter gold-plated reclining Buddha.

- * Butterfly farm, Snake Temple, Botanical gardens etc.

All of us had a lovely time in Penang, sun, sea and sumptuous meals (compliments of AOG/BSGDS/Sponsors) at times, finishing with a semi formal dinner on the 6th April.

Just when we thought we had escaped post-graduate lectures, we were confined to two more illuminating lectures given by;

- * Mike Cassidy - "What's new and What's not new in the clinical management of Dental Caries". and

- * Graham Gilmour - "The problem patient - How to cope".

Believe it or not, one of the drinks that was served afterwards - yes! you guessed it - COKE.

As they say "all good things come to an end" so did our stay at Rasa Sayang, and onto the next leg of our tour - Kuala-Lumpur for the Conference.



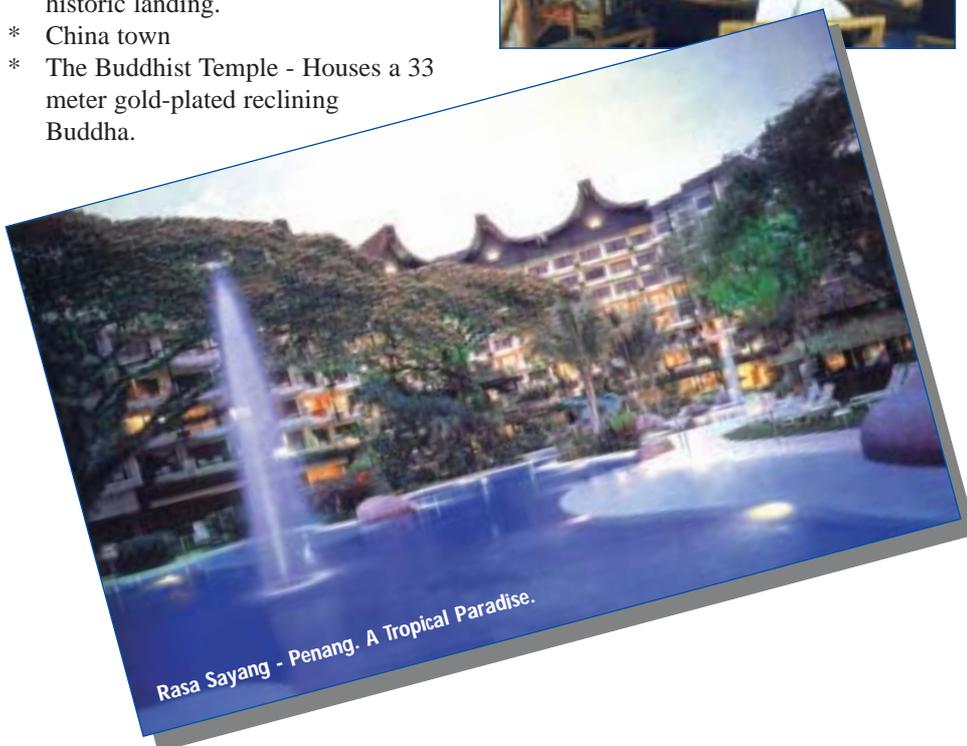
3rd April Lunchtime gathering in Garden Terrace with drinks & Buffet Lunch.



Sunday 4th April Morning Outing - Fishing Village



- Snake Temple



Rasa Sayang - Penang. A Tropical Paradise.



- Butterfly Farm

MALAYSIA - UNITED KINGDOM JOINT DENTAL SCIENTIFIC CONFERENCE

THE JOINT DENTAL CONFERENCE - 8TH APRIL TO 11TH APRIL

8th April -

Flight from Penang to Kuala-Lumpur and transfer from K.L. airport to the Palace of Golden Horses, our hotel of course and not stables. A six-star hotel I might add.

8th April - 1830-2030hrs.

Delegates and their spouses were invited to attend welcome cocktail reception at the British High Commissioner's Residence. Host - His Excellency Mr. Graham Fry. This gave us an opportunity get acquainted with our Malasian colleagues before the conference.

9th April - 0830hrs

Opening Ceremony - attended by minister of health.

Honeymoon period was over and all the delegates had to wake up early (at crack of dawn) to carry out their particular chores. Some of us were involved in setting up the table demonstrations, some preparing their lectures and making sure the electronics were up to their requirements, and some of us had the most important duties - VIP's either sat in the auditorium, or like myself as the president, who had to observe the protocol of meeting the minister and accompany him onto the stage. an experience I will always treasure.

After the speeches, we were entertained by performers from National Theatre, Tourism Malaysia. This was followed by the official opening of the Dental Trade

Exhibition and resumption of the scientific programme.

The Informal Night -

at the Sungei Besi Turf Club. The Theme was "The Wild Wild West", this informal night included:-

- * Dress code - The Wild West Attire
- * Food - Plenty of it, different delicious dishes, from barbecued lamb to curries. etc.
- * Speeches and prizes
- * And lastly we were entertained by a superb group - dancing till midnight.

10th April - Saturday -

Lectures, Table Demonstrations and Exhibition continue till 1300. The afternoon was free for delegates to indulge in "other activities", sight-seeing etc.



Sunday 4th April 8.00pm Evening drinks reception Drinks named after the AOG & BSGDS Presidents.
1. Saif's non alcoholic sip.
2. Kurer's alcoholic cocktail



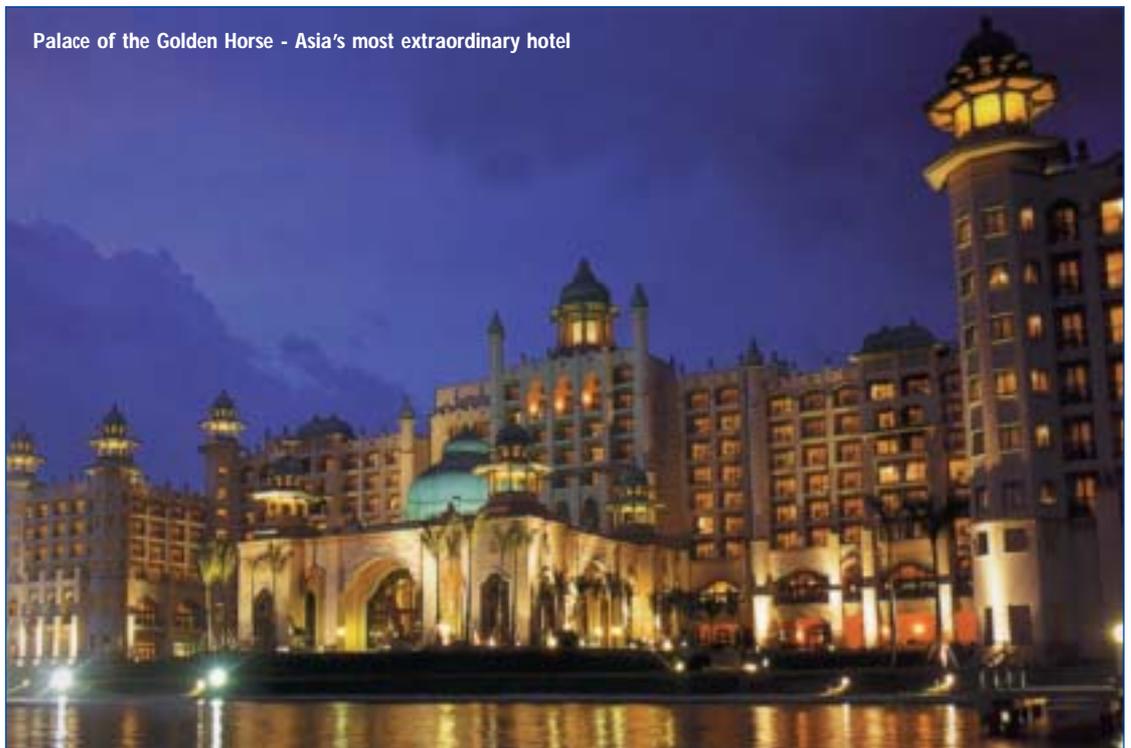
8.30 Dinner - Mongolian style.



The Co-organisers Raj K. Raj Rayan & Richard Butler



Palace of the Golden Horse - Asia's most extraordinary hotel



MALAYSIA - UNITED KINGDOM JOINT DENTAL SCIENTIFIC CONFERENCE

Conference Banquet -

Another exhilarating experience. We were royally entertained by the Malaysian Dental Association. a splendid dinner, set in the grand ambience of the Palace of the Golden Horses.



Thursday 8th April Welcome Cocktail reception at the British High Commissioner's Residence.

The programme included sumptuous dinner, yet more speeches, prize giving and entertainment by Temple of Fine Arts who presented a cultural show.



We were indeed privileged to be part of joint venture.



President of AOG - Mr and Mrs Saif Najefi together with President of BSGDS Mr and Mrs Hans Kurer OBE.

11th April - Sunday -

Lectures, Table dems, and Exhibition. closing ceremony was at 1250 followed farewell lunch.

Sunday afternoon was a sad occasion as goodbyes were exchanged between buddies and new friends. some of us had to come home, because of commitments and others went further afield - the lucky ones.



Dr Khurshid Qureshi, Dr Pomi Dutta & Dr Saif Najefi - Sharing trade Secrets.



Group photo with His Excellency Mr Graham Fry and Mrs Fry.



President of AOG. Wearing a chief's hat.



Participants at the Table DEM on Occlusion and Articulation - Raj K Raja Rayan, Saif NAjefi, Suresh Chande Pamela & Gian Jamus.



Rash trying to blow out the last remaining drop of ... amber nectar from the tube assisted by Richard Whatley of Kavo.



Our Thanks go to;

- * Mr Raj K. Raja Rayan OBE, and Air-Commodore Richard Butler as co-organisers of the trip
- * Dato' Dr. A. Ratnanesan, Dr. S. Nagarajan and the Malaysian Dental association.
- * The Sponsors - Kavo Dental(UK)Ltd., The Dental Directory, Medical Insurance agency, and Wright Cotrell Ltd.,
- * Speakers; - Dr. Chris stock, Prof. Thomas G. Berry, Dr. Valerie Clerehugh, Dr. Raj K. Raja Rayan, Air Vice-Marshall Ian MacIntyre, Dr. Hans Kurer OBE, Dr. Graham Gilmour, Dr. Mike Cassidy, Dr. Ashok Sethi, Dr. Arshad Ali, Dr. Rash Patel, Dr. Keith Marshall, Dr. Manjul Vasant, Assoc. Prof. Noor Hayaty Abu Kassim, and Prof. Ian Barnes.
- * Those colleagues involved with table demonstrations.
- * Ahila Raj Rajan and friends - for looking after our children while we were enjoying ourselves.
- * The whole entourage for being so well behaved, accommodating and friendly.



GOODBYES AND FAREWELLS.

PERIODONTAL DISEASE - SO YOU THINK YOU CAN CURE IT?

Mr Gary Hills BSC, BDS, MGDS RCS, M Dent Sci

Your late for your first patient of the day, the kids have been moaning since they woke at 6am and the wife has just told you that she's seen a beautiful kitchen that she really, REALLY needs and all for less than £13,000. How would you feel if someone tried at this moment to tell you how important it is to brush your teeth in the correct manner? Personally I would be handing my business card to the absurdly well meaning person and offering him / her a free consultation for the denture they would be needing. Now that's what I call practical dental advice!

The realities of modern life are that whilst it is necessary to have teeth, is it really that important or practical to have all 32? As dentists, we feel it is a duty thrust upon us to agonise over the patient's dentition and the loss of a single tooth is a measure of our competence as practitioners. Unfortunately, the realities of periodontal treatment mean that no matter how attentive our care is, the retention of an intact dentition from a periodontal aspect is almost always dependant on the attitude of our patients to THEIR teeth.

As a dental practitioner with a special interest in the treatment of periodontal disease I am rarely disappointed in the outcome of the gum treatment I provide. I am frequently disappointed in the low priority that patients attach to their teeth.

Compliance to dental advice for periodontal care has been consistently recorded at less than 40%. This means that only 60% of your time in oral hygiene instruction is being put to productive use. If your staff functioned to that level you'd probably sack them, yet as dentist we simply put up with this level of compliance as the thought of losing 60% of our patients makes aggressive oral instruction a business non-starter and frankly is not necessary.

Levels of periodontal disease in the population in the UK have been recorded at

between 60 - 80% depending on the criteria of the survey. With this much disease it is surprising that less than 10% of our patients are considered at risk of tooth loss that would appreciably affect the functioning of their dentition. Of that 10%, the treatment of the disease simply delays tooth loss and rarely arrests it. There in lies the problem and the solution to our care periodontal of our patients.

For the majority of our patients, inadequate periodontal therapy, as generally performed in the NHS is more than adequate to maintain an intact dentition well into old age. For a few, aggressive periodontal therapies will give an appreciable increased life to their teeth, but for some, admittedly a small majority, our care will be patently inadequate.

It is this last group that the GDP has to realise exists and take the necessary steps in monitoring, patient education and specialist referral that will be deemed appropriate patient care by the regulatory dental bodies. Sometimes the best care we can offer our patients is to admit that the problem requires specialist intervention and not to struggle alone against the tide. Personally I've always thought King Kanute a bit of a Richard Cranium.

So how are we going to identify those patients that are at high risk? The establishment recommends rigorous monitoring with probing pocket depths (PPD), bleeding indices, gingival indices and radiographs, preferably millions of them to establish that the disease is present. Could I suggest that I find it helpful also to use my eyes as a backup to this mountain of recorded information. Remember for the majority of our patients it could be viewed that apart from the odd radiograph, questioning what is obviously visible, a quick CPITN and OHI, treatment is generally not required save for obvious calculus and stain removal. It is only when assessing the patient over a long period that monitoring is relevant

and necessary. The initial recordings taken of a new patient will simply record previous or present disease in the context of their oral habits and health. It rarely relates to the response that is observable to their treatment. Indeed I am of the opinion that save for covering ourselves from litigation, initial monitoring should not commence until the patient has demonstrated a capacity to listen to and accept the advice we give them. Measuring recognised monitoring criteria with grossly inflamed tissues is of no use to the dentist, as frankly the patient hasn't come under starter orders in the race to secure oral health. Far better to educate the patient to the problem and see if THEY can motivate themselves to aid the solution. You will notice that I have placed the onus of motivation onto the patient. Dentists generally are poor patient motivators but can be extremely sympathetic and knowledgeable educators.

So what stages of treatment do I regularly undertake in my role as a practitioner limited to periodontal disease.

PATIENT ASSESSMENT.

Starts as they walk into the surgery. Most of my patients are referred from local dentists and the referral can be for a multitude of reasons not related to their gum condition. Exasperation coupled with frustration means that some of my patients have deteriorating periodontal health simply because they do not listen to their dentist. Categories of patients exist and I'm sure you'll recognise some of them

Mr & Mrs too busy
Mr & Mrs know it all
Mr & Mrs a little knowledge is dangerous
Mr and Mrs I'll sue if there's a problem
Mr and Mrs it's not my fault
Mr and Mrs wants to save their teeth
Mr and Mrs I don't know why I'm here
Mr and Mrs all of the above!

Aim of assessment
To assess the level of information and

degree of control required by the dentist to educate the patient as to the severity of the problem. Remember the patient may be having a 'bad hair day' so how the messages are put across may be as important as the information.

MONITORING

When to start!

1. At the initial consultation?
2. At the 2nd or 3rd appointment

Radiographs Essential - OPT, Pa's PPD/CPITN Initially optional /Essential Initial bleeding indices Optional Plaque disclosing essential & useful

Aim of monitoring

1. Provide records for comparison of efficacy of treatment.
2. To assess the need for further treatment
3. To assess patient compliance and habits

TREATMENT (initial therapy)

In an ideal world periodontal treatment would only commence once the oral hygiene was assessed to be perfect i.e. 0% plaque score. As few of us would wish our oral hygiene plaque scores to be scrutinised by our colleagues a better starting point for commencing treatment is to assess ANY improvement in oral hygiene since the initial appointment. Any improvement indicates that the patient has assessed the information presented to them and has perceived it to be of sufficient benefit to act upon it. The level of patient compliance from that point relates to how much improved benefit the patient experiences to the repeated advice given at subsequent appointments. Remember good oral hygiene is not essential in many patients to retain teeth, but it certainly helps in treating the disease.

Once the OH is deemed acceptable i.e. plaque scores of >20% and improving, together with visible reduction of superficial gingival inflammation, simple periodontal therapy has a high degree of long term success. Mechanical debridement can commence to reduce the causes of inflammation. This can take the form of simple polishing, supragingival scaling to progressively deepening subgingival scaling and finally root planing. The aggressiveness of the treatment may relate to the

pace at which the patient wishes to proceed and the time necessary for adequate soft tissue healing to mature (up to 3-4 weeks / area). Monitoring of the treated areas within the initial stages of treatment should not be undertaken by probing unless significant reduction in gingival inflammation is noted. It is generally accepted that the presence of bleeding on probing is an indicator of disease, but the absence of bleeding is not a definite sign that disease is not present. It is also conjecture to have a probing depth of > 5mm and assess this site to be in need of treatment without signs of inflammation. Remember at present we cannot predict with any certainty which gingival site may develop disease.

Aims of treatment

1. To educate the patient as to the goals of treatment and the signs of health Vs disease
2. To reduce to a significant degree gingival inflammation
3. To evaluate the patients compliance with efficient oral hygiene procedures
4. Assess the need for further treatment
5. Record acceptable indices of monitoring

FURTHER TREATMENT

If treatment has resulted in an appreciable reduction in monitored indices then further reinforcement in oral hygiene restates the benefits that can be achieved with the extra care the patient has given their dentition. It is often forgotten that praising the patient has its rewards for the dentist and the new found confidence the patient has with their dentition can lead to further profitable work by the dentist at the patients request.

If the treatment has not been successful then the problem is either due to the operator, an underlying health problem or a failure of the patient to deliver a consistently acceptable level of oral hygiene. As a bail out position the dentist needs to investigate the reasons for failure and then take the necessary steps to rectify the problem. This may result in the dentist accepting that the patient does not attach sufficient importance to their dentition and the long term goals of maintenance may need to be reassessed and spelt out to

the patients. Faced with the loss of teeth some patients re-motivate themselves as they have seen the efforts you have made to give them the opportunity to 'save' their teeth.

Further treatment may take the form of surgical therapy or non-surgical therapy but only after ORAL HYGIENE IS CONSISTENTLY IMMACULATE. To proceed further with treatment without the full co-operation of the patient is inviting scrutiny by our legal colleagues if the patient becomes dissatisfied with your treatment.

If the failure of initial therapy has been localised to specific sites then dealing pragmatically with these teeth can have a profound long-term effect on the patients' motivation. 10 minutes a day in the bathroom to retain an upper second premolar in an otherwise intact, functioning dentition is in my view poor time management by the patient and impractical. This does not mean that teeth with probing depths of >6mm should be extracted simply because sometimes they exhibit signs of inflammation. Scientific research has shown that bacteria can transfer between sites and persons but the processes of lateral infection have as yet to be proved. Similarly far too many asymptomatic mobile teeth are extracted at the behest of the dentist. A workable rule of thumb is if it moves and is healthy, either accept it or stabilise it. The material of choice for tooth splinting I would recommend is Ribbon Bond as it is simple to use and can be modified at a later date.

SURGERY

The rule is to keep it simple and localised. If you are attempting full mouth flaps I suggest you attend further postgraduate education.

By far the most practical and effective surgical technique is the apically repositioned flap. It quickly reduces pocketing and aids cleaning access. However, careful evaluation of the bone anatomy must be made prior to this procedure.

Gortex and similar materials are notoriously difficult to use and only necessary in specific sites. Infection rates are high if undertaken by inexperienced practitioners.

Similarly bone grafting products only have a proved efficacy if primary closure of the wound / flap can be achieved.

The success of any gingival grafting procedure relies almost totally on good oral hygiene procedures and operator competence.

Root surface preparations are in the early stages of development and need further evaluation.

IN CONCLUSION

Rules of thumb.

1. Patient education and good oral hygiene are paramount to the success of your treatment.
2. Poor oral hygiene can be accepted in many patients with good patient management and monitoring
3. The priority the patient attaches to their teeth may significantly effect treatment outcomes
4. Non surgical therapy will be sufficient to enable health to be maintained in the majority of the dentition
5. Probing depths are an indicator of anatomy not disease
6. It is not possible to predict which gingival sites will regress.
7. Bleeding on probing is an indicator of inflammation and the area requires treatment
8. A clear assessment of the aim of surgical therapy must be understood prior to undertaking this procedure
9. Mobile, asymptomatic teeth should not be extracted simply for expediency
10. Furcation involvement does not necessarily mean imminent tooth loss.
11. If a case becomes problematic, REFER TO A SPECIALIST BEFORE THE PATIENT REFERS TO A SOLICITOR.

Remember that periodontal therapy is the tortoise in the tortoise and hare race. Time is required to assess the success or failure of treatment. We're in the tooth business and it is to our benefit as much as the patient that they remain where they belong, IN THE MOUTH.

ARE EXTRACTIONS ALWAYS NECESSARY FOR THE ACHIEVEMENT OF ORTHODONTIC OBJECTIVES?

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INTRODUCTION

A referring practitioner may face bewilderment when confronted with a request from an orthodontist to remove several teeth [especially if the teeth are healthy]. Emotive questions may arise and trauma might be experienced by all concerned. In patients with limited dental experience, difficult decisions regarding modes of extraction i.e. anaesthesia, surgical removal and medical history will have to be made. It is essential to understand the fundamental philosophies behind the extraction versus non-extraction debate.

LITERATURE REVIEW

As early as 1907 debate on the subject of extraction or non-extraction has raged with strong arguments favouring each school of thought. Edward Angle purported that all 32 teeth could be accommodated to provide the best aesthetics and functional occlusion¹.

Calvin Case² used arguments of excessive expansion and dental protrusion, which could produce an unacceptably full profile, to criticise Angle's non-extraction philosophy.

Some practitioners noticed that non-extraction cases were prone to relapse and Tweed re-treated 100 cases with extraction of 4 first premolars which he used to convince others that teeth needed to be removed³.



However Begg's philosophy which advocated routine extractions of premolars created

negative facial aesthetics i.e. 'dished-in' profiles in some cases.

Recent litigation related to extractions for orthodontic reasons influenced the trend in favour of non-extraction treatment in the USA. Proffit reviewed extraction frequency over a 40-year period substantiating cyclical trends⁴:

Year	Treatment involving extractions
1953	30%
1968	76%
1993	28%

REASONS FOR EXTRACTIONS IN ORTHODONTICS:

• CROWDING:

This is the most common reason given for extractions. It can be defined as space deficiency resulting in abnormal alignment of the teeth.

Amount	Classification	Recommended Approach
<4mm	Mild	Non-extraction
5-9mm	Moderate	Therapeutic diagnosis or extraction
>10mm	Severe	Therapeutic diagnosis or extraction

Therapeutic diagnosis is the use of fixed appliances to determine 3-dimensional tooth position prior any extraction decision.

• OVERJET & OVERBITE:

Extractions can be used to mask vertical [anterior open bite] and horizontal skeletal discrepancies in class II or III relationships [camouflage]. Deep bite cases can be worsened by extractions.



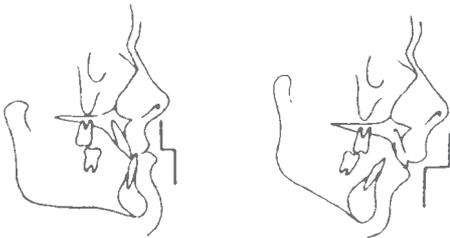
· PROFILE IMPROVEMENT:

Assessment of the effects of extraction on the profile is an essential skill at the diagnostic stage. Racial variations must be taken into

consideration before proposing extractions. Soft tissues may not respond predictably to tooth movement.

· REDUCED OR NO GROWTH POTENTIAL:

Age becomes a major factor in determining treatment outcome in all cases. Patients beyond the pubertal growth spurt with skeletal and dental discrepancies can be managed using either approach.



Patients with extreme discrepancies will benefit from surgical-orthodontics to achieve an ideal occlusion and harmonious profile.

· STABILITY OF OUTCOME:

Some orthodontists believe that there are zones within which teeth must remain to ensure their long-term stability³. Their extraction choices are therefore rationalised on this basis. It must be noted that relapse can occur in extraction or non-extraction cases with no predictable indicators⁶.

· MIDLINE DEVIATION:

Severe dental centre-line problems can be corrected using asymmetric extractions.

· PERIODONTAL PROBLEMS & CARIES:

These conditions might force extractions and subsequently lead to compromised results.

GENERAL GUIDELINES:

	AVOID EXTRACTIONS IN
Class II Div 1	Lower arch
Class II Div 2	Upper & lower arches
Class III	Upper arch
Hypodontia	All cases

UNDESIRABLE EFFECTS OF ORTHODONTIC EXTRACTIONS:

1. Incomplete space closure
2. Re-opening of extraction spaces
3. Disrupted occlusion
4. Longer treatment time
5. Possible TMD
6. Extractions do not guarantee stability

OTHER SPACE GAINING TECHNIQUES:

1. Expansion
2. Inter-dental stripping
3. Headgear
4. Proclination of the anterior segments
5. Implant anchorage

CURRENT OPINION:

Although in certain cases orthodontic extractions are inevitable, a significant proportion of ones caseload can be approached conservatively.

Therapeutic diagnosis enables the treatment of borderline and difficult cases by non-extraction means. Patients are informed of the possible need for extractions prior to commencing treatment; therefore it should come as no surprise to referring practitioners if mid-treatment extractions are requested.

Extractions or non-extraction techniques do not guarantee results. More important factors are the diagnostic skills and treatment mechanics used by the orthodontist.

The types of retainers prescribed have significant influence on the long-term stability of the end results. Bonded retainers [fixed to the lingual or palatal surfaces of the anterior teeth] are the only reliable means of maintaining perfect alignment.

¹ Angle E.H. (1907) *Treatment of Malocclusion of Teeth*, 7th Edition, Philadelphia, SS White Manufacturing Co.

² Case C.S., (1964) *The question of extraction in orthodontia* AJODO 50;660-691

³ Tweed C.H., (1944) *Indications for the extraction of teeth in orthodontic procedure.* AJOOS 30;405

⁴ Proffit W.R., (1994) *40 year review of extraction frequencies at a University orthodontic trial*, AO 64;407-413 . AJOOS 30;405

⁵ Mills J.R.E., (1968) *The stability of the lower labial segment.* Dental practitioner 18;293-306

⁶ Little R.M., (1990) *Stability and relapse of dental arch alignment* BJO 17;235-241

FAMILY

DAY

“Despite a wet June day, fun was to be had by all at the AOG Family Day. Plenty of good food, drink and of course company ensured that nothing could dampen the spirits of the guests. Plenty of activities were arranged for all age groups – A big THANK YOU to all the organisers and sponsors.”



Dinesh drinks to Pommi's successful organisation.



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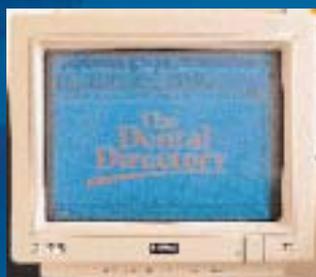
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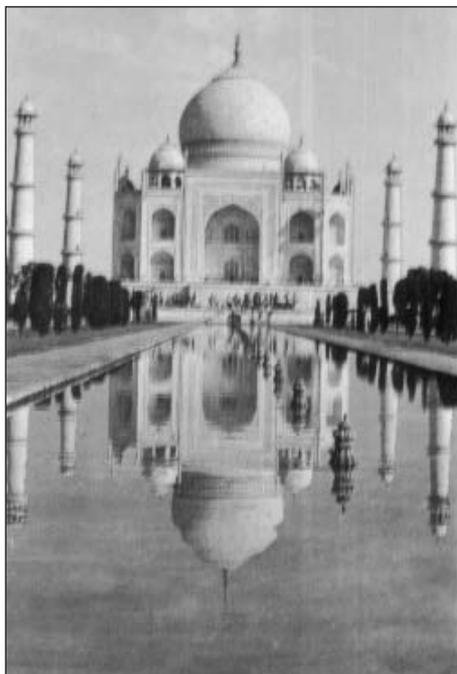
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"SUCCESS LEADS TO SUCCESS"

AOG DOES IT AGAIN! INDIAHHHH...2000!

THURSDAY 27TH JANUARY TO SUNDAY 6TH FEBRUARY

The AOG have been invited to the 54th Indian Dental Congress in New Delhi. This is a joint conference with the commonwealth Dental association where Brian Mouatt CBE will be installed as the president.



five star with all meals on tour generally included. Luxury upon luxury with our own personal tour guides and plenty of liquid refreshments.

We have obtained exceptionally keen prices. You can buy the package or bits of



Sheraton and mughal Sheraton. Be entertained by folk dances, torch lit processions and Indian classical dance performances whilst you dine. Elephant ride to the fort, rickshaw ride through the bird sanctuary are all included. Visit the Taj

Mahal, the Palace of the Winds, Fatehpur Sikhri, the Amber Fort, Agra Fort, City Palace and so on and on and on or relax by the pool.

The weather is cool - one of the best seasons to visit India .

Whose not coming to...

Indiahhhhhhh...
2000!



The British Dental Association, our friends the British Society for General Dental Surgery (the MGDSs) and the Faculty join hands with us to swell the expected eight thousand delegates at this conference. The trade stands will be bustling, hustling cash market place. The numerous lecturers from the world over will run parallel programmes. It promises to be an experience of a lifetime.

The AOG has a special pride of place at this meeting. It has sponsored the Indian Dental Associations first ever library. This meeting will be the final presentation from the AOG.

Part way through the conference, just before the boring bits, members of the AOG will be whisked off on a cultural tour of NorthWest India. Our stay will be

the package. Fully paid up members who undertake table clinics will have not only their registration fee waived, but also some of their hotel fees in Delhi waived.

PLACES ARE STRICTLY LIMITED. It is on a first come first served basis as the allocations are limited for the sponsored places.

The dates:27th January depart from Heathrow to Delhi. stay at Intercontinental on bed and breakfast basis.

Leave conference on 31st January to undertake the Moghul Tour. Lunch at Neemrana Fort Palace, Samode Palace, Chandra Mahal Haveli, Jaypee Palace etc. Stay at Castle Mandawa, Rajputana

CHECK LIST

**Costs: Direct flight by Air India
£425.00 Plus taxes**

**Intercontinental (4 nights) £188.00
Per person (Sharing) (Before sub-
sidy)**

**The Moghul Tour inclusive of meals
as stated £350.00 per person
(sharing)**

**Conference FEE US\$200 (to be
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**For early booking, contact Mr Somi
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AOG

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