anglo-asian dontological group

towards perfect practice

JOURNAL

06

Mouth Cancer Awareness Week
12 - 18 NOVEMBER 2006

AOG Ball November 4th

See inside cover for more details

Magazine Contributors

Manny Vasant MBE, Rahul Doshi, Ashish Parmar, Arun Mehra, Vinod Joshi & Sanjeev Bhanderi

Great New offer from The Dental Directory

See back page.

The AOG Present

The Annual Ball

at the

Hyatt Regency London - The Churchill
30 Portman Square, London W1A 4ZX

on

Saturday 4th November 2006

"Come and enjoy the premier event, plenty of good wine and tasty food plus excellent music to dance the night away to ... and of course fantastic company."

£60.00 Per Ticket

7.00pm Drinks Reception
Carriages from 1am

Tables of up to 10 may be booked.

There are a limited number of discounted rooms available.

Places may be reserved by email but will not be confirmed until cheques have been received.

For all enquiries/reservations email us on: aogevents@aoguk.org
or call 020 8427 1149 or 07956 390894

WHO's WHO

Rishi Mehrotra
President

Nishan Dixit
Secretary

Abhay Soneji
Social Secretary

Mahesh Patel
Treasurer

Sanjiv Chotai
Membership Secretary

Sudhir Thakkar
Co-opted Member

Parveen Amiji
Co-opted Member

Pomi Datta
Co-opted Member

UPDATE OF AOG MEMBERSHIP DETAILS

Please email us on info@aoguk.org if any of your details have changed.

If any member wishes to submit an article for a future publication, please email us info@aoguk.org.

Presidents Message

My time has nearly come to an end to lead this worthwhile and exciting society. Over the last two years we have raised and donated money to various charities around the world.

The social side has not suffered. We always have a Mehfil night, a summer BBQ day, a golfing day along with evening seminars and lecture days. The year always ends with the infamous Annual Ball.

I feel this diversity makes the AOG a unique society, one that I am proud to be associated with and especially honoured to have served you as President.

Saying that, none of the events, or the society as such would be a success without the enthusiasm and participation from it's dedicated and hard working committee members. A special thanks to those who are always there in the background supporting and promoting the AOG at every opportunity.

Please continue to support us so we can carry on going from strength to strength, and providing you with opportunities to learn, get together with friends and meet new people.

Mr Rishi Mehrotra

Portrait of Raj Raja Rayan unveiled

Mr David Dandy, Vice President of the Royal College of Surgeons, unveiled a portrait of the former Dean of the FGDP Mr Raj Raja Rayan during a small ceremony on the 9th May 2006 with some 50 or so invited guests at the college. The portrait will be displayed in the FGDP along with that of Steven Rear, the first Dean of the FGDP. The artist Robin Elvin also attended the ceremony.

Raj also received a 'Humanitarian Award' in Canada by the Academy of Dentistry International. This award is given in recognition of significant contribution to the enhancement of the quality of life and the human condition.

Treating Smile Disease

By Ashish Parmar BDS

In this article, Ashish Parmar explores the concept of 'smile design' as taught by the Rosenthal Group. Using a case report, it is explained how the important steps in smile design are applied to create a beautiful smile using porcelain veneers.

WHAT IS SMILE DISEASE?

The lower third of the face is very important when looking at facial beauty. If someone has nice lips which smoothly open up like curtains when they smile to reveal well aligned, correctly shaped, whiter teeth, then that person is likely to be more attractive. For a number of reasons (e.g. someone is nervous, or dentally uneducated), people have unattractive smiles. Figures 1 & 2 show two examples of smile disease of varying severity.

THE PRINCIPLES OF SMILE DESIGN

There are seven principles in smile analysis and tooth preparation techniques:

- Size of the central incisors and golden proportion rules
- Position of the midline
- Archform
- Axial inclination
- Gingival height symmetry (including 'zenith' position)
- The buccal corridor and 'gradation'
- Contact areas and embrasure spaces.

THE CENTRAL INCISORS

The central incisors are the dominant actors in the stage of someone's smile. They must be symmetrical with proper incisal edge position and should not have a discrepancy or variance of more than 0.2mm in any direction. It is also important to establish a 75-80% width/length ratio (Figure 3).

If the midline is considered a mirror plane, it is important to have symmetrical central incisors, but not necessarily a symmetrical smile. With subtle contralateral variation, a natural smile is created if there is balance.

Using the principle of golden proportion, it is possible to use a pre-operative photograph (a two dimensional image) to assess if the ratio between the central incisor : lateral incisor : canine is 1.6 : 1 : 0.6 (Figure 4).

THE MIDLINE

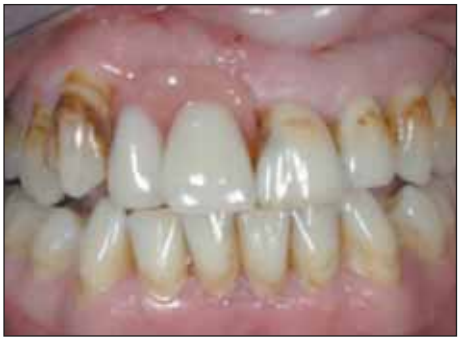
The upper midline should be vertical and not canted or inclined. It does not necessarily have to be in the middle of the face. The use of a facebow in multiple veneer cases can help the technician set up the working model correctly on a semiadjustable articulator.

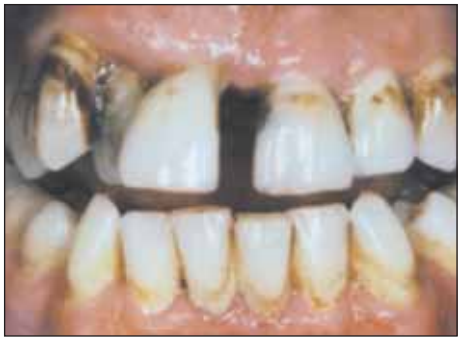
If the centre line needs to be shifted, then more aggressive tooth reduction is necessary to open up contacts. Important concepts include:

- Removing more tooth substance distally to create space
- Utilising more units of teeth for space distribution
- Use of a soft tissue laser for papilla recontouring.

ARCHFORM

When planning for veneer treatment, it is very useful to assess the archform on a pre-operative study cast. Certain teeth may be too labial, and certain teeth lingual to an imaginary line of the ideal curved archform required. With a marker, areas that need to be reduced first are marked on the model ('archform reduction') (Figure 5 to 7).





Figures 1 & 2: Smile disease of varying severity

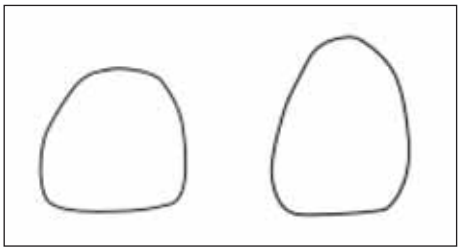


Figure 3: A 'short/square tooth' compared with one of correct shape and size.

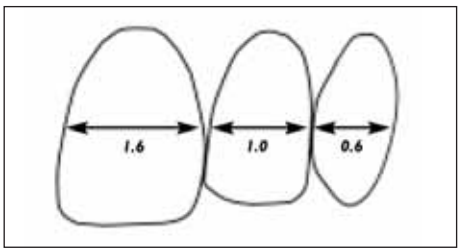


Figure 4: The principles of the 'golden proportion'

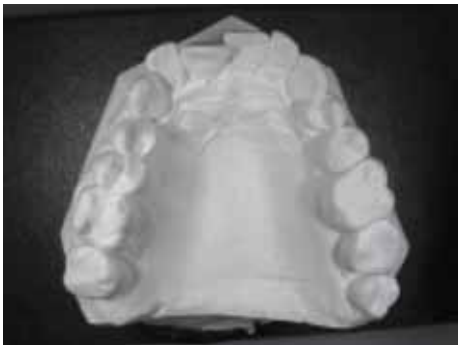


Figure 5: Pre-operative occlusal view

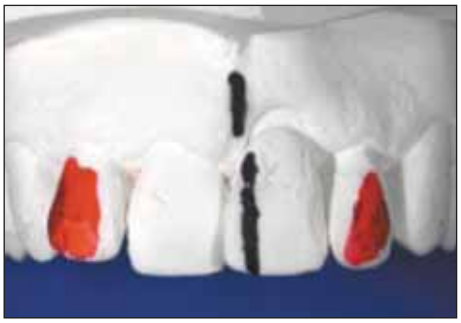


Figure 6: Markings on model (e.g. centre line shift/'midline slice' and areas of bulk reduction)

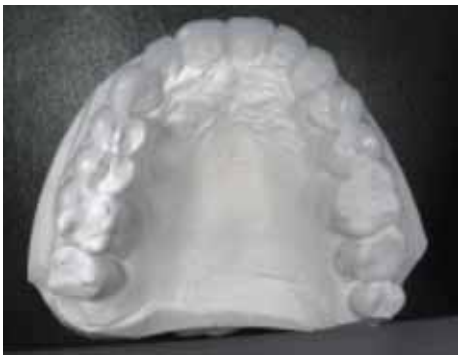


Figure 7:Wax-ups to improve archform

AXIAL ALIGNMENT

An example of a situation where the alignment needs to be improved is a mesially inclined upper lateral incisor (e.g. class 2 division 2 occlusion). More tooth reduction will be necessary mesially to improve the alignment of the prepared tooth.

In this initial smile design preparation, it is important to keep in mind that the preparation margins are not being established and the focus is solely on achieving the correct midline position, to have better archform (where necessary) and to achieve the proper axial inclinations of all the prepared teeth.

GINGIVAL HEIGHTS

It is recommended to have:

- Equal gingival height of the central incisor and the canine
- The gingival height of the lateral incisor 0.5 - 1.0mm shorter

than the central incisor and canine

- The zenith (the highest point of the gingiva) slightly distal of the midline for the central incisor and the canine, and in the midline for the lateral incisor (Figures 8a & 8b).

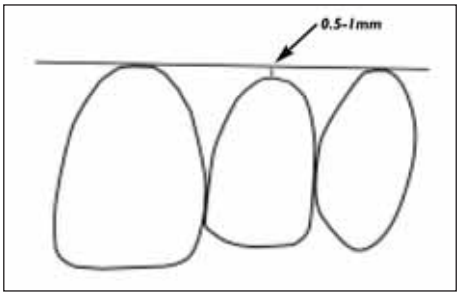


Figure 8a: Recommended gingival heights - equal for the central incisor and the canine, but 0.5-1mm shorter for the lateral incisor

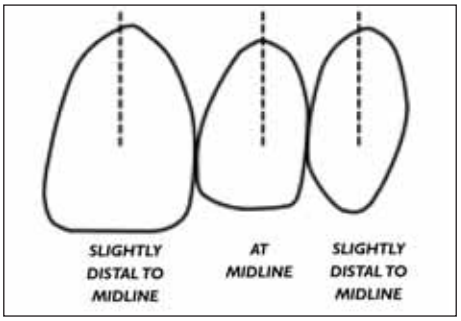


Figure 8b: Preferred positions for the zenith (the highest point of the gingiva) - slightly distal of the midline for the central incisor and the canine, and in the midline for the lateral incisor

In addition, Dr Rosenthal personally prefers to have the upper lateral incisor zenith slightly distal to midline.

To do high quality, efficient and effective gum recontouring a soft tissue diode laser (e.g. Twilite) is invaluable. Using such a laser, only seven to ten cell layers are removed at a time, there is no bleeding and minimal or no post-operative discomfort. This allows immediate impression taking (Figure 9).

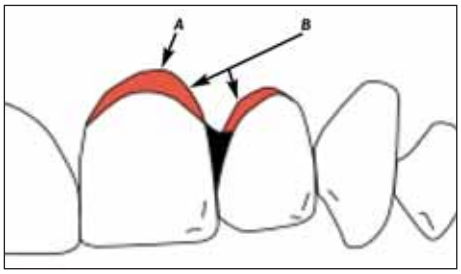


Figure 9: A = laser surgery repositioning of gingival zenith distal to midline of central incisor. B = laser surgery gingival 'troughing' to allow porcelain veneer contours to close the 'black triangle' area

LASERING OR CROWN LENGTHENING (OSSEOUS RECONTOURING)?

In the pre-operative assessment, if there are labial pockets of 3-4mm or more, then the use of a soft tissue laser is appropriate. If there is no pocketing and a 'gummy smile' needs to be corrected, then osseous recontouring and 'crown lengthening' will be required first.

THE BUCCAL CORRIDOR

Correcting the 'lateral negative space' or improving the 'buccal corridor' is important in creating an aesthetically beautiful smile. This may involve veneering the first, and often the second premolars depending on the person's smile. It is often necessary to do some laser contouring cervically and bring the buccal cusps tips outward. This has a beneficial effect of supporting the lips better for a more youthful smile (Figures 10 & 11).

GRADATION

There should be a smooth gradation in size from the anterior incisor region to the posterior premolars and molar region.

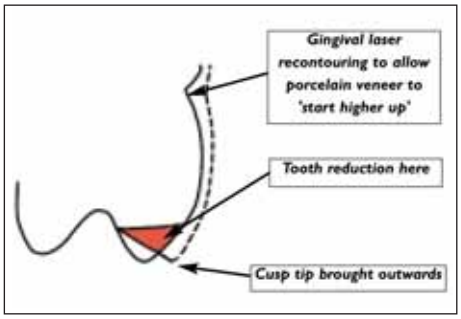


Figure 10: Cross-section of a premolar

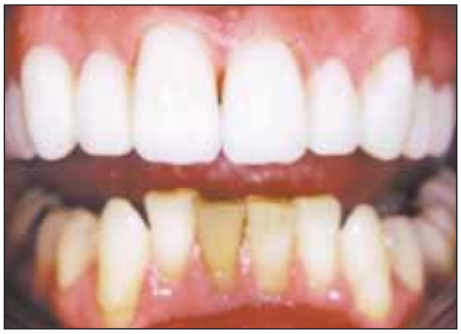
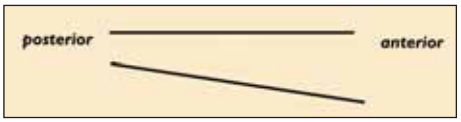
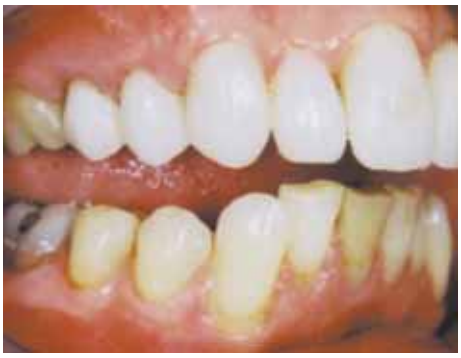


Figure 11:Veneers on upper premolars for a 'fuller' buccal corridor





Figures 11 & 12: A correct curve of spee ensures a harmonious and natural appearance from a side view

A correct curve of spee ensures a harmonious and natural appearance from a side view (Figures 11 & 12).

CONTACT AREAS

The central incisors should have a contact area in the lower one third. The lateral incisor has a contact area in the middle one third. For the canine, ideally it should be higher still. But, people may not like this as the canine ends up looking more pointed. Therefore the contact point is often brought lower (Figure 4).

CASE HISTORY

This patient is a pleasant lady who was nervous of receiving dental treatment. After some routine periodontal care and restorations, she expressed an interest in improving her smile. Her main concerns were to have whiter teeth and to improve the unfavourable positions of the upper lateral incisors. After careful discussion, the patient decided not to have crown lengthening. The lower teeth were whitened using 15% carbamide peroxide and a bleaching tray using home whitening techniques. The front ten upper teeth were treated with all ceramic crowns and porcelain veneers.

PRE-OPERATIVE ASSESSMENT/PLANNING

This included:

- Complete dental examination and 'smile analysis'
- Radiographs (full mouth periapicals and a dental panoramic tomograph)
- Articulated study casts*
- Digital photographs (using a Nikon Coolpix 990 Camera)
- Polaroid pictures (using a Macro 5 Polaroid Camera)

Continued overleaf

- Trial preparations by the laboratory technician on a duplicate model (using smile design principles)
- Diagnostic wax-ups
- A siltec putty index or an ellman splint.

*It is recommended to use 'putty and wash' impressions rather then alginates so that multiple models can be easily produced by the technician.

THE PREPARATION DAY

Key features are:

- Get the patient relaxed (soothing music helps)
- Good local anaesthesia
- Take a facebow reading and a 'stump shade' (Polaroid picture with the nearest shade from a Vita 3D-Master shade guide next to a prepared anterior tooth)
- Use Luxatemp (colours available are BL, A1, A2 and A3.5) for temporaries (allow up to one hour for making superb temporary restorations!) (Figure 13).

Figure 13: Temporary restorations at the end of the preparation visit

Tips include:

- Create tapered necks
- Build out the middle thirds
- 'Roll in' the incisal thirds
- Open embrasures (fine burs/orange soflex discs)
- 'Tucked in' lateral incisors
- Change mesial/distal line angles to 'widen' or 'narrow' a tooth
- Establish the correct final lengths of the central incisors
- Use flowable composite (e.g. Ecuflow) to build out areas, fill in airblows or deficiencies
- Use Luxaglaze at the end for a glossy appearance.

THE FIRST REVIEW APPOINTMENT (ONE TO THREE DAYS AFTER)

An opportunity to get the patient's views on:

- The shape, size and position of teeth
- Colour of temporaries
- Phonetics.

Further recontouring of the temporaries can be done to get an ideal appearance. At this point, a Polaroid photograph and an alginate of the accepted temporaries is taken for the technician.

THE SHADE SELECTION APPOINTMENT

One of the most important tasks of the dental ceramist is at the shade selection appointment. This is the art of matching teeth to people as all patients have different requirements. An example would be a 21-year-old female who wishes to have the perfect smile as seen on the cover of Cosmopolitan, the illusion of perfect white teeth framed between parted lips contrasting white against a vermilion background enhanced by lipstick. In this scenario an ideal mix of porcelains would be:

- Centrals - Vita OM3 / 1M1
- Laterals - Vita 1M1
- Canines - Vita 1M1 / B1.

High levels of translucency built into the incisal area to enhance mammelon structures within. However, not everyone wants a 'Hollywood' smile and for a more natural appearance there are several other factors to be considered:

- Patient's age
- Gingival colouration
- Texture and Lustre
- Male/female
- Shape of restorations (male angular/female curved).

LIGHTING CONDITIONS

A good tip here is never take the shade with the patient laying in the dental chair, always with the patient standing at eye level. Utilise natural and Waldman Colour-I-Dent shade selection light to compliment each other.

THE FITTING APPOINTMENT

Key points are:

- Local anaesthesia if necessary (you want a relaxed patient who's not jumpy)
- Use of rubber dam (two holes punched about one inch apart; joint together by a scissor cut; clamps on molars bilaterally)
- Use of Consepsis scrub to clean teeth
- Use of a good bonding system e.g.Variolink II
- Seating in one go if possible (use of serrated saw blade #9816 by Brasseler, floss and brushes before cement sets hard interproximally and near margins)
- Recontouring porcelain veneers as necessary (for aesthetic improvement and occlusion checking)

Figures 14 & 15: Before and after

- Polishing with Shofu Porcelain Laminate Polishing Kit and then Luminescence Diamond Polishing Paste
- The celebration! Let your patient appreciate his or her new smile. Have your team members around.

THE SECOND REVIEW APPOINTMENT

See the patient a couple of days later for:

- Patient feedback and ensuring all is well.
- Rechecking of occlusion.
- Post-operative photographs (Figures 14 & 15).

ACKNOWLEDGEMENT

I would like to thank Dr Larry Rosenthal, Dr Peter Rinaldi, Dr Jay Lerner and all the other instructors for hosting a truly wonderful six-day course. Through their inspiration and training, it is now possible to aim for the highest levels of aesthetic dentistry possible for our patients in the UK.

I would also like to thank Rob Storrar for his exquisite ceramic work. Beauty is created when art and science are blended well.

Ashish Parmar BDS

MATERIALS & EQUIPMENT

Twilite (Biolase, www.biolase.com)
Siltec putty index & Variolink II (Ivoclar Vivadent, 0116 265 4055)
Splint (Ellman International, www.ellman.com)
Diamond Polishing Paste (Shofu, 01472 399609)
Luxatemp & Luxaglaze (Minerva, 029 20490504)
Colour-I-Dent (Waldmann, www.waldmann.com)
Consepsis scrub (Optident, 01965 605050)
Ecuflow (DMG, www.dmg-hamburg.de)

Ashish Parmar BDS practises aesthetic and implant dentistry at the Perfect Smile Studios.

Seven things most dentists get wrong in business!

By Arun Mehra

In my opinion dentists in the UK have not reached the full business potential of being a dentist! This is mainly due to not paying adequate attention to few key aspects that are essential in any successful business. Hence, in this article I wish to highlight seven key aspects that most dentists have got forgotten!

Failure to realise that dentistry too is a business similar to any other professional service!

The times have changed and almost every professional service has become commercialised. There was a time when professional services such as dentistry were primarily seen as social services than commercial activities. This was during the era when these services were heavily subsidised by the government. However, with the de-regulation almost every such professional service has become commercialised and dentistry is no exception.

In my opinion many dentists have failed to recognise this fact. You cannot expect to run your practice profitably if you fail to recognise this!

Hence, to become a successful dentist the key challenge is to recognise the fact that dentistry too is a commercial activity whilst upholding the highest ethical and patient care standards without compromising the perceived role of a dentist in the eyes of public.

Failure to plan is planning to fail!

Failure to plan in any business is virtually planning to fail!

Today's business environment has become so dynamic than it was never before. The future is uncertain and the only thing which we can be certain about is uncertainty!

Hence, success depends on how best you are prepared to cope up with the foreseen and unforeseen events of the future. The idea of planning is not eliminate the adverse impacts of these events but to minimise the impact on your business.

The best example which I can quote here is the current changes in UK dentistry with a shift from NHS based dentistry to private dentistry. The likely scenario is that UK dentistry will be dominated by private dentistry. The downside of this being reduced profits due to increased competition.

Hence, the successful dentists are the ones who have a clear business (strategic) plan for their practices and who regularly review and update the same.

With my experience of working with the dentists I can assure you that those with a clear business plan (of course who has successfully implemented that) stand out from the rest In terms of practice performance.

Leave financial management to the bank manager and accountants

Most dentists do not pay adequate attention to the financial management of their practice leaving it to the bank manager or the accountants who prepare the annual accounts. The feedback you get in this form is often too late for any corrective action.

If you want to run a successful practice you have to take the ownership of its financial affairs. Your accountants can only facilitate you to do this. You should be aware of where to reduce costs and where to increase efficiency. You have to employ a series of financial management tools to this and your accountants should be able to devise simple easy to manage financial management tools. These should ensure that your practice's performance is line with what you have forecasted and this will enable you to take corrective actions when it really matters, without leaving it till the end of your accounting year when its tool late to take any action.

Most of the dentists' only tool to measure the practice performance is the year end accounts which are often ready a few months after the accounting year – far too late to take corrective action.

To run a profitable practice you need to take control of your finances and to do this I recommend to maintain your books using a simple bookkeeping package and implement few financial management tools to measure the performance of key factors essential for the success of your practice performance.

Ignore the importance of practice marketing

Most dentists still do not consider practice marketing an important aspect.

With UK dentistry moving towards private dentistry marketing the services offered by your practice can not be forgotten. What I mean by marketing is very cost effective inexpensive marketing efforts that can be used by dental practices to raise the awareness amongst the target patient groups and to stand out from the rest in an era of competition.

Failure to identify and target the "right" patient group

You cannot be every body's dentist!

By trying to serve everybody you may not satisfy anyone and ability to differentiate your practice will be lost. Many dentists have failed to adopt a niche strategy in dentistry by trying to serve everybody.

You should clearly identify the target patient group which you want to serve. This enables you to "position" your practice with a special "appeal" to this targeted sector and hence differentiate from other practices. This will be a deciding factor especially when UK dentistry becomes more private dominated.

In identifying the right patient group you should assess the potential of this group and the ability to serve this sector for a foreseeable future. By targeting a segment which is disappearing, your revenue will be seriously affected. On the other hand, by targeting the right customer group you can improve and sustain your profitability in the long run. The area where you are based in, the makeup of the populace in that area should all be considered in determining the patient group which you want to serve.

Dependence on few key personnel

I have observed that many practices are heavily dependent on few key personnel due to lack of systems and procedures. In fact, not only dentistry this is a common phenomenon in most small businesses.

This has hindered the expansion of many practices in my opinion. Instead of being dependent on few key personnel your practice should have simple and sound systems and procedures in respect of patient booking, maintaining patient records, scheduling appointment, managing inventories etc. These, will ensure the functioning of your practice smoothly even in the absence such key personnel who personally manage such affairs in his/her own way. Tried and tested systems will release you to focus more on the aspects which are essential for further development and further expansion of your practice.

Failure to adapt to changes

UK dentistry is changing rapidly and in my opinion many dentists have failed to recognise the importance of adapting to these changes.

As in the case of any business, failure to identify the changes in the industry and assess the implications of such changes will lead to your practice's business strategy being outdated.

For example with a shift from NHS based to private dentistry, competition amongst similar practices will be intense and only the dentists who envisage these changes and adapt accordingly will be successful. Similarly a failure to recognise changing customer preferences, for example cosmetic dentistry, will also lead to loosing your clientele in the long run.

Hence it is important carry out periodic assessment, in the form of a simple business audit, to ascertain the industry wide changes and how well you have adapted to such changes and what needs to be done.

Conclusion

In my experience of working with many dentists across the UK I cab reveal that many dentists have failed to recognised that dentistry too is a business and hence paying very little attention to the above aspects.

As I mentioned before the success of small businesses is hampered mainly due to inadequate attention to the above aspects. With UK dentistry moving towards private dentistry, emphasise on commercial aspects of dentistry can not be avoided.

In my opinion, and with my own personal experience, I can tell you that there's plenty of room for the development dentistry by adopting simple cost effective business management techniques.

Therefore I can assure you that your practice performance can easily be improved by paying adequate attention to the above aspects which most dentists in the UK have forgotten.

A professional and well-groomed team

Successful 'selling' in dentistry

Ashish Parmar BDS

Selling skills are essential for every team member in a modern, thriving dental practice. Selling is often thought of as a taboo subject. However, there is an art in non-pressurised selling to achieve a high rate of case acceptance for larger cases in 'high-end' dentistry. This article is an overview of a complex and interesting subject.

IMPORTANT CONCEPTS

- It is essential to build up trust and rapport with a client first. Only then, will that person buy from you
- Understanding a person's wants and needs is very important. This is achieved by effective and active listening
- Buying is largely an emotional event. Remember, it is all about your client and what they want rather than you
- Recognise the four different behaviour patterns of people and change your style to match the person
- Create exceptional perceived value in your product or service.

SIX STEPS IN SELLING

1. Approach... to gain rapport
2. Interview... to identify needs
3. Demonstrate... to explain how features/benefits will satisfy those needs
4. Validate... to prove your claims...cause people to believe and trust you
5. Negotiate... to work out problems
6. Close... to ask for a decision.

FIRST IMPRESSIONS COUNT

Whether a new client contacts your practice via the telephone or simply walks through the front door, the first impressions need to be exceptional. The sale is often made within the first 30 seconds. This may mean a smiling and welcoming voice on the phone that greets the client with an exceptional introductory script. This is followed by a helpful dialogue in an empathetic and informative manner between the highly trained and knowledgeable team member and the prospective new client. On the other hand, a new client may come through the front door to be welcomed by a professional, well-groomed team member who

The initial welcome

smiles and greets the person courteously like a guest. Surrounded by soothing colours creating a beautiful and aesthetic ambiance of the reception lounge, with calm and relaxing background music playing, combined with a pleasant and fragrant aroma, the new client will have already made a significant step towards saying 'yes' to the dental care that may be required. Stop for a moment, close your eyes and remember the best restaurant or hotel you have ever been to.

FOUR DIFFERENT BEHAVIOUR TYPES/PERSONALITIES

Everyone exhibits one of more of the following traits. As you read this list, try and visualise patients in your own practice that match a particular type:

The usage of aromatherapy and candles can relax patients

The client relaxes in the comfortable surroundings

Talkers

- Outgoing, friendly, fun
- Easy to approach
- Buy from people they like
- Need social acceptance. Doers
- Active, get-it-done people
- Decisive, quick decisions
- Want to deal with the top person
- Want to be given respect. Controllers
- Logical, wants facts and accurate information
- Not swayed by your enthusiasm/personality
- Careful analysis, then decision
- Biggest fear = being wrong.

Supporters

- Easygoing, steady, loyal, dependable
- Slow, detail minded
- Want to stay in background
- Need predictability & security
- Biggest fear = taking risks.

STEP 1: THE APPROACH

Either the dentist or the new patient co-ordinator can carry out the initial interview. Start by welcoming the patient by name and paying them a sincere compliment. It is important to try and laugh or smile to break the tension. This will make the patient feel more at ease and to be made to feel more important. The use of correct body language is critical in all communication. Build up a rapport by getting the patient to talk about himself or herself. Learn as many social facts about the patient as possible. Ask the right questions, sincerely listen to the answers and make emotional bonds. Give feedback as you listen: nod, smile, and say 'I understand'. I know it's difficult, but do not talk about teeth yet! The important thoughts a patient may have by now are: 'There's something about this place I like' or 'I like this person'.

STEP 2: THE INTERVIEW

This is the most important step, which can take time. It is advised to do only 20% of talking, and let the patient do 80% of talking. Start by asking important open-ended questions using 'who', 'what', 'where', 'why', 'whom', 'how'. Examples of such questions are:

- How may I help you?
- Tell me more about this
- How long has this bothered you?
- What have you done about this so far?
- Did this work well for you?
- How important is having this new smile for you?

Useful techniques include paraphrasing what the patient says and adding a benefit e.g.: *'So Mrs Smith, I now understand that you want to consider improving your crooked and discoloured teeth. Having a new smile will not only help you look younger and better, but will give you added confidence'.*

The client begins to admit their wants or needs, as well as a desire for a solution. They begin to clarify and define their own problems and develop an 'internal pressure' for solutions. The more your clients talk, and the more you listen, the more they'll sell themselves.

"So Mrs Smith, I now understand that you want to consider improving your crooked and discoloured teeth. Having a new smile will not only help you look younger and better, but will give you added confidence"

STEP 3: DEMONSTRATE

As a team, focus on filling needs, satisfying wants or solving problems rather than on your product or service features. After careful diagnosis of collected data, an ideal treatment plan is made for the patient. At 'case presentation', begin by repeating the patient's dominant wants. Explain briefly in lay terms how your product or service will fill their wants or needs. Ask for their reactions, feelings or opinions.

PRESENTING TO DIFFERENT BEHAVIOUR STYLES

Talkers

- Talk about how they'll look to others, and how they'll enjoy having veneers or implants
- Show them you are a friend who cares about them. Doers
- Talk in terms of results, the bottom line, and achievement
- Short presentation
- Confidence that you will take care of details and will deliver the end results.

Controllers

- Talk in logical terms
- Will demand proof evidence of your claims
- Will show little emotion. Supporters
- Will require much detail
- Show how things work, what to do if things go wrong, etc
- Take as much pressure off them as possible
- Go slowly, don't offer too much change.

STEP 4: VALIDATE

A client is more likely to buy from you when he or she can trust you and see you as an honest and sincere dentist with integrity. In this step, you have to 'prove' your claims and help a person believe and trust you. Important action guides in validation include:

1. Benefits of the service/product.
2. Justify price and emphasize value (NB: cost has implications on the following: money, time, risk, potential problems, potential mistake of purchase, negative responses of other people).
3. Offer proof and evidence...only show patient what is relevant to them. 4. Reassure and reinforce to neutralise the fear of buying. If there is fear or other factors, show understanding and support. In principle, people want your dentistry to look good, feel good, and last a long time...it's as simple as that!

STEP 5: NEGOTIATE

This step is fundamentally about welcoming and understanding any objections or concerns a patient has. It is important to listen, without interrupting. Paraphrasing with a totally empathetic approach is useful. Identify and isolate the specific objections and then discuss possible solutions. Ask the patient for the best solution, rather than tell them. This is far more effective and powerful. Patients often have financial concerns. By having excellent verbal skills and a range of finance options to fund the dentistry, most patients will say 'yes' if they want the dentistry. This step should not take long. If it does, then you have not taken enough time, care and effort during the proceeding steps.

STEP 6: THE CLOSE

'You don't sell in the close, you close after you've sold'.

Closing is simply asking for a decision or a closing action when a person is ready to say 'yes'.

Don't ask for a decision until:

1. You've understood your customers' needs or wants
2. You've offered a solution that they like and want
3. You've worked through concerns and objections
4. You've agreed on price, terms, or delivery time.

Action guides in closing:

1. Ask trial closing questions* to get opinions and responses
2. Listen to and reinforce each response
3. Restate how the benefits will outweigh the costs.
4. Ask for a decision.

* What other questions or concerns do you have that we need to discuss before making a decision?

* At this point, do you clearly see how the benefits of my solution outweigh the investment you are making?

Asking questions and listening to opinions is a powerful method of persuasion.

The following clues may become apparent:

- You didn't understand their needs completely, or you didn't Interview well enough
- You didn't demonstrate well enough how your product or service will fill their needs
- You didn't validate the purchase
- You didn't negotiate to reach an acceptable solution
- They either can't make a decision, or have no sense of urgency.

"You don't sell in the close, you close after you've sold"

Try and work out which step you missed and attempt to complete it!

WHAT TO DO WHEN CLIENTS SAY 'NO'

Try and discover:

1. Is it a case of nonacceptance with no chance of reopening, or
2. Is there a chance of working out a solution with continued dialogue.

Re-entry questions:

1. Where do you want to go from here?
2. Was my solution what you wanted?
3. Have questions or concerns popped into your mind that we haven't discussed before?
4. What can I do at this point to best serve you?

Do not put any pressure at this point. Have a genuine desire to understand their feelings.

SUMMARY

People will open up and trust you more when you listen to them, genuinely care about them, and have a sincere desire to understand them. By adapting a 'go the extra mile philosophy' that is genuinely held as an internal value, this soon expresses itself as an outer demonstrated behaviour. By using a non-pressure selling technique, you will actually sell a lot more. With confidence and much practice, effective communication with people becomes easier. By creating exceptional value for people and delivering excellence in dentistry, the dental fee does not become the issue. Selling with integrity builds your own self-respect, and the respect others offer you. This in turn will provide you with the greatest personal rewards for you to enjoy...

The important client consultation

A cosmetic imaging demonstration gives patients a visual stimulus

Internal Bleaching

A CASE REPORT

By Manny Vasant MBE

There are various methods of internal tooth whitening which include use of various strengths of hydrogen peroxide (Superexol), sodium perborate (Bocasan) or carbemide peroxide.with or without the use of heat and/or light. Another variable is the length of time the agent is applied for i.e. walk in method or simply the chairside application and the number of visits carried out.

The current contract probably makes it unviable to carry out internal tooth bleaching over more than one visit. If definitive restorations such as porcelain veneers are planned it is often better to wait 6 months for the result to stabilise so correct shade can be chosen. Bonding may be also be compromised if this is carried out within six weeks of application of bleaching.

The oldest technique is probably includes the use of 30% - 35 % (100-130 volumes) of hydrogen peroxide. Whilst the efficacy of this method is undoubted, there remains a problem with handling of this liquid which can cause a serious burn to the adjacent oral mucosa as it is impossible to control and contain the liquid to the access cavity. In order to facilitate application, "carriers" for the hydrogen peroxide are commercially available. These are rather expensive whilst the actual liquid (hydrogen peroxide) is rather inexpensive. Essentially the so called "carrier" is talc. Whilst one could use the talc that is readily available in talcum powder to covert the hydrogen peroxide to a convenient gel form, I have found a novel way to do this.

This is achieved by quite simply mixing a drop of 30 % hydrogen peroxide using 10 % carbamide peroxide (bleaching gel) from any manufacturer in a dappens dish.

Technique summary:

1. Remove gutta percha to a level about 1-2 mm below the CEJ. Remove any carious or heavily stained dentin.
2. Use radiopaque glass ionomer (e.g. Fuji 9) to seal the GP point.
3. Apply rubber dam.
4. Mix 10 % CP with one or two drops of 30 % Hydrogen Peroxide
5. Carry this into the access cavity and externally (inside/outside bleaching) with a suitable instrument
6. Heat an old instrument red hot in an open flame and carry it into the access cavity. The gel will start bubbling almost immediately showing a colour change. Repeat this 7-10 times renewing the gel if necessary.
7. Fill the access cavity with GLC or composite as required
8. You could repeat this procedure within a few weeks or months if necessary or combine it with walk in bleach technique

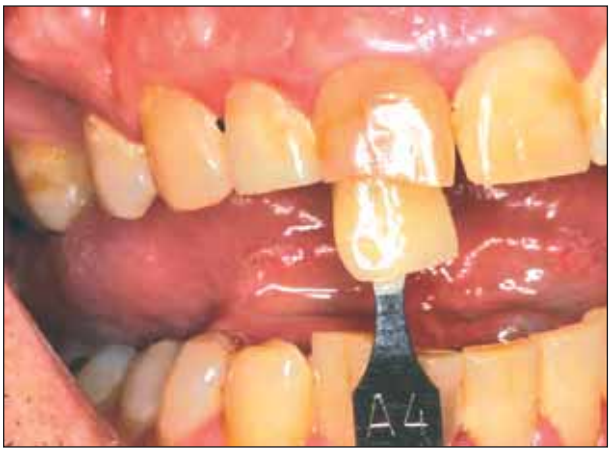


Figure 1: UL1 preop

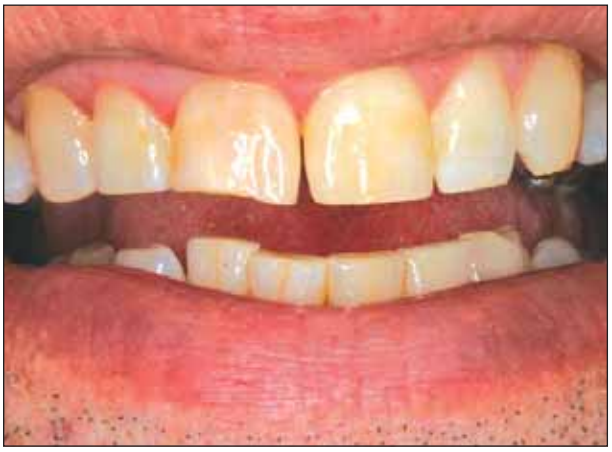


Figure 2: UL1 post op (half an hour later)

Further reading and contacts:

1 Text Book Bleaching Techniques in Restorative Dentistry. Linda Greenwall. Price: £85.00. ISBN: 9781853177729. ISBN-10: 1853177725

2 Hydrogen Peroxide 100 volume is available from John Bell & Croyden, 50-54 Wigmore Street, London W1U 2AU. Telephone: 020 7935 5555

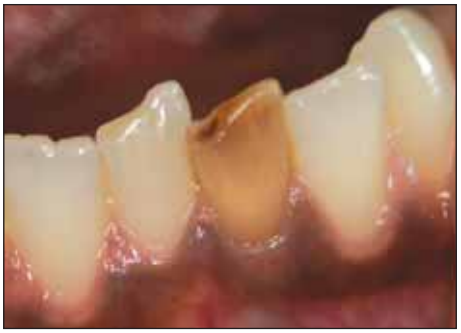


Figure 3: LL1 preop

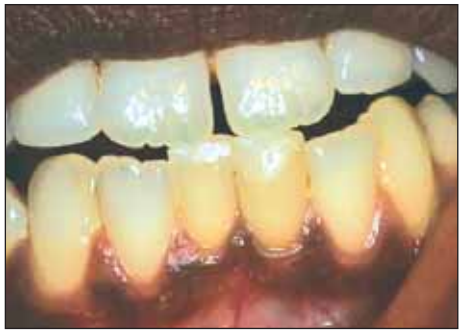


Figure 4: LL2 post op bleaching (comp restorations incisally on LR1 LL1

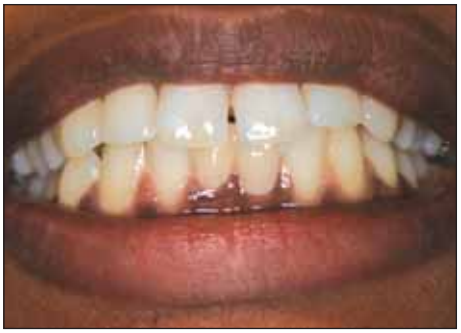


Figure 5: Competed PVs at LR1 LL1 6 months later

What have we been up to?...

This years' Annual Summer BBQ had entertainment for all!

The 2005 AOG Annual Ball – the highlight of our social calender

Our Mehfil Night was a great success

On a more serious note, the AOG helped with charity work in Sri Lanka (See page 16).

Flow and Fill: Contemporary Endodontic Obturation

Sanjeev L. Bhanderi BDS MSc

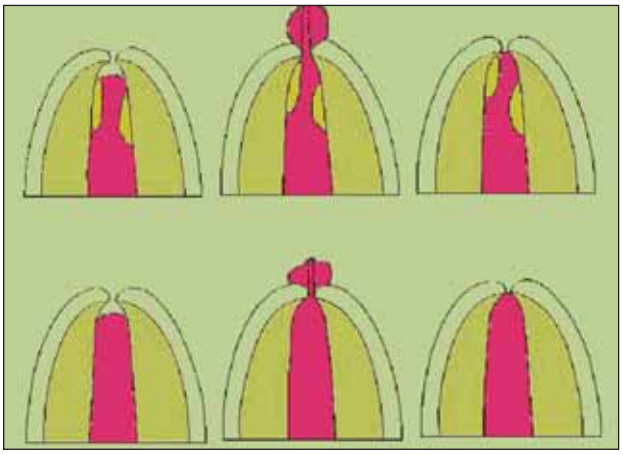


Figure 1: Top 3 apical seals are inadequate. Bottom 3 cases are satisfactory.

Clinical endodontics has undergone a paradigm shift over the past 10 years and is almost unrecognizable compared to what many of us were taught at dental school. Technology and digital equipment has given us the opportunity to change the way in which we can treat the endodontic challenges that patients present. However, as we discussed in the previous article, in spite of all this 'new age' technology, the principles of endodontic treatment still remain unchanged:

- An aseptic technique
- Good access into each canal system
- A 3-dimensional fill of the pulp system

These factors form the foundation of successful endodontics as the disease process we are trying to treat is of microbiological aetiology and there is only one place where these bugs tend to come from: the oral cavity.

Access, Access, Access!

We have discussed the role of adequate and judicious access into the pulp system to allow effective chemo-mechanical preparation. This will be equally vital during the latter stage of the procedure when the canals are sealed prior to coronal restoration.

The coronal access cavity should flow into the coronal flare of the root canal orifice and down a continuous smooth taper towards that hallowed apical constriction, the working length. This is important from a technical viewpoint because the clinician must be able to introduce the obturation material to the working length and then apply an appropriate packing technique as close to this level as possible to provide the initial apical seal. Complacency at this stage could lead to eventual leakage and pathological failure.

Remembering the fact that it is impossible to completely sterilise the pulp system, it is imperative that the seals at this level are complete. Any voids in the apical seal will allow apical fluid (or indeed coronal leakage) into the canal space and reactivate harbouring bacteria, which will then proliferate and produce inflammatory mediators. This starts a cycle of reactivation of the endodontic lesion as these toxins leak back out in to the apico-periodontal tissues and perpetuate an inflammatory lesion.

Gutta Percha Obturation

Gutta percha per se is an isomer of natural rubber (poly-isoprene), making it a very suitable root canal filling material. Unlike rubber, it has a high elastic limit and is in fact ductile (i.e. It will break quite easily under strain). As a result of natural air voids in dental g.p., it can be compacted under pressure to fill the pulp space. This property is also modified by the additional ingredients that make up dental 'g.p.', particularly zinc oxide that is in fact its major component!

Constituents of dental gutta percha:

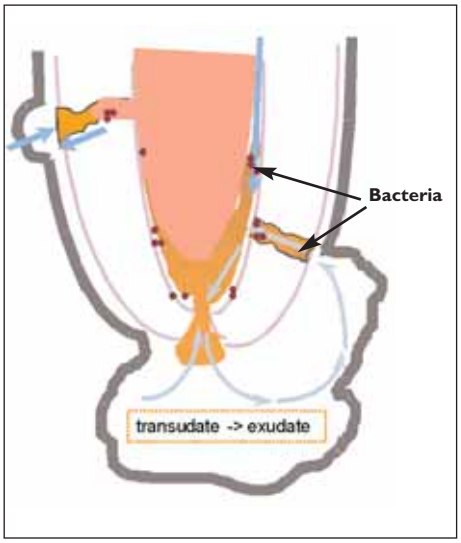
• Zinc Oxide	56 - 75 %
• Gutta Percha	19 - 22 %
• Heavy metal sulphates	2 - 17 %
• Waxes & Resins	1 - 4 %

Cold Lateral Condensation

For cold lateral condensation, a little known fact is that the master gutta percha (g.p.) point must be condensed (packed) by the spreading instrument (a finger spreader is the best implement) to within 2-3 mm of the working length, otherwise there is no reliable seal other than that provided by the sealer cement and simple frictional fit of the master point. This then demands certain prerequisites of the initial canal preparation:

- An adequate **taper** is required to accommodate both multiple g.p. points and the finger spreader to within the vicinity of the working length in the early stages of condensation

Figure 2: Cycle of 'Re-activation'



- Adequate **apical preparation** size to allow the master g.p. point to slide smoothly down to the working length without folding or buckling around a curvature

Traditionally, with the 1mm 'step-back or 'crown-down' hand preparation techniques, a 5% taper has been produced. With contemporary nickel-titanium rotary systems, the 6% to 7% taper that is created is seems to be satisfactory for cleaning and obturation with the cold lateral condensation.

Of course the aim of the cold technique is to condense as many g.p. points together as possible and rely on the sealer cement to compensate for any deficiencies and the canal seal.

Thermal G.P. Techniques

It has always been the endodontist's aspiration to be able to fill the pulp system in 3 dimensions predictably.

We know that when g.p. is heated, it will begin to flow and become 'thermoplasticised'. This allows a denser obturation of the pulp space. Hence, contemporary g.p. techniques utilise this versatile property and allow either the 'thermoplastic' delivery of soft g.p. into

the canal system or apply heat to g.p. once placed inside the canal space.

There are a number of commercially available thermal g.p. systems, the most popular of which are:

- Microseal: a rotary-mechanical ('multiphase') compaction using an '-phase' cold g.p. point that is compacted together with pre-heated soft g.p., using a rotary nickel-titanium spreader (Kerr-Sybron UK Ltd.)
- System B: an electrically-activated heat source applied to cold g.p. within the root canal (approximately 200ºC) (Kerr-Sybron UK Ltd.).
- Thermafil: or 'g.p. on a stick'. A preheated plastic dowel-supported g.p. is placed into the canal and severed at the orifice. (Kerr-Sybron Corp.)
- Obtura II: an injection-moulded system best suited as a supplementary back-fill technique to other systems (Spartan Corp. USA)

There are also a number of newer systems that use a single g.p. master cone supplemented with surrounding sealer-cement. These rely exclusively on the properties and distribution of the sealer to provide the fill. In the author's opinion, this would be less predicable than the physical condensation of a semi-solid material within the canal space and so would not advocate such techniques, despite manufacturer's claims.

The author's preferred technique, after using all of the above, is the Microseal system for the following reasons:

- It combines the best aspects of both the traditional cold lateral condensation and thermoplastic g.p. techniques. The master point is cold condensed with a finger spreader to the working length to ensure an apical seal. This is then reinforced by back-filling and condensing warm soft g.p. up to this level.
- A rotary flexible niti. condenser activated at 4000-5000 r.p.m. packs and coalesces the masterpoint with the thermoplastic g.p. effectively and rapidly in a few seconds to leave a 3 dimensional obturation.

Newer Concepts

Gutta percha, in spite of its ease of use and versatility, does have its disadvantages in being a non-adhesive material. As a result, g.p. exposed to the coronal salivary leakage will leak quite easily with possible bacterial penetration to the apical tissues within a month.

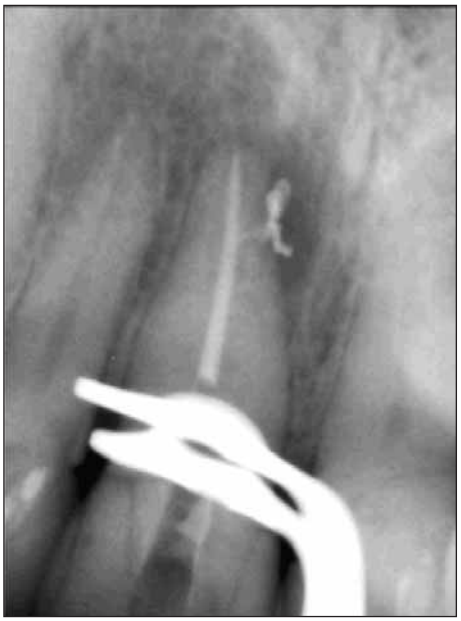
Thus, research is continuing to find a better alternative and, indeed, an exciting new product (RealSeal, Kerr-Sybron Corp.), is now commercially available that aims to use a resin-based material that can bond to the root canal walls in much the same way as conventional composite restorative materials. By bonding the core filling material (Resilon, a thermoplasticisable resin similar in handling to g.p.) to the root dentine with a self-etch primer/sealer Epiphany, there is the potential of achieving a fluid-tight seal whilst strengthening the root structure itself and providing a homogenous restoration from apex-to-crown.

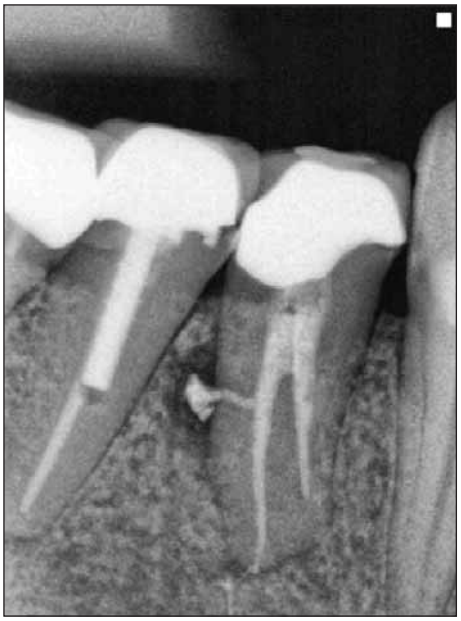
However, as with any resin-based system, it may be technique sensitive and achieving a predictable dentine-bond in the clinical environment is difficult even at the best of times at the coronal end of the tooth. SO, further research will reveal the long-term sealability and success of this new material, so watch this space….!

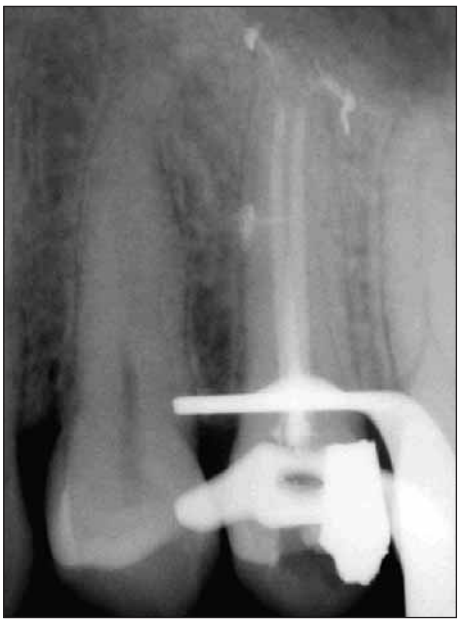
As advised in the previous article, any new technique must be tried and the only way of doing this is by attending hands-on endodontic courses and then practicing on extracted teeth. Using your preferred new thermal g.p. system must be mastered before applying it to your patients, but all the systems mentioned above will undoubtedly make the final stage of your endodontics less tedious, far more enjoyable and predictable than before.

Dr Bhanderi welcomes your comments and questions: please contact on www.endosolutions.co.uk

System	Setup Cost	Usage Cost	Technique	Heat delivery	Procedure Time
Cold Lat.	Low	Low	Cold spreading	none	long
Microseal	Moderate	Low	Rotary compaction	15 secs	short
System B	High	Low	Hot spreading	Instant	moderate
Obtura	High	Moderate	Hot injection	Instant	moderate
Thermafil	Moderate	Very high	Heated carrier	2-3mins	short







Clinical cases by the author using the Microseal GP System

The AOG Saves Lives

By Raj Raja Rayan

On the 14th of August 2006, the Sri Lankan Air Force, 'inadvertently' bombed the square mile of the acknowledged 'Peace Village' in the North East part of Sri Lanka where there were seven officially registered orphanages. These included orphanages for little girls as well as for deaf and blind children and several for victims of the December 2004 Tsunami.

The North and East of Sri Lanka is, historically, Tamil territory. There has been a civil war for control by the Sinhalese majority Government since not long after independence in 1948. A tenuous peace agreement between Tamils and Sinhalese had been in place for over 5 years. It recently evaporated following the promise of billions of dollars of tsunami funding.

An orphanage was hit by Air Force bombs and 61 young girls were killed. The AOG was in turmoil as it had recently helped finance a brand new orphanage for children in the North East of Sri Lanka. Several emails were sent to the NGO which constructed the orphanage, the UN and WHO – to which there were no replies. It was a desperate time.

Two days later, confirmation arrived that the site that was bombed was the very site from which children had been taken for the orphanage supported by the AOG. Some 241 children who lived there had already been re-housed in modern new facilities on a completely different site close to Western NGO offices. The AOG kids were safe. The AOG buildings were safe. Members of the AOG inadvertently saved the lives of at least 241 young girls, most of who were under the age of 12 years.

The AOG had supported the orphanage because of the tsunami of 2004. On Boxing Day 2004, a freak tsunami devastated South Asia killing well over 200,000 people. On the North East coast of Sri Lanka, some 278 people out of every thousand who lived by the shore died. There was plenty to do. By the 14th of January 2005, Manny Vasant and Raj Majithia, with the help of Dental Directory, held a charity dinner. President Rishi Mehrotra made a moving appeal. Dental Directory, Henry Schein, Kavo, Dentsply and many other organisations donated free goods for auction. Over £100,000 was collected on the night with numerous other pledges. As usual, the AOG decided to support a health care project and funded several building to house lecture theatres and hostel accommodation for paramedics and other health care workers. This project was completed and the first batch of students as health care support workers are currently having their courses.

Several individual members of the AOG wanted to help further – especially since international aid had been blocked by the international community till the politically bickering parties in Sri Lanka came to an equitable arrangement of how to share the spoils. Widespread corruption in relation to aid was also alleged. Hence the unfortunate victims of the tsunami, especially in the disempowered and impoverished North East of the island, were left without much support. Members of the AOG, including Manny and Meena Vasant, Raj & Tarun Majithia, Rashmi & Mahesh Patel, Amarjit & Dipi Khambay, Tej Vasir, Rash & Norah Patel amongst others, contributed five figure sums each to construct at least one of the buildings within the orphanage. Together, they saved over 240 lives.

There are still some 500 children living in temporary accommodation. £11,500 will allow an entire hostel building to be named after the donor. Smaller sums are used to construct common buildings or improve facilities. For photographs, plans of buildings and costs, please visit the AOG website.

If you want to make a contribution, please contact Manny Vasant on mvasant@btinternet.com or Raj Majithia on rajmajithia@dsl.pipex.com

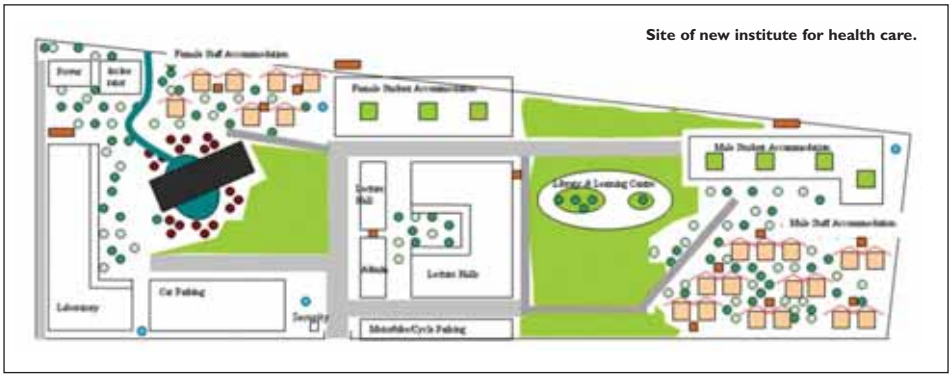
Thanks to all who have contributed to the AOG's tsunami effort. AOG activity not merely enhances life – but saves lives.

Orphans in 'Peace Village'.

Leaky mudhuts riddled with termites.

New homes being constructed.

Children in new premises.



Site of new institute for health care.

Editors Note:

The AOG has supported numerous projects with substantial cash donations including over £80,000, for the Gujarat Earthquake to Lord Dholakia's charity, other sums to the Deendayal Project in Chitrakoot, the Tanzanian Musoma project this year).

"Limited companies – Should I practise as one?"

By Arun Mehra

Samera
DENTAL CHARTERED ACCOUNTANTS

I often get asked the question "Should I run my practice as a limited company?" and my standard response is one that usually ends with "It's not currently possible to run a dental practice as a limited company, with the exception of a few body corporates!"

However, changes are afoot, and recently the GDC gave the go-ahead for dentists to run their businesses through limited companies, rather than as sole traders or partnerships.

In light of these proposed changes in statute our next four articles intend to discuss the various aspects of incorporation, including the short and long term advantages and disadvantages.

We want to draw your attention to the background of the changes in legislation, the distinction between a sole trader/partnership and a limited company, and the general advantages and disadvantages of incorporation for a dentist.

Why the changes?

Currently the vast majority of dental practices are set up as sole traders or partnerships, with the exception of a few dental body corporates which are limited companies.

As sole traders and partnerships, a dentist typically draws an income from the business, on a monthly basis.

Some partnerships may operate according to a pre-set agreement between the partners, especially on routine operational and profit sharing aspects of the practice. Generally though, most dentists have a rather casual administrative approach, especially with regards to drawing money from the business, record keeping and so on. From the owner's point of view this creates flexibility but in reality it often results in the full potential of the practice not being reached.

Under a limited company a practice will be compelled to operate in a regulated environment, especially in terms of administrative aspects. The company will be subject to Companies Act criteria, and the director's held responsible for their actions.

We believe this administrative regulation will lead to better financial disciplines and systems & procedures, and, if these procedures are implemented correctly, an increase in growth and profitability.

The impetus for the changes comes from the Government's decision to reform the Dentist's Act. Part of a major overhaul of the Dentist's Act, once the reforms are approved at the Government level, the GDC will have the power to reform the Dentist's Act and hence allow practices to incorporate (become a limited company).

So what are the differences between a sole trader/partnership and a limited company?

The primary distinction between a sole trader/partnership and limited company is that the incorporated organisation is a separate entity in the eyes of law. It is treated as independent of its owners and shareholders.

In addition, the limited company has only a limited liability to the extent of its share holders' funds, whereas a sole trader's or individual partners' "liability" is much wider in scope. Therefore, as a limited company, a dental practice and its principal dentist has greater protection against any prospective legal claims. The legal claim can only be made against the company and NOT the individual principal dentist.

Advantages and disadvantages of incorporation

Before deciding whether a limited company is the right choice for you, you need to consider the advantages and disadvantages of incorporation with particular reference to your practice's unique circumstances.

Advantages

The following are the main advantages of incorporation:

- In a business with more than one owner, it is far more comfortable to run the business through the medium of a limited company with the rules and regulations this will entail. This way the rights and duties of each owner are clearly set out and leave no room for "misunderstandings."
- The business becomes much easier to transfer in the case of a business interest represented by shares. This is particularly useful if the owner wants to transfer the business to a family member or to an outsider.
- Some may prefer to trade as a limited company due to the perceived status as compared to trading under his or her own name. Being a limited company may potentially reassure patients, suppliers, the general public, banks and other lending institutions as to the credibility of the organisation.
- In the modern commercial world, where litigation is common, sole traders and partners may find themselves increasingly vulnerable. This is particularly true when your practice grows, since your commercial risks grow with the practice. By incorporating, commercial risk can be limited.
- One of the major benefits of incorporation is the possibility of saving tax and national insurance contributions, especially in the long run. This is especially true when your practice has grown and has pushed you into a higher income tax bracket.
- In a limited company scenario, the possibility of extracting a combination of a salary and dividends can reduce the tax and NI contributions, as explained in more detail in a later article in this series.

Disadvantages

Although the list of advantages may look convincing, you should also bear in mind the potential disadvantages:

- A PAYE (Pay As You Earn) system is usually required and the owners (now directors) are prevented from drawing money from the company on an ad hoc basis, except as loans given to directors.

Continued overleaf

"Limited companies – Should I practise as one?"

Continued from previous page

- As directors of the limited company you are liable to file the annual accounts and tax return at the Companies House, in addition to the maintenance of minutes on board meetings etc.
- As in the case of personal income tax returns, there'll be automatic fines for late filing of returns with the Inland Revenue and Companies House.
- There are likely to be taxable "benefits in kind" giving rise to tax liabilities on the directors e.g. company cars, and fuel etc of which proper records should be kept.
- There'll be an element of bureaucracy involved in the form of systems and controls since a company is a separate legal entity and its former owners now become employees as well as shareholders.
- It may not be easy to end a company since it has a separate legal entity, however owners (shareholders) can always relinquish their shares for a consideration as an exit strategy from the business.
- Set up costs and an increase in annual accountancy fees due to greater administration requirements.

Of course most of the disadvantages can be attributed to the tightly regulated procedures inherent in operating a limited company, which in turn will encourage greater financial controls and systems leading to better practice management techniques and therefore more profit!

So what should you do?

In this article we intended to draw your attention to the preliminary aspects of incorporation and its main advantages and disadvantages. Incorporation may not be for everyone. It is important to weigh the advantages and disadvantages of incorporation in light of the particular circumstances of your practice, its growth objectives, and your exit strategies and retirement options etc.

However, if the Chancellor does not change the current small company tax rules, in our opinion, for many practices, the advantages will outweigh the disadvantages of turning your practice into a limited company.

Contact details:
Xen House, 336 Old York Road, London, SW18 1SS Tel: 0870 446 0620
www.samera.co.uk

Silver Alloys: Do we need the variety?

Manny Vasant *MBE BDS MGDS FFGDP FDS Dip T Ed*
Specialist in Prosthodontics (www.mkvasant.co.uk)

Silver amalgam went through no major changes until 1962 when Youdelis developed an alloy containing high than normal copper content by adding an admixed copper-eutectic sphere. This allowed formulation of the gamma 1 phase and a new phase composed of copper and tin that eliminates the weaker and more corrosive prone gamma 2 phase.

Today's alloys are composed of silver (40-70%), tin (12-30%), copper (12-30%), indium (0-4%), palladium (0.5%), and zinc (0-1%). The zinc reportedly aids the amalgam by reducing corrosion.

Despite adverse publicity regarding the mercury toxicity (see below), amalgam still remains the material of choice in many situations. It is by far the most cost-effective material and not technique sensitive. In clinical practice, there appears to be less secondary caries around silver amalgams. The design of the cavity has changed considerably. A long term study conducted by Osborne and Gale concluded that the most important factor in the length of the service of an amalgam filling was the preparation width. These studies strongly support conservative preparation and the resulting smaller preparation. A combination of fissure sealants and amalgam offers many advantages.

Within the currently available alloys, there is a choice of spherical and lathe-cut and admixed varieties. The spherical alloy (especially with higher silver content) with an increased surface area, is more reactive with mercury, requires less mercury for trituration and is generally quicker setting. It is also smoother on finish and requires less condensation pressure to pack in the cavity. Furthermore there are high copper non-gamma 2 alloys which reduce the tin-mercury phase, and are more corrosion resistant.

"…it is obvious that a discerning practitioner should possess more than one type of alloy and vary the use according to individual needs."

The lathe-cut alloys are generally rougher, more difficult to triturate and other than being cheap offer little advantage.

Applications

1. Large Class V cavities (Fig 1-4) and around pins:

The above properties of each alloy could be used to our advantage depending on the requirements. For example, where it is difficult or impossible to use a matrix such as a disto-buccal cavity in a tooth, reduced condensation pressures are useful as the amalgam can simply be "tapped" in place. When one tries to use a lathe-cut alloy in these situations, it gets very frustrating as during condensation the amalgam simply runs out of the cavity!

This property is also useful for condensing around pins. It seems reasonable to expect that spherical alloys may also be easier to condense into retention slots. The latter are now preferred instead of threaded pins in order to reduce stresses in the dentine.

2. Core Build Up:

There are many materials designed for a core build up which can be immediately prepared for crowns. All are based on either Glass Ionomers or Composites or a combination of the two. The Glass Ionomers are inherently weak, albeit adhesive and composites absorb water. Whilst all these materials can be used successfully as space fillers (where there is sufficient tooth structure left to support a crown), the challenge is greater when one needs a material to actually support the supra-structure. In extreme cases, a cast core may be the only answer.

The advantage of using amalgam is firstly

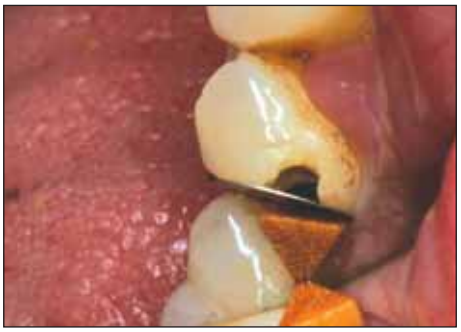


Figure 1: Caries due to food packing and poor plaque control

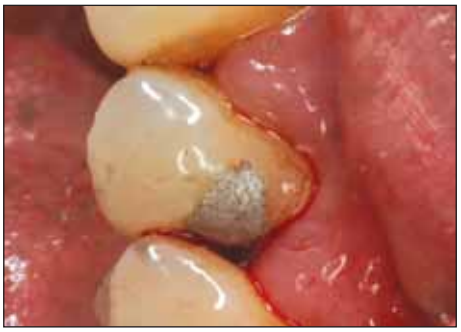


Figure 2: on completion

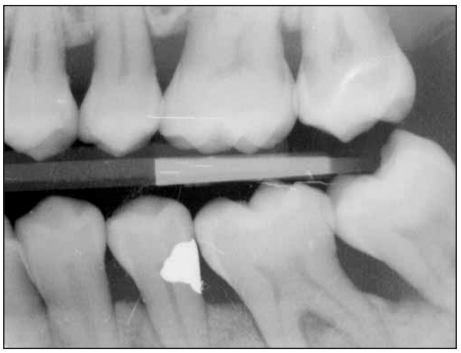


Figure 3: Radiograph of above patient

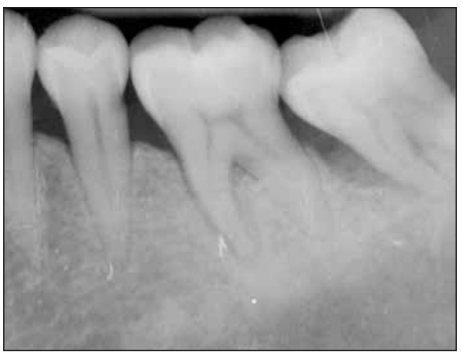


Figure 4:

its ease of use and probably more importantly the similarity in texture to dentine when cutting. It is said it "feels like man made dentine". As with any other material the margins should be sited on natural tooth and ideally 2 mm of the vertical height of the tooth should be available throughout the circumference of the tooth.

A spherical alloy (such as Kerr Tytin), due to its quick set may be used for core fabrication which can be prepared within about ten minutes or so.

Spherical alloys reach superior 1 hour compressive and tensile strengths compared to lathe-cut alloys. They may be therefore preferred in young persons where advice to refrain from eating may not be followed.

3. For simple Class 1 and 2s

The alloy generally favoured in this situation is high copper non- gamma 2. This is easy to use and is very corrosion resistant and does not need to be polished.

All amalgam restorations initially leak at the interface. Corrosion products eventually fill this space. In high copper alloys this may not happen for a long time. Copal resin significantly reduces microleakage although its solubility in oral fluids limits its effectiveness to about 6 months. Amalgam bonding agents are also useful in this regard.

4. Two adjacent Class 2s (e.g. DO on first molar and MO on second molar) where a tight contact may be difficult to achieve.

When these are restored together, it is often helpful to fill one of the cavities with a spherical quick setting alloy first. The matrix band is then removed and inserted on the adjacent tooth where an admixed alloy can be used to pack the cavity with enough condensation pressure to ensure that a good contact point is established with the newly filled cavity. If one tries to use spherical alloy in the latter situation, especially where the contact point is potentially difficult to form, an open contact may result. In extreme cases it may be necessary pre-contour a band using contouring pliers and resort to lathe-cut alloy which will take higher condensation forces and retain the band tight against the adjacent tooth.

5. Large Amalgams (Amalgam crowns)

There are situations for example when an endodontic status of the tooth is being monitored or for economical reasons, it may not be appropriate to do a definitive restoration on a tooth. In such cases, it is very prudent to do a large amalgam restoration preferably bonded to the underlying dentine. Whilst the data on long term stability of resin bonded restorations is uncertain, it seems to be good practice to use adhesives on such restorations. Panavia X, Allbond, Optibond and Amalgabond are amongst the many adhesives that can be used for this purpose.

6. Repair of amalgam defects:

Where there are ditched margins (no caries), current recommendations are not to replace the filling but merely seal the defects with a sealant.

7. Moisture contamination:

Where it is impossible to control moisture contamination through adequate isolation, it may be prudent to use non-zinc alloys. The latter tarnish more easily, but the zinc containing alloys if contaminated with moisture may cause delayed expansion and post-operative pain.

Amalgam toxicity facts:

- 30 μg could be released during a clinical session (using water cooling and aspiration)
- Urinary mercury levels for dentists 2.18 mmoles mercury/mole creatinine
- Urinary mercury levels for nurses 2.26 mmoles mercury/mole creatinine

What it means:

- 0-5 – Band A – Normal for occupation
- 5-10 – Band B – Some exposure
- 10-20 - Band C – Significant exposure
- >20 - Band D – Exceeds HSE Health Guidance Value

Mercury Toxicity:

Forms

- Metal (Hg0) (absorption ~ 0.01%)
- Inorganic ion (Hg2+) (absorption ~ 1 -7%)
- Organic (methyl or ethyl mercury) (absorption ~90%)

Access to body

- Skin
- Vapour
- Gut

Mercury in Silver Amalgam

- About 1-3 μg/day as amalgam particulate Hg0
- In parafunctionists, ingestion ~45 μg/day as amalgam particulate or Hg2+
- But gut absorption is about 1 – 7 %
- Half life is about 20 – 90 days
- Fish consumption is about 4 μg/day of methyl mercury (absorption >90%)
- Intake from all sources other than amalgam ~20 μg/day of Hg2+

From the foregoing, it is obvious that a discerning practitioner should possess more than one type of alloy and vary the use according to individual needs.

Newer developments have focused the need to reduce residual mercury in amalgam in order to reduce the alleged (potential) toxicity are described in Part 2

In Next Issue

Part 2 - Newer developments with emphasis of reducing mercury toxicity.

Mouth Cancer Awareness

Dr Vinod K Joshi

Dr Vinod K Joshi is a consultant in restorative dentistry at the Restorative Dentistry Oncology Clinics held at St Luke's Hospital, Bradford and at Pinderfields Hospital, Wakefield. He is the founder of the award-winning Mouth Cancer Foundation, which provides support for mouth, throat and other head and neck cancer patients and promotes mouth cancer awareness in the UK.

Mouth Cancer Awareness Week

Mouth cancer causes more deaths per number of cases than breast cancer, cervical cancer or skin melanoma. In the UK, there has been a 19% increase in cases from 3,673 in 1995 to 4,405 in 2002 and 13,000 people in the UK are currently living in the shadow of this debilitating disease. The mortality rate from mouth cancer is just over 50% due to late detection. Despite treatment, there were 1,703 deaths in 2002 – that's approximately one death every 5 hours. The chances of survival are much improved if the cancer is detected early and rapidly treated.

Mouth cancer patients suffer greater owing to various disabilities like facial deformity, loss of teeth, damage to tongue and throat with consequent difficulty in talking and eating in public places. Yet they do not receive the attention and support other cancers invoke.

As dental health professionals, we are the oral carers for our patients and are best placed to be the lead advocates in the fight against mouth cancer. We should be warning our patients of the dangers of tobacco use and alcohol abuse. We should alert our Asian patients and public of the dangers of paan and gutka chewing. We should be screening our patients for mouth cancers. We should also be involved in efforts to increase awareness of mouth cancers.

"Mouth cancer causes more deaths per number of cases than breast cancer, cervical cancer or skin melanoma."

This year, Mouth Cancer Awareness Week will be running from Sunday 12 November to Saturday 18 November 2006. To end the Week the Mouth Cancer Foundation is organizing a free, sponsored 10K Walk on Sunday 19 November in Hyde Park, London, at 10am. It is planned to be a big event among the dental profession and public with much media coverage. All in the dental profession are invited to make this Mouth Cancer walk their event by participating individually or by sending teams (dental practices, dental schools, dental hospitals, speciality associations and dental companies) to take part and show the professions solidarity in fighting mouth cancer. There will be a mobile screening unit for mouth cancer. Dentists will be offering free screening on the day. The BDA, the GDPA, the FGDP, the BDHF and the dental press will be helping with publicity. Many other organisations are being invited to participate. You are invited to particpate in the Walk and/or the screening. It would also be a great opportunity for the various organisations to be involved in Mouth Cancer Awareness Week by coming together in a high publicity event. We hope to make this event a successful one for all participants.

Mouth Cancer

Oral and pharyngeal cancer is the sixth most common malignancy reported worldwide, and one with high mortality ratios among all malignancies. The global number of new cases is estimated at 405,318 annually, with about two-thirds of them arising in developing countries. The proportion of deaths per number of cases is markedly higher from oral cancer than breast cancer, cervical cancer or skin melanoma. This is largely due to late diagnosis. Yet the precursor tissue changes that lead up to a malignancy are visible to the naked eye, making them an easy target for identification.

"In the UK, there has been a 19% increase in cases from 3,673 in 1995 to 4,405 in 2002 and 13,000 people in the UK are currently living in the shadow of this debilitating disease."

So the question is, why is the early detection rate so low?

Screening

One answer may be poor screening rates. A recent study of primary care medical practitioners revealed that many GPs felt routine head and neck screening should fall to dentists. Implementing opportunistic screening in a primary care setting, alongside education on risk factors, could increase early discovery of lesions and have a positive impact or morbidity and mortality. Identifiable co-existing risk factors like smoking and alcohol consumption in patients with a lesion should heighten suspicion, but it is important to remember that 25% of mouth cancer patients have no known risk factor. Aside from the risk factors of smoking and chewing tobacco, oral cancer occurs more frequently among people who chew areca nuts in betel quids, such as paan, supari and gutka. This is a common cultural practice among the immigrant population in the United Kingdom from Pakistan, Bangladesh, India and other countries in that region.

Screenings are quick, painless and cost-effective and can significantly contribute to reducing the death rate of mouth cancer cases. Take the time to educate and screen your high-risk patients. Remember, mouth cancer is both preventable and treatable if found early.

Suspect to detect

A high index of suspicion is a prerequisite for early diagnosis and referral of patients with oral cancer. The oral mucosa tends to heal itself in two weeks, so any changes to a patient's mouth that last three weeks or more should be checked out. Extraoral and perioral tissues should be examined first, followed by the intraoral tissue. Malignant lesions, usually discrete entities located in the high-risk areas of the mouth, are not associated with a specific aetiology, and persist despite removal of local factors. Patients with urgent referral symptoms should be referred to a specialist immediately.

"The mortality rate from mouth cancer is just over 50% due to late detection."

The most common areas for mouth cancer to develop are on the tongue and the floor of the mouth. Individuals that use chewing tobacco are likely to have them develop in the sulcus between the lip or cheek and teeth in the lower jaw. Cancers of the hard palate are uncommon, though not unknown. The bases of the tongues at the back of the mouth and on the pillars of the tonsils are other sites where it is commonly found.

The earliest and most consistent clinical presentation of squamous carcinoma is the persistent red (erythroplakia) or mixed red and white (erytholeukoplakia) lesion. This is an innocuous appearing lesion, which is inflammatory, atrophic and shows mucosal alteration, with or without a keratinised component. Purely white (leukoplakia) lesions, that can't be rubbed off and arise without apparent cause, are considered to be premalignant, but the rate of change to malignancy in the Western World is comparatively slow with only 0.13 to 6% eventually becoming malignant. Only 6% of early invasive carcinomas or carcinoma in-situ have been shown to be purely white lesions.

The standard appearance of oral cancer is an ulcer with a raised rolled edge, which feels firm on palpation. Unfortunately, this typical presentation is often a late sign of oral cancer. In some cases the lesion may be raised without ulceration and there may be erythroplakia or leukoplakia associated with the lesion. In some cases of tongue cancer, the ulceration may be posterior and difficult to observe. In these cases, palpation of the tongue can reveal a mass or thickening, which may confirm the need for urgent referral. Any lesion, whether it looks benign or malignant, should be palpated.

Educate to eliminate

It is easy for high-risk patients to fall through the screening net as the incidence of risk behaviour, such as smoking and alcohol consumption, is highest among lower socio-economic groups that are least likely to visit the dentist. There is thus also a need for public education about mouth cancer and risky life-style behaviours.

Very few people know the early warning signs for mouth cancer, with many patients tending to view oral mucosal abnormalities, such as long-standing ulcers and white patches, as unimportant and treatable with over-the-counter products. Most people don't realise that a persistent mouth ulcer can be an early sign of mouth cancer when, in fact, it is one of the most common symptoms.

Tobacco is the predominant risk factor for mouth cancer. 75% of oral cancers are related to tobacco use, alcohol use, or use of both substances together. Using both tobacco and alcohol puts you at much greater risk than using either substance alone. The World Cancer Research Fund recommends that patients at risk avoid alcohol entirely. If abstinence is not an option, then guidelines indicate that men should consume less than two alcoholic drinks a day, and women less than one. The combined effect of tobacco and alcohol on mouth cancer risk is much greater. People who combine tobacco and excessive alcohol use face a 38% greater risk of developing oral cancer than those who abstain from both products. Asian patients should be educated about the risks of paan, supari and gutkha chewing.

Dentists have a key role to play in increasing awareness and early detection. Patients with lifestyles that put them at risk should be provided with health promotion advice to help them reduce their susceptibility. Leaflets and posters on lowering the risk of mouth cancer are available free of charge from the Mouth Cancer Foundation and can be used as discussion tools during consultations or displayed in the waiting room (see web site details below).

The Mouth Cancer Foundation

The Mouth Cancer Foundation is a registered charity (No: 1109298) that is dedicated to supporting people with mouth, throat and other head and neck cancer face the crisis of cancer and increasing public awareness of mouth cancer. It provides mouth cancer awareness materials and organizes the annual Mouth Cancer Walk.

"Register for this years 10k Mouth Cancer Walk at www.mouthcancerwalk.org"

Mouth Cancer Walk
www.mouthcancerwalk.org

Mouth Cancer Awareness Week
12 - 18 NOVEMBER 2006

Walk the talk at the end of **Mouth Cancer Awareness Week**

FREE ENTRY

for individuals and teams to the 10K Mouth Cancer Walk
in Hyde Park, London

Everyone's invited from 9.30am on Sunday 19 November 2006
Goodie bags, freebies and prizes!

Register today at
www.mouthcancerwalk.org

Organised by the **Mouth Cancer Foundation** registered charity no. 1109298
For t-shirts, wristbands, leaflets, posters and other awareness raising material
please visit **www.mouthcancerfoundation.org**

Sponsored by

sonicare the sonic toothbrush

biotène dry mouth relief

and supported by various other organisations and individuals

Appeal for Equipment for Tanzania and Update

By Manny Vasant MBE

For the last six years now I have coordinated dental and other charitable projects in Tanzania. AOG (directly or through her membership along with some of the trade and other individuals) has generously supported these projects either morally or financially. Here is the summary.

Mwanza Project run under the aegis of Hindu Union Hospital (a local charity):

Mwanza is the second city in Tanzania on southern shores of Lake Victoria. We had collected second hand equipment for this hospital some six years ago via an appeal in the AOG newsletter. Dental Directory, Nessor, Myerson and Bambach (Stools) were some of the companies who had made generous donations and/or supported to get the project of the ground. Essentially, the clinic is manned by a dentist who is employed by the hospital. Two other philanthropists fund part of his salary. There is two tier payment system whereby those who can afford it, pay a reasonable fee. Those who are below a certain income receive treatment free or at subsidised costs. Any profits are ploughed back into the system. Due to extra demand a new surgery is being fitted with brand new equipment donated by Henry Schein (UK). This is being fitted as we go to print. Once the new surgery is in place, it will open up two working surgeries working simultaneously.

Musoma General Hospital:

Musoma is a town on the eastern shores of Lake Victoria close to the Kenya border and not far from the world famous Serengeti National Park. It is located 125 miles from Mwanza. Musoma has suffered decadence in the last 30-40 years post independence which led to the exodus of asian and white population living there at the time. The hospital which was built by the British some 60 years ago has been seriously neglected due to lack of funding. It suffers severe shortages as a result.

Resuscitation Unit:

There are only two oxygen concentrators (to make oxygen out of air as there are no facilities to transport oxygen cylinders) for the whole hospital serving a population of several hundred thousand people! Young babies die routinely due to these shortages. AOG has contributed £1,000 towards some £25,000 collected from a charity walk organised by Arrif Lalani and myself on the 30th June 2006 along the River Thames. Some 120 plus people participated in the walk (included 96 VTs and 15 trainers and other supporters from Tanzania Development Trust) This will buy further 5-6 units and other vital equipment.

Dental Unit:

Southern Counties BDA have paid £4,000 towards refurbishing this unit. This is being done now. An engineer from Nairobi will be shortly going to both these places to fix the units as there are no local trades people out there to carry out this sort of work.

Thames walk raised £25K for Resuscitation unit

For further details please visit www.musoma.com or www.mkvasant.co.uk. or email mvasant@btinternet.com

If you wish to help in anyway or make donations, they can be made on line through Tanzania Development Trust a UK registered charity which can be linked from above websites. It is hoped that volunteers from the UK will go there and carry out work from time to time.

In addition to above projects we have been approached by a charity based in Dar-es-sallam (the capital city) for donations of two very basic dental units i.e chair, spittoon, cart (with motor), x ray machine (second hand in good working condition) . Please ensure that there are no missing parts and units have been professionally dismantled and carefully packaged ensuring no parts are missing. It must be in good working condition. It would be very helpful to have instruction booklets are avialble if possible. If any small components including nuts etc are missing, it renders them useless due to unavailability of parts out there. We can arrange collection in the London area for onward transportation. Please note due to the transportation costs involved and lack of skill to service these units locally, it is a waste of time to send broken units.

You may email me (mvasant@btinternet.com) photographs so we can select two best ones that are available. The simpler the better! If any trade wishes to get involved, please kindly email me.

www.musoma.com or www.mkvasant.co.uk. or email mvasant@btinternet.com

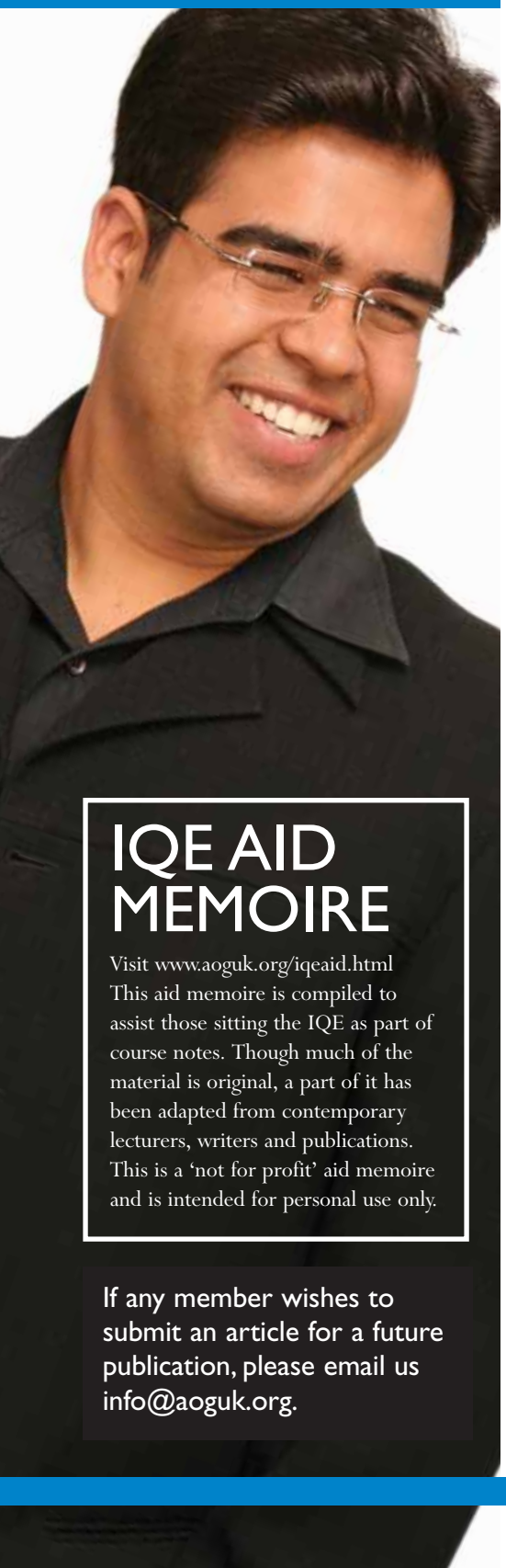
Mwanza current surgery being refurbished now

Musoma Dental clinic refurbishment funded by Southern Counties BDA (under helm of Dr Martin Miller President 2005)

anglo-asian dontological group

towards perfect practice

The AOG: Working for the benefit of our membership…



IQE AID MEMOIRE

Visit www.aoguk.org/iqeaid.html
This aid memoire is compiled to assist those sitting the IQE as part of course notes. Though much of the material is original, a part of it has been adapted from contemporary lecturers, writers and publications. This is a 'not for profit' aid memoire and is intended for personal use only.

If any member wishes to submit an article for a future publication, please email us info@aoguk.org.

New Deal from The Dental Directory

All AOG members can now receive a minimum 15.0% discount off the published prices featured in The Dental Directory Master Product Guide. All orders generated electronically, using either The DeskTop Directory off-line electronic catalogue or The Dental Dirtectory's on-line internet catalogue will automatically receive a 16.5% discount.

If you do not currently have an account with The Dental Directory, simply call Sally Slater on 01376 391206.

The Dental Directory

THE DENTAL DIRECTORY | DELIVERING THE FUTURE OF DENTISTRY

Savings on magazine subscriptions & seminars

All AOG members are entitled to a 20% discount off all new subscriptions to FMC titles (except CPD in Practice). The titles included are Private Dentistry, Endodontic Practice and Aesthetic & Implant Dentistry. These offers are not able to be used in-conjunction with other offers.

Additionally, a 10% discount is now available on all Independent Seminars to every AOG member.

Please state your membership number when booking, as you need to claim the discount at point of order. rather than afterwards. No discount can be given retrospectively.

FMC

independent seminars

Have you seen our website lately?

If you haven't, why not visit our new and improved website? Keep up to date on membership details, news and events, latest articles and much more. Simply click on to:

www.aoguk.org