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I attended a graduation ceremony recently in which the Dean of Medicine led medical school graduates in stating the duties of a doctor, with the following being among the statements made: 'Make the care of patients our first concern', and 'Promote and protect the health of patients and the public'.

Articles in this issue reflect these statements and, although it is unusual that we publish two articles on the same topic in the same issue, the two on smoking are complementary.

Readers will be aware that all articles published in *Dental Update* are peer reviewed, other than the Comment or Guest Comment features in which the author(s) present an opinion and, although this is generally based on 'evidence', the Comment may also be based on experience. The Guest Comment in Martin Kelleher's inimitable style centres on the theme of 'do no harm'. There is much there, indeed, to make us all think before we embark on any course of treatment.

FJTrevor Burke

Martin G D Kelleher

The 'Daughter Test' in Aesthetic ('Esthetic') or Cosmetic Dentistry

There has been a re-explosion in the interest in aesthetic dentistry in the last 20 years. History teaches us that the interest in aesthetic dentistry tends to coincide with periods of relative affluence in society. Populist, if somewhat mindless, programmes like 'Extreme Makeover' and 'Ten Years Younger' have drawn the attention of the public to what aesthetic dentistry can offer. It is clear that many of these programmes concern themselves with producing a rapid change in people's appearance. However, in this haste for a visual change, those concerned appear to pay little attention to the longer-term consequences of the procedures that are undertaken in order to achieve these seemingly beautiful short-term results. Follow-up examinations at 10 or 20 years would probably show a very different appearance, both clinically and radiographically.

The author has coined the term 'hyperenamelosis' to describe an imaginary dental condition in which patients are born with too much enamel or an imagined condition in which the enamel prisms grow following tooth eruption and, if left alone and not cut back by a dental bur, would somehow grow out of control. Some dentists seem to imagine enamel prisms like rye grass which, if not cut back, would be somehow likely to result in a poor aesthetic appearance which could best be improved by replacing the enamel with porcelain. This is farcical. Teeth do not suffer from 'hyperenamelosis' and teeth do not suffer from a 'porcelain deficiency disease'. 'Porcelain deficiency disease' is an imaginary disease that apparently can only be cured by the removal of sound enamel and dentine and replacing it with porcelain. Most sensible dentists are aware that neither 'hyperenamelosis' nor 'porcelain deficiency disease' actually exist. Sadly, some superficial, self absorbed, unwitting or easily influenced dentists are seduced by short-term profits and patients' short-term gratitude for providing a pleasing appearance by undertaking destructive procedures to replace sound enamel and other hard dental tissues with porcelain veneers or porcelain veneered on to various frameworks and copings. In tackling these individuals in public, or in private, as to why they destroy sound tooth tissue to undertake these aesthetic restorations, it is sad to note that many such dentists tacitly agree that this type of destructive treatment is not what they would do for their own daughter. The justification offered is that 'they do it because the patients ask them

All articles published in Dental Update are subject to review by specialist referees in the appropriate dental disciplines.

to do it'. In other words, they are merely serving a market. The fact that these sorts of patients request an improvement in their appearance is, in these dentists' somewhat simplistic views, a sufficient justification for treating patients in this destructive way in order to 'give them what they want'.

The Daughter Test

Given that competing aesthetic philosophies and various bits of dental technologies exist and, indeed, often have enthusiastic proponents, a simple test is proposed to help clinical decision-making in this difficult and complex area. This is called The 'Daughter Test' in Elective Aesthetic Dentistry. At its simplest, it asks the question 'Knowing what I know about what this procedure would involve to the teeth in the long term, would I carry out this procedure on my own daughter?' It is curious that the daughters of dentists never seem to suffer from a 'porcelain deficiency disease' or 'hyperenamelosis'.

Dental manufacturers

Dental material manufacturers have not been slow to recognize this interest and the potential profits that are available from producing products for this 'aesthetic' market. For instance, 'All Ceramic' and variations such as Yttrium Zirconia and 'All Ceramic Zirconia-based' crowns are promoted in the popular dental press as being better looking options to porcelain fused-to-metal crowns. Other systems involve pressed ceramic and porcelain applied to various copings. Many of these materials are promoted with breathless enthusiasm and superficiality. Crass marketing straplines such as 'beautiful as nature itself' or 'it can barely be distinguished from the natural tooth' are frequently used in these advertisements. There may be some increased translucency with these materials which is a desirable visual benefit from their use. Nobody doubts that the intention of these manufacturers is to help solve the perceived clinical problems of patients and dentists. However, they do not draw attention to the amount of residual sound hard tooth tissue that has to be destroyed in order to use these seductively attractive products.

Changing demands and pressures

Dentists, under pressure from patients to provide better aesthetic results, and perhaps reassured with the results of small, short-term trials, may succumb to the temptation to grind away lots of sound, hard dental tissue in the somewhat naïve belief that a tooth can survive this sort of brutal air rotor assault and still continue to function satisfactorily in the longer term. This is bizarre. There is evidence available in the published dental literature to show that up to 18% of teeth that are prepared for full coverage restorations are dead at five years.[1,2]

Porcelain is a brittle material. The word is derived from an Italian word 'porcellana' which means 'sea shell'. Most dentists will have childhood memories of sea shells breaking under their feet on a beach, so it is difficult to see why they should be so enthusiastic about a material that is fundamentally so brittle. The original porcelain jacket crowns broke because of inherent cracks, porosities, multiple flaws and problems with grain boundaries. The contribution of the development of porcelain fused-to-metal was to help stop the propagation of these cracks and to support the porcelain, provided it was placed in adequate, correctly supported, bulk. Sadly, most of the apparent developments that have occurred with 'All Ceramic' systems still require vast amounts of sound hard tooth tissue to be removed in order to comply with the manufacturer's instructions, which are usually based on laboratory tests. Laboratory tests are often a very poor predictor of long-term *clinical* performance of the *tooth* with the restoration on it or in it. Common sense would suggest that, if a tooth evolved to be a particular size in order to carry out its normal functions, then it is reasonable to assume that it needs to continue to be generally that size in order to transmit normal functional loads. It certainly does not seem sensible to most experienced clinical dentists that a tooth could be over engineered to such a degree that it could be reduced by up to 60% of its normal structure or surface area and still survive the functional loads that will continue to be placed upon it in the longer term.

Biological concerns about the preparations required for these restorations are considerable. The preparation involved for full coverage, all

Figure 1. Eight Procera crowns at 2 years. Four teeth required root fillings. Multiple chips off the crowns can be noted.

Figure 2. Failed porcelain veneer UL1. UL1 and UL3 are now dead. Previously the teeth were intact.

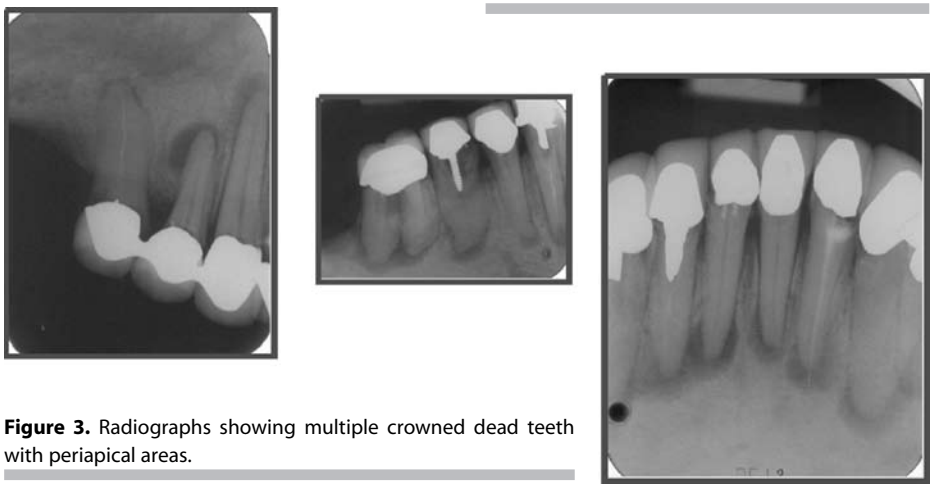

Figure 3. Radiographs showing multiple crowned dead teeth with periapical areas.

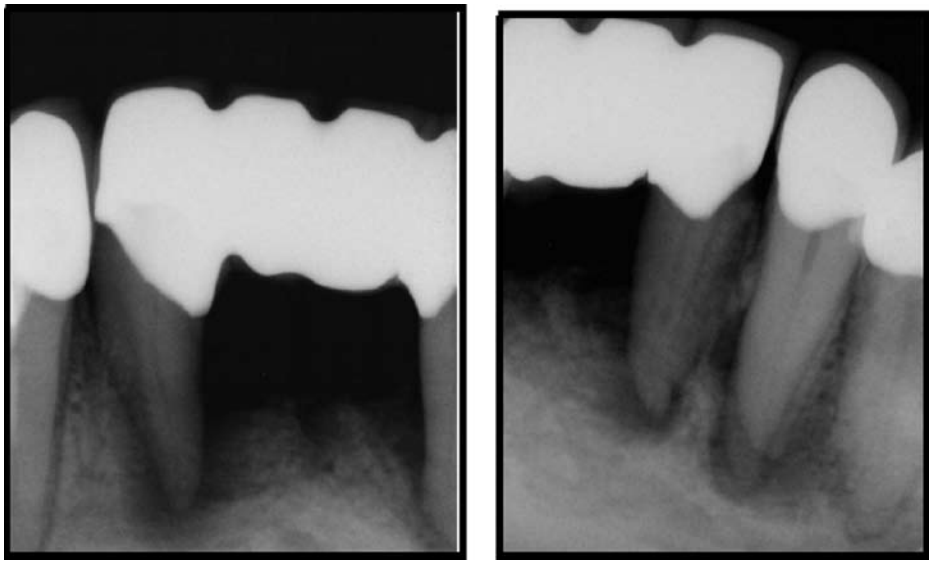

Figure 4. Bridges and crowns placed for 'cosmetic' reasons one year previously. Note periapical rarefaction. The alveolar bone loss due to periodontal disease must have been present when bridges were undertaken.

Figure 5. 'The Enamelator' air rotors should not be used as convenient tools to destroy sound tooth tissue.

Figure 6. Two porcelain veneers which resulted in death of the underlying teeth.

ceramic restorations is fundamentally very different from that involved in dealing with the consequence of dental caries. Caries is usually a slow process and often allows the pulp adequate time to recede. Curiously, many dentists seem not to recognize that one of the pulp's mechanisms for doing this is to encourage the spread of bacteria around the amelodentinal junction while the pulp retreats and lays down secondary or reparative dentine. In other words, the invading bacteria producing the caries are often held at a distance from the pulp by the decussation of the odontoblastic fibres at the amelodentinal junction. This is probably part of an evolutionary protective mechanism by which the tooth protects itself, whereby the tooth under attack has a chance to gain time in order to protect the pulp by producing further reparative dentine. Teeth have probably evolved over millions of years to protect themselves from the acid-producing bacteria in this way. Contrast that, if you will, with the fact that the air rotor has only been around for about 60 years. The first time a tooth realizes it is in trouble is when it hears the whine of an air rotor and within minutes all the enamel and some, or much, of the dentine has been removed in order to gain adequate space for the aesthetic porcelain-based restoration. In this scenario, the pulp is given no time to protect itself from this often unnecessary and unprovoked assault. This surgical attack is frequently carried out on completely intact teeth which have made no other mistake than to be slightly in the wrong position for them to be considered to be completely satisfactory components of the 'perfect smile'.

The supposed ideal material (porcelain) is brittle and therefore more hard, sound dental tissue needs to be removed from the interproximal area and the palatal area than is required even for porcelain fused-to-metal crowns. Given that the dental pulps have had no chance to lay down secondary dentine, the problem is made worse by the fact that some dentists may not temporize these newly prepared and previously unattacked teeth adequately or quickly enough in order to stop microleakage. In other words, during the fortnight or so while the 'definitive' or supposedly 'permanent' crowns are being made in the laboratory, often poorly fitting, leaking, temporary veneers or crowns are placed. Leaving aside the question of the poor aesthetics of many of these materials, the overriding short-term desire of some dentists appears to be able to get the temporary veneer or crown off easily in order to cement the supposed 'permanent' veneer or crown quickly. It is during this fortnight or so that most of the pulpal damage happens as the wounded pulp is unable to protect itself from the ingress of multiple bacteria from the oral environment. It does not require any real imagination to realize that, having been stripped of its protective enamel and dentine and surrounded by multiple invading bacteria from the oral environment, a pulp's chances of survival are much reduced. This is especially relevant as extensive preparations bring the bacteria close to pulp horns and also allow access to the pulp near the cervical margins. There is often little sound tissue remaining between the bacteria and the pulp at the necks of the teeth, or indeed, near the pulp horns. Consequently, the teeth may die sooner or later and require root filling (Figures 1–8).

Dentists may seek to pass the blame for this pulpal death on to the patient, suggesting that *their* pulp has been in some way responsible for this problem and that the patient should therefore pay for the root filling. In other words, blame is transferred to the patient along with the consequent costs. One might be more sanguine about this outcome of 'dentistogenic' pulpal death if there was strong evidence that dentists were excellent at performing root canal therapy through existing crowns or bridge retainers. Sadly, all the evidence is to the contrary, with many root fillings in the UK failing to achieve a European Society of Endodontology guideline outcome.[3]

Even if the endodontic therapy can be successfully undertaken, and there are many skilled dentists and endodontists with elaborate pieces of dental equipment and magnification to help them, successful endodontics at that stage does nothing to return the lost *structure* of the tooth. Even

Figure 7. Veneers placed unnecessarily in a 19-year-old with orthodontic relapse and shortened roots.

Figure 8. Root-filled, resorbed, veneered teeth with an appalling long-term prognosis as a result of inappropriate veneers.

if one ignores the pulpal consequences of this rapid destruction, the reduction in the rigidity of the residual core of the tooth is often catastrophic. It is often just a matter of time until the tooth, having been reduced to a fraction of its former structural strength, fails because of mechanical rather than infective reasons. Following that, the cores may break off later, sometimes with the crowns still present. Posts placed into such weakened teeth can produce root fracture in the longer term. The presence of periapical infection around post crowned teeth is a frequent finding.[1]

Changes in demand and in society

As in society generally, there are cultural and fashion changes in dentistry. In some areas of current cosmetic dentistry culture, it appears that a combination of a desire to give the patient what they want, breathless superficiality in thinking and almost a wilful disregard for the long-term health of the tooth, is prevalent. This combination causes most of the problems. The breathtaking, cavalier destruction of teeth by some 'cosmetic dentists' is often shrugged off by them as being relatively unimportant because the tooth 'can always be replaced by an implant'.

Into this dentist-induced catastrophic arena canters the optimistic implantologist who now looks at the distressed residual tooth as merely occupying a potential implant site (Figure 4). The emphasis for the 'interested implantologist' then changes to how much of the soft tissue and bone can be maintained for the supposed 'perfect implant' to replace the iatrogenically damaged tooth or teeth.

'Remunerectomies' are common in many branches of surgery. This is a term that has been coined to describe an operation whose necessity is largely based on the financial remuneration to the operator. Examples include tonsillectomies or the removal of asymptomatic wisdom teeth, often in privately insured patients.

It is probably worthwhile noting that these destructive procedures carry with them greater profitability for the dentist who undertakes the increasingly damaging procedures. In other words, there is 'higher added value' (ie more profit) for the dentist who does a destructive procedure rather than one who does a preventive or constructive procedure. The addition of a composite tip or of some composite bonding following bleaching is not generally rewarded in the short term with as lucrative a fee as that associated with the placement of, for example, an all ceramic crown, or a pressed ceramic crown. This is weird. Could one imagine a remuneration system existing whereby a cardiac surgeon would get paid more for destroying *more* of the residual heart tissue rather than one who destroys *less*? In other words, if a cardiac surgeon helped themselves to more of the sound cardiac tissue that remained and left the patient with less residual sound cardiac tissue than a more conservative procedure, would it be considered reasonable by any sane person to reward that particular surgeon with a higher fee? All the evidence from cardio-thoracic surgery and, indeed, from many other areas of modern 'keyhole type' surgery, is that it is the surgeons who perform the minimally destructive procedures who are now the better rewarded. For instance, stenting of diseased coronary arteries is now the preferred procedure rather than undertaking a triple or quadruple bypass. In that context, dentistry has some way to go in order to provide a fair, sensible and appropriate remuneration system for minimally destructive dentistry which actually solves patients' perceived problems but at minimal biologic long-term cost.

There is a different school of thought. Many sensible, experienced dentists are appalled by this 'airhead approach' to solving problems in aesthetic dentistry. Generally speaking, airheads are superficial, self absorbed and markedly anti-intellectual. They are interested in the 'here and now' and in instant gratification. They are unconcerned about their future. They like soaps and celebrities. They are impressed by superficial stories and pretty airbrushed pictures. 'Dental airheads' rarely look at what has to be done to the teeth in order to achieve those cosmetic results. Unfortunately, some 'airhead dentists' may not draw patients' attention to exactly what is involved in such cavalier destruction of the remaining sound tooth tissue in order to place such apparently pretty restorations.

The enamelator in the hands of the enamel-hater

The sensible alternative options

Most sensible dentists are aware that a significant improvement in the colour of the teeth can be achieved with conventional nightguard vital bleaching,[4,5] and how dead teeth can be

Figure 9. Dead, discoloured, subluxed UL1.

Figure 10. UL1 root-filled and bleached with inside outside technique prior to shortening it. The UR1 had a new composite tip added.

improved with inside/outside bleaching. Bleaching has been around for many years and can produce spectacular but safe long-term results.[6] These results can be further enhanced with minimally destructive techniques either by minor adjustments to the teeth or by bonding some direct composite or, in some cases, small amounts of porcelain on to the remaining sound tooth tissue.

The first part of the Hippocratic Oath states clearly 'firstly do no harm'. No sane dentist really thinks that electively drilling a sound tooth down to a stump is not doing harm. Since when has it been regarded as acceptable for dentists to destroy sound healthy tooth tissue? Which reputable dental school teaches that in their curriculum? Where and when did that idea start? Air rotors were designed to remove unhealthy tissue in order to gain access to the results of the disease process of caries. Air rotors were not designed as weapons of mass destruction of sound healthy tooth tissues (Figure 5).

It is doubtful that any sensible, rational patient would readily agree to having full, or nearly full, coverage preparations carried out electively on their teeth for a small amount of irregularity if they really and completely understood the consequences to their teeth of these elective procedures in the long term.[12] They are often not adequately informed that the restorations that are about to be placed in return for their precious enamel and dentine frequently have a poor record in long-term clinical trials, assuming that these are ever adequately reported. Sadly, there are very few supportive good, sensible, long-term clinical trial results available to provide proper, unbiased clinical evidence of outcomes for the teeth when these elective destructive procedures are undertaken for cosmetic purposes.

Unsubstantiated claims by manufacturers

It may be pertinent to point out that many of the manufacturers who were previously so enthusiastic about their product or machines now have a number behind their new materials such as 'Empress 2' or 'Cerec 3'. To an experienced, but sceptical, dentist this implies that the technology, when put on the market, was merely work in progress and likely to be rendered redundant by 'improvements' in the technology. This may be couched in marketing terms as 'new and better'. It is worthwhile pointing out to these manufacturers, or their salesperson, that things cannot be 'new and better'. This is a paradoxical statement or oxymoron. It is either 'new', in which case there was nothing like it before, or it is 'better', in which case there was something like it before but it is an improvement on that which was available previously. Dental materials cannot be 'new and better'. It is doubtful if patients would agree to have 'new and better materials' used on them if they understood that there was a significant chance that the 'new and better product', and the necessary destructive procedure to use it, would prove to have, or cause, significant long-term problems and would be much less good in the long term than the proven biomaterials of enamel and dentine. After all, enamel and dentine have been around for millions of years and, if cleaned effectively, kept relatively free of sugar, acids or cigarette smoke but otherwise left alone, do pretty well in the vast majority of cases.

Porcelain veneers

A brilliant review of the 25-year status of porcelain veneers by Mark Friedman[7] included the statement 'It is unfortunate that some members of our profession misrepresent porcelain veneer restoration as if they were completely innocuous to the dentition. Many dentists are extremely concerned about the seemingly mindless disregard for sound tooth substance involved in destructive veneer cases.'

Veneer cases are published with increasing regularity in the 'popular dental press'. Many of these journals are unrefereed, funded by advertisers and are used as 'advertorial'. In other words, they are posing as scientific articles but actually they are scarcely concealed advertisements for various dentists, different laboratories or dental products. Many of these advertisements, curiously, do not necessarily appear on the same page but are often positioned in the same issue. Glib statements about porcelain veneers may be made, including claims such as 'veneers are one of the most conservative treatment modalities available'. Many of the preparations that have been noted in these articles must have involved dentine, with potentially disastrous affects on the longevity of the tooth or the restoration. The results of Dumfahrt and Schaffer show very clearly that the failure rate increases ($p < 0.1\%$) when the finishing line of porcelain veneers crossed existing restorations. There was a tendency for failure when parts of the preparation surface were in dentine (Figure 2).[8]

Alternative treatment to porcelain and other direct veneers: bleaching and bonding

Bleaching has been proven to improve the colour of teeth. This is well established in multiple randomized, double blind controlled clinical trials.[4,5] This improvement is achieved with a minimal biological cost and is known to last for many years. The improvement in colour can be 'topped up' or retouched by the use of 10% carbamide peroxide. If the colour change does need to be retouched it needs *one night* of renewed bleaching per original *week* of the dental bleaching required for nightguard vital bleaching.

Bonding with direct composite is biologically smart and produces more than acceptable results in the majority of cases. Many wear cases can be dealt with very effectively by this technique. It has been shown by Poyser and colleagues[9] that it is possible to restore many worn teeth using adhesion to retain composite restorations. These workers found that 'direct composite restorations have distinct biologic advantages compared with crowns, and for the majority of patients they perform well, offer a

Figure 11. Tooth surface loss of upper anterior teeth.

Figure 12. Imbricated and eroded lower teeth.

Figure 13. Teeth being lengthened by addition of direct composite at an increased anterior vertical dimension. The UR2 and UR1 still to be lengthened. Note quarter enamel prep to hide the join between enamel and composite.

Figure 14. Composite incisal tips have been added to the upper incisors but have not damaged the underlying residual tooth structure. Appearance restored without long term biological cost.

high degree of patient satisfaction and require only an acceptable level of maintenance. Patient accommodation to the technique is good. No detrimental effect on temporomandibular joint, periodontal or pulpal health was noted in any patient. Bulk fracture and failure were uncommon.' Other research has indicated similar results (Figures 9–14).

The fallback position and the reparative cycle

No restoration lasts a lifetime and it is probably wise to avoid the use of the word 'permanent' for any restoration or any tooth. Permanent is an absolute term like sterility or virginity. Things can't be 'a little bit sterile' and restorations can't be a 'little bit permanent'. Lawyers, in particular, understand what the word permanent means. Patients are often told by dentists that they are having a 'permanent restoration'. If that word 'permanent' is used, patients may insist on the letter of the law, ie that is what they have been promised, that is what they expect, and anything that falls short of that outcome is clearly deficient in 'permanency'. Most restorations fail and, when they do, the fallback position is something that needs to be carefully considered. The fallback position with many modern all ceramic crowns is poor. The structural and pulpal havoc that the preparations wreak on the underlying teeth is often all too apparent, especially to any dentist who stays in the same practice for more than 15 years. Indeed, any dentist who stays in the same practice for more than 15 years probably gets pretty impressed with his/her own incompetence. Common sense and clinical experience prove that the fallback position is better with restorations that don't involve excessive cutting down of residual sound tooth tissue, especially when the clinical problem has been caused by a *lack* of tooth tissue, eg erosive tooth surface loss. In other words, if an adhesively retained restoration falls off and very little destruction has been done in order to place it, for example, a composite restoration, the fallback position is more or less what the patient had before they had the composite restoration bonded to the tooth (Figures 13, 14). The situation with an all ceramic, full coverage restoration is entirely different. The contrast between the two fallback positions needs to be kept uppermost in one's mind when planning any elective restoration. Would any caring dentist want to look their own daughter in the eye when an all ceramic restoration fails and have to apologize to her that it was done because it was a new material that the manufacturer or salesman had suggested was a great material and 'it seemed a good idea at the time?'.

Many dentists have seen and have been concerned, if not appalled, about this outmoded and cavalier approach to sound tooth destruction published increasingly in articles in the United States and latterly in the United Kingdom. Many apparently sound teeth seem to be grossly and unfairly sacrificed simply because they are part of a set of teeth. Innocent bystanding teeth that have produced no greater problem than that they weren't in a wide enough arc to produce 'an ideal buccal corridor' are quickly and brutally reduced to dental dust in order to create 'ideal preparations' for these all ceramic, usually lavatorial white, restorations. This is cosmetic madness and the long-term risk to reward ratio has got to be crazy. It is doubtful if enquiring patients are presented with the balanced information necessary for them to make a sensible decision. Such professional advice should include the very real potential for pulp death and structural or bonding problems following heavy veneer or modified crown preparations. Such potential outcomes must be considered even with moderate veneer preparations, let alone more destructive heavy preparations. It would seem astonishing if any sane, rational patient would then decide to proceed with such aggressive treatment for what is often a minor irregularity problem such as mild overcrowding. The biological costs of aggressive treatment in terms of both hard and soft tissue destruction should be an equally emphasized part of the informed consent process. It is very sad, and professionally a real long-term concern, that the concept of minimally destructive dentistry for mild and moderate cases, which was developed largely in the UK and Australasia and which has become well established in the UK and Europe, seems not to have penetrated to many parts of the United States or parts of UK and Europe.[10]

Dental 'gurus'

Dental 'gurus' proposing radical destruction of teeth for cosmetic reasons can now be observed at high profile conferences. Many of these dental 'gurus' are persuasive showman and are aided in the promulgation of their aesthetic or cosmetic message

by a variety of gimmicks. The technical proficiency of some of these treatments is not in doubt. What is in considerable doubt is the wisdom and appropriateness of doing this sort of treatment to an intact or nearly intact tooth. What is also in doubt is whether they themselves would do that sort of destructive procedure to their own daughter. Excellent clinical and technical laboratory skills can produce a very flattering short-term picture. Sadly, the wrong treatment carried out beautifully is still the wrong treatment. Deliberately failing to show what is left of the prepared teeth is a common feature of these presentations. The structural damage done to these teeth, coupled with the associated biological long-term costs for questionable aesthetic gain is worrying for the dental profession generally. We are healthcare professionals concerned with long-term dental health gain. We are not, and should not be short-term opportunistic and temporary beauticians who prey on the vanities and insecurities of vulnerable patients.[10] One is reminded of the statement by Peter Drucker, a well known American management consultant, that "Americans prefer the word 'Guru' because they can't spell the word 'Charlatan'".

The recent fall from grace of bankers in the USA, UK and Europe should serve as a stark warning of how quickly a profession can lose the respect of society when the trust is broken. There is a real and present danger that this could befall the dental profession at large because of the behaviour of a substantial minority. Richard Simonsen, one of those who introduced the porcelain veneer technique to the dental profession, recently stated, "Where is the professional and public outrage at the troubling trends in the marketing and selling of cosmetic dentistry that besiege our profession today?".[11] The dental profession needs a wake-up call and needs to be focused on the real and present dangers of these destructive approaches to teeth. Dentistry is a trust business. When patients find out that their trust has been broken by their dentist in undertaking this elective destruction, the resulting anger often leads to ligation and unhappiness which is felt not just by the patient, but by the treating, and other subsequent, dentists. Patients often do request to have teeth 'veneered', 'capped' or 'crowned' but they are often not in possession of the full facts when they do so. It is their dentist's ethical duty to help them gain the correct information in order to make a proper and balanced call.

Litigation

There are well known risk factors for veneers in aesthetic treatments. These are technically complex treatments that carry increased risks. Veneers are mainly placed in patients who can afford them and know how to sue if it goes wrong. There has been a huge increase in settlements in cases involving aesthetic treatment when this has not led to patient satisfaction (Kevin Lewis, Dental Director, Dental Protection, London. Personal communication 2009). Extreme care should be taken in getting to know and understand patients as to why they want the treatment and, importantly, why now? It is vitally important that they understand clearly, and in an unambiguous way, the long-term consequences of their desire for an improvement in dental appearance. A finding at the beginning of treatment is called a diagnosis and a finding at the end of treatment is called an excuse. That is how patients interpret things. If patients are not told in advance, and in writing, of the possible deleterious consequences to their teeth of these destructive procedures, it is difficult, if not impossible, to defend the actions of the treating dentists. Many of these cases have to be settled, mainly because the notes do not reflect a sufficiently balanced level of information and understanding by the patient of what was actually going to be involved. In the litigation process, patients often claim to their lawyers and via their lawyers that not only are they desperately unhappy about the consequent appearance, but that they would never have given their consent to the procedure in the first place if only they had understood exactly the real amount of dental destruction was involved in the process.[12]

Variations of the 'Daughter Test'

Variations of the 'Daughter Test' of 'Knowing what I know about what is involved with this proposed dentistry would I carry out this treatment on my own daughter's teeth?' include 'Would I have this treatment carried on my own teeth?' 'Would I have it carried out on my other children's teeth, or my partner's teeth?' A negative response should prompt radical re-thinking of the proposed treatment plan. It will almost certainly initiate a change of plan involving a more sensible and less destructive approach with which the dentist and his/her family are more comfortable because it addresses the health of the teeth and the patient in the much longer term, as well as improving the dental appearance and maintaining a sensible amount of tooth tissue and a decent long-term fallback position.

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