Treatment planning comprehensive dentistry

Correcting underlying functional problems is essential for impressive results when performing cosmetic procedures, says Dr Buckle. Listen to Dr Buckle talk on this in more detail at Clinical Innovations Conference on the 16th May 2009'. As well as various seminars with One Consulting and the Dawson Academy.

Many patients who present seeking cosmetic dentistry have underlying functional, structural and biologic problems. If either the aesthetic desires or functional needs are not met, the sequelae can be extremely traumatic for all concerned. Typically these patients have been drilled and filled over the years and often exhibit signs of tooth surface loss (attrition, erosion, abrasion, for example). A more comprehensive approach is required than the single-tooth dentistry which is customary, but where do we start? Here we consider the steps required by reference to two patients.

Where do I begin?

Our first goal is to understand our patient’s wishes. Richard wanted a nice smile. He is a successful business man and was very concerned that he had never had a nice smile and if that was possible she would be very happy.

What Am I trying to achieve?

Accessing the patient’s wishes provides invaluable information in helping us determine what we are trying to achieve. Most importantly we need to have a vision of the desired result – what does a healthy, stable, attractive mouth look like?

Combining the patient’s desires with these goals will produce beautiful, long-lasting, comfortable, predictable results.

Start at the beginning

Whatever the presenting condition or our patient’s desires, it is essential that we have a records process in place that will allow us to carry out a comprehensive examination so that we may use that information to determine what problems the patient has and how we may help them. Digital photographs are not only an essential record but also an excellent aid in codiagnosis, helping the patient see and understand the problems that they may have.

It is important to be consistent in the photographs that are taken and in the camera settings that are utilised. Additional shots may also be taken to help illustrate specific points.

An earlobe is taken so that the models can be mounted onto an articulator. This relates the upper cast to the condyle, records the occlusal/incisal plane and provides the correct arc of closure for the lower cast.

Impressions are taken being careful to record all the teeth and sufficient tissue detail. Alginate is still an excellent material to use but I find polyvinyl siloxane (PVS) materials in a quick two stage putty wash technique that I then help to record all necessary information with the added advantages of stability and the potential to recast.

Biologic assessment

The periodontal condition is recorded and an oral cancer check is performed. The teeth are examined for signs of decay and failing restorations. Any necessary radiographs are taken.

Case planning and delivery

Once the records have been gathered, we can now analyse the information and develop a treatment plan.

Visualisation

The first step in this process is to develop a mental image of our optimum result. It is important to focus on the possibilities and not to be constrained by the restrictions that are often placed upon us.

Model work

Careful analysis and diagnostic waxing of the mounted casts will produce the 3D image of the mental picture we developed above.

Temporisation

All lining strips and matrices from the diagnostic wax up will allow proper, but minimal preparation and also allow chairside fabrication of temporary restorations that will require minimal alteration.

Final restorations

Once the temporary restorations have been perfected for function and aesthetics, the technician can copy this information to produce predictable, stress-free results.

Richard’s case

The examination revealed that, in centric relation, his initial contact was on the upper left first molar and lower left molar – the teeth which had been accessed for root canal therapy but wouldn’t settle. He had mild periodontal disease, several fractured teeth and numerous failing restorations. Preliminary treatment involved initial therapy with the hygienist and the three teeth were investigated, and temporised. A split was provided and root canal treatment was performed on the upper and lower first molars.

These teeth then settled inadvertently. Richard had signs of instability...
ity and to fulfil both his aesthetic desires and dental needs we would need to provide numerous restorations. Therefore, it was decided to work in centric relation. Optimum treatment was visualised according to desired goals and then a diagnostic wax up was created.

Preparation was carried out according to structural requirements and in line with matrices derived from the diagnostic wax up. Provisional restorations were placed again using matrices derived from the diagnostic wax up. The provisionals were then adjusted to ensure that all functional and aesthetic goals had been met. Photographs, impressions, bite records and earbow were taken. The technician was then able to copy all parameters and add his artistry to create the final result.

How do I achieve success?

A definition of success is: ‘The achievement of something desired, planned, or attempted’. By having definite goals at planning, preparation, provisionalisation and placement success is much more predictable. Ultimately having patients who are comfortable, functioning well and extremely pleased with their result will be our defining test. I am often asked what is the most important piece of equipment to buy. In my view the answer is simple – invest in YOURSELF! Without knowledge no piece of equipment can save us. Commit to being a lifelong student and enroll on a comprehensive education programme such as that provided by the Dawson Academy. Knowledge is power!

Acknowledgements & disclosures

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The fee per delegate is £345 and qualifies for 6.5 hours CPD.

Dr Ian Buckle

Dr. Buckle qualified from Liverpool University in 1985. He has over 20 years experience in general practice both in the private sector and with the National Health Service. The first International Faculty Member of the Dawson Academy, he has completed every level at the Dawson Center for Advanced Dental Education in St Petersburg, Florida. He has worked as a teaching assistant with Dr John Cranham in Virginia, USA and in the UK. He has achieved Masters level in aesthetic dentistry with the Rosen-thal Institute based at New York University and now works with the Institute as a senior clinical instructor in London, New York and Palm Beach.

He is a published author, sought after speaker and has appeared on radio on numerous occasions. Dr Buckle now runs a private practice with his partner Dr Liam McGrath concentrating on comprehensive aesthetic and implant dentistry.

He will be talking at the Clinical Innovations Conference on the 16th May 2009 at the Royal College of Physicians, Regents Park, London. Call 020 7400 8989 for more information and to book your place. Or go to www.clinicalinnovations.co.uk.