

A case in point

Kenneth Harris, a clinical instructor for the UK based Aesthetic Advantage, illustrates with one of his patients how his education in New York and a strong relationship with a great laboratory have benefited his career, and his patients

The cosmetic dentistry revolution has definitely crossed the pond, and UK smiles, so long the butt of jokes across in the USA have finally come of age. There is no doubt we have a long way to go yet to rival the activity in the USA, but the wheels are already turning, and the demand for cosmetic dentistry in the UK has really taken off in the last few years. However, there still remains much controversy among sections of the UK dental profession as to whether cosmetic treatment is actually necessary at all. The image of maverick dentists attacking what are considered to be perfectly good teeth is still widespread among sections of the profession in the UK, and images of full-mouth reconstruction carried out in the States on smiles that are deemed by many to have only minor imperfections adds fuel to the fire.

In actual fact, nothing could be further from the truth. The overwhelming majority of patients who seek cosmetic dentistry in the UK are, by anyone's standards, in great need of help. A large section of the UK population have historically had piece-meal or patch-up dentistry carried out by many different practitioners over the years, leaving them with a mutilated dentition and destroyed occlusion. The patients may approach us primarily for cosmetic needs, but at the same time a golden opportunity exists to restore lost occlusal function simultaneously.

The patient

This lady attended our practice (see opposite) literally begging for a new smile, and who can blame her! She finally consulted with us because her daughter was due to be married later in the year and she wanted to look like the mother of the bride, not the grandmother! The original crown had been fitted 32 years previous; a succession of dentists since had resisted her requests for improvement and told her that as there was no decay so she shouldn't worry. She had seen *Extreme Makeover* on television and decided enough was enough.

The examination

She was indeed free of decay and her gingival health was excellent. TMJ examination revealed nothing of note

despite lost cuspid guidance and a misaligned bite. All the amalgam restorations were many years old, yet still intact. She was missing both upper lateral incisors, and although the spaces remained, there had been drifting, and the spaces were consequently not adequate to allow implants, and she totally rejected orthodontics. Discolouration, spacing, missing teeth, variable gingival heights, dubious occlusal pattern, an unsightly old crown - the list of problems (both cosmetic and functional) went on and on.

Treatment planning

We decided to use a combination of porcelain veneers, crowns and bridges to improve her appearance, and to restore her occlusion at the same time. She reported no history of TMJ dysfunction, but bi-manual manipulation revealed the usual discrepancy between ICP and RCP. The first point of contact was right bicuspid region. Her bite was de-programmed using a Lucia Jig, to allow us to record her occlusion in RCP as a starting point for analysis. Face bow records (Denar) and upper and lower silicone impressions were taken along with a full range of digital photographs, and all was sent via UPS overnight freight to Frontier Dental Lab for analysis.

Laboratory discussion

Following discussion with Brent West at Frontier we decided to open the bite 2mm anteriorly by raising the pin on the articulator, which would allow us to achieve our goals both aesthetically and functionally. As is common within the UK currently, we had permission to work only on the upper arch, so a full upper arch wax-up was specified, to golden proportion, and the spaces were also closed. The proposal was to use pressed porcelain (Empress, Ivoclar Vivadent +44(0)116 2847880) and to utilise authentic porcelain pressed to metal for the bridges with labial metal cut back from the sub frame to allow stump shade show-through.

Review and consent

Upon the return of the wax-up, the patient attended to



Before

view the wax-up and ask final questions. Paperwork and the correct consent forms were signed and the preparation appointment agreed.

Clinical procedure

The entire upper arch was prepared at one sitting using stents of the wax-up as a template for tooth reduction as variously described by Galip Gurel among others. Specifically, aggressive preparation was required on mesial and distal margins of the teeth either side of the spaces in order to create the required space for the bridge pontics. The gingival tissue heights were adjusted with a diode laser with reference to the tissue reduction guide kindly provided by Frontier Lab, thus allowing all margins to be just supra gingival, and allowing accurate silicone impressions to be taken without need of retraction. The laser was also used to create ovate pontic sites for the bridge abutments sited upper left lateral incisor and upper right cuspid areas. RCP bite registration and separate stick bite registration was recorded along with stump shades, and lots more photographs were taken. Provisionals were fabricated with a stent from the wax-up (Luxatemp, Minerva Dental +44(0)2920 490504) and fitted using the spot-etch

After

technique. The margins were carefully finished with rotary carbide instruments and finely polished to allow gingival health during the porcelain construction phase.

Provisionals assessed

The day after preparation, the patient returned for a detailed review of the provisionals, without the numb lip! Occlusion, speech, and importantly, aesthetics were checked and refined. Three days later the patient was reviewed again, and final adjustments made, before the provisionals were accepted. The provisionals are important because a silicone impression and incisal matrix were then taken of them and are used by the laboratory to fabricate the definitive restorations.

Seat appointment

The provisionals were carefully removed and the preps were thoroughly cleaned with Hibiscrub (chlorhexidine gluconate). Rubber dam was placed, and the entire upper arch was seated simultaneously closely following the rapid cementation protocol taught by the Rosenthal Aesthetic Advantage Group using Optibond FL (Kerr Hawe



Before



After

+44(0)1733 892292) adhesive system and Variolink resin cement (Ivoclar Vivadent +44(0)116 2847880). Basic occlusal adjustment was carried out, and the patient was sent away to return the next day for the final occlusal check and aesthetic refinement of her smile. The importance of this appointment cannot be overemphasised, as it gives both patient and operator a chance to deal with any minor problems at a more relaxed pace following the frenetic atmosphere of the fit appointment a day earlier.

Summary

The patient was delighted with the result, and the wedding photos have been paraded triumphantly throughout the practice. All her friends have noticed a huge difference, and her confidence has never been higher. She says she feels years younger and she just can't stop smiling. Changing her smile really has changed her life!

Thanks

The classical text-book veneer cases with minimal preparation requirements are still rare in the north of England. The population here is not yet as cosmetically aware as in the USA, and consequently it is mainly the extreme cases such as described here that seek help. Difficult cases appear to be the norm in the UK, and this is precisely why we need the services of a highly experienced dental laboratory, otherwise, calamity could ensue.

Furthermore, as dentists here in the UK, we need to be ready to deal with these cases as the public becomes more demanding, and train ourselves to the required standards in order to deliver. Becoming involved with Larry Rosenthal and the Aesthetic Advantage hands-on continuum has been a great starting point for me, and I

regularly recommend this approach to colleagues in my region wishing to embark upon the cosmetic journey. Of equal importance is a partnership with an experienced dental laboratory, which can be a godsend in the early days. I have been working with Frontier Dental Laboratory for almost four years now and have nothing but praise for Brent West and his team. Both Larry's training and Frontier's sagely advice have been fundamental in my own professional development, and I repeat my thanks to both once again. [PD](#)

Comments to pd@fmc.co.uk

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For information about how you can be involved in the Aesthetic Advantage Programme, or for technical assistance, call Frontier Dental Laboratories' office in the UK on 0845 230 8801. Alternatively, call Independent Seminars on 0800 371652 or visit www.independentseminars.com. This year's event will be held over two long weekends, 14-16 July and 21-23 July, at the Royal College of Physicians, London.

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