## 30 3 April 2014

# Conservative treatment gives teenager a 'cool' smile

**Dr Mide Ojo describes** a case that highlights the advantages of composite as a veneering material, in preference to laboratory-produced ceramic veneers or crowns

A local orthodontist referred a 14-year-old boy. His main complaint was that the appearance of his diminutive lateral incisors made him 'look really young' and it was affecting his confidence at school.

#### **Treatment planning**

After a thorough dental examination, all the options were discussed with the patient and his parents. The patient dismissed doing nothing because he was self-conscious about his teeth, which were more obvious when he smiled. This left the options of direct composite veneers or indirect laboratory-made ceramic veneers/crowns, with some tooth preparation.

Given the patient's age, we had to consider that his periodontal tissues might not have been fully mature. The soft tissues often continue to migrate apically until the late teens to early twenties. Therefore carrying out preparation on teeth, however minimal, is not advisable, as the restorative margins will become visible. The more conservative treatment of full direct composite veneers was chosen as the margins would be easier to manage than with ceramic restorations.

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A two-stage putty and wash impression was taken using Heraeus Kulzer Provil novo putty and Flexitime light body. The Heraeus putty and wash provide consistently high levels of detail that are essential to ensure accuracy. A full series of preoperative photographs were taken. The impressions and photographs were sent to the laboratory for the preparation of a diagnostic wax-up and putty matrices.

#### **Restorative appointment**

The wax-up and palatal putty matrix were reviewed and checked for accuracy. A quick intraoral mock-up was used to help visualise the proposed change and to confirm sign-off with the patient and parents. A preoperative record was made of the occlusion before any treatment started. The teeth were isolated using an Optragate lip and cheek retractor, a Mckesson mouth prop and a saliva ejector. The composite shades were selected at the beginning of the appointment to avoid the effects of desiccation on the tooth colour. Venus Pearl is my restoration material of choice for cosmetic anterior cases and routine restorative dentistry. It is hard wearing with excellent optical and physical properties. Its chameleon effect allows the composite to blend with natural dental tissues. It is highly sculptable and polishes extremely well with minimal effort.

A total etch technique was used with Heraeus Kulzer Ibond Total Etch (fifth generation). The enamel was etched for 20 seconds then thoroughly washed for a further 20 seconds. Heraeus Kulzer Ibond was then placed. After 10 seconds the excess was removed by gentle air-drying, before curing for 20 seconds.

The composite was built up incrementally. The palatal shelf was adapted against the putty matrix with Heraeus Kulzer Venus Pearl shade CL and fully light cured for 20 seconds. The next layer was opaque



Figure 1: The 14-year-old patient complained that his diminutive lateral incisors made him 'look really young'



Figure 2: Pre-operative close up



Figure 4: Pre-operative left side view



Figure 3: Pre-operative right side view



Figure 5: The wax-up and putty matrix were reviewed and checked for accuracy

DENTIST RECOMMENDED BRAND FOR THE TREATMENT OF GUM PROBLEMS<sup>1</sup>



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Figure 6: The teeth were isolated using an Optragate lip and cheek retractor, a Mckesson mouth prop and a saliva ejector





Figure 7 : Venus Pearl's chameleon effect allows the composite to blend with natural dental tissues





Figure 10: The patient commented: 'This is so cool...I don't look like a little kid anymore. I feel like a real teenager now.

Figure 8: Post-operative right side view

Figure 9: Post-operative left side view

#### A simple and reproducible technique for any general dentist. It is now the mainstay of my clinical practice.

medium chromatic dentine, followed by shade A1/B1 and a final CL layer. Each stage was fully light cured. The ease of use of Venus Pearl allows it to be employed both as a multilayer composite for aesthetic cases and as a single shade as required. The material has given me confidence to provide direct composite veneers that mimic nature and conserve natural dentition.

The Mylar Pull technique was used to ensure tight contacts. This uses a Mylar strip to draw unset composite through the contact area, to contour the material and adapt it well to the adjacent teeth. The occlusion was assessed against the pre-operative record.

Gross re-contouring and polishing were carried out with yellow and white grit composite burs. Finishing was completed with soft flex discs, before a final buff with the Venus Supra polishing kit. This two-step

system ensures an even polish and a glossy finish, to mimic the natural dentition. Finally, glycerine gel was placed over the completed restorations. These were then light cured for a further 30 seconds, to eliminate the oxygen inhibition layer.

#### **Review appointment**

The patient returned for a review two weeks later. The occlusion was rechecked, contacts assessed and final photographs obtained. The patient commented: 'This is so cool... I don't look like a little kid anymore. I feel like a real teenager now.'

I was happy with the final shade, shapes and imperceptible margins. I am confident that this should be the treatment of choice for most adolescent and many adult patients. With the aesthetic qualities of

Venus Pearl and its ease of use, this becomes a simple and reproducible technique for any general dentist. It is now the mainstay of my clinical practice.



Dr Olumide Ojo BDS MFDS RCS(Eng) is part of the team at Ten Dental in Clapham, London. He has a keen interest in the latest cutting edge dental techniques and regularly attends courses across the UK to advance his knowledge. He is a full member of the British Academy of Cosmetic Dentistry, the Royal College of Surgeons and the Society for the Advancement of Anaesthesia in Dentistry.

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