

# Minimally invasive, natural smile makeover delights patient

**Manrina Rhode** presents a case that successfully combines porcelain veneers and composite bonding to treat a young female with peg lateral incisors and pointed canines, achieving a functional and aesthetic transformation

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Cosmetic dentist



I often get excited when a patient presents and I can immediately see the potential outcome of treatment.

I know how much I am about to transform their smile. This case was no exception.

A 25-year-old female came to see me with concerns about the appearance of her upper anterior teeth.

The patient was unhappy with her small peg lateral incisors and the pointed shape of her canines (Figures 1 to 3).

She was interested in having the upper 4-4 restored and also wanted her teeth whitened. The patient had recently started a new job. She worked in a big team and was keen to have an improved smile.

She had found me on Instagram, and I was also recommended to her by a clinic familiar with my cosmetic work.

## Patient examination

A full examination was carried out and photographs taken. The patient's lateral incisors were peg shaped and both canines had a pointed appearance.

The small size of the laterals accentuated the shape of the canines as the full point was visible (Figure 4).

She had never visited a hygienist and had seen a dentist two years ago who had cleaned her teeth. There was evidence of a clenching habit.

The muscles of mastication were hypertrophic and there were signs of cheek biting on the left and right side.

There was no incisal wear on her front teeth which suggested she was clenching on her back teeth.

The patient had some gum disease so it was explained that this would need to be resolved by attending a hygienist appointment before any cosmetic work could commence.

A note was made of the black triangle between her upper centrals, to discuss whether it should be closed as part of the treatment plan.

I will always highlight a black triangle to a patient even if they haven't noticed it before.

Often when the upper 4-4 teeth are restored by either composite or porcelain veneers, the black triangle can become more obvious once a final aesthetic outcome is achieved.

Therefore, it is important to point it out to the patient. Depending on the treatment plan, it might also be necessary to extend the contact point to close the triangle, if need be.

## Restorative options

The patient's wish to have eight upper teeth restored was discussed in full.

In addition to the restoration of her lateral incisors, she was hoping for some improvement to the mamelons on her central incisors and she wanted her canines to appear less pointed.

Her premolars did not need treatment. It was likely that her initial request to have 4-4 treated was because she had discovered, from her own research, that dentists prefer not to restore 3-3 and treating 4-4 can result in a more natural outcome.

During the consultation, options discussed for

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the restoration of the lateral incisors included composite versus porcelain veneers and the advantages and disadvantages of each.

It was worth considering porcelain veneers because her peg-shaped laterals were so small they would not require any preparation.

I wouldn't normally rush to offer veneers to a 25-year-old but in this case, porcelain could simply be added.

Although not a concern of the patient, it was explained that the points on her lower canines would need contouring.

The lower canines were in lateral excursion with her peg-shaped lateral incisors, so contouring the lower teeth would help prevent the veneers placed on the upper laterals from fracturing and achieve a better aesthetic result.

It was explained that the minimum number of teeth would be treated to achieve the most natural outcome possible.

If the black triangle wasn't a concern, treatment for the central incisors would be to simply smooth off the mamelons.

If it had been important to keep the length of the centrals, I would have suggested composite bonding into the mamelons.

But because of the shape of her smile, it was ▶



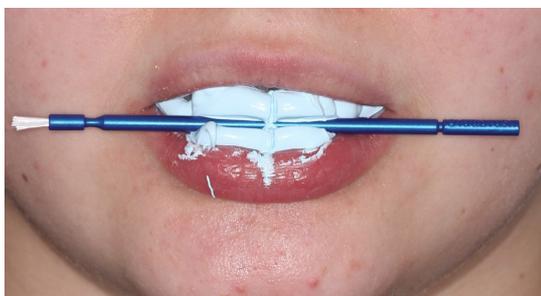
**Figures 1-3:** The patient was unhappy with her small peg laterals and the pointed shape of her canines



**Figure 4:** The small size of the laterals accentuated the shape of the canines as the full point was visible



**Figure 5-6:** A complete aesthetic outcome could be achieved with the placement of a composite wing on the mesial surface of the canines



**Figure 7:** Impressions were taken for a wax-up using alginate and stick bite



**Figure 8:** The mamelons on the upper central incisors were contoured and the peg-shaped lateral incisors prepared on the gingival margin



**Figure 9:** Kulzer Venus Pearl composite B1 shade was chosen to create the mesial wing on the canines

possible to contour to the edge of the mamelons and keep the centrals on the same level as the canines, which is always our aim with smile design.

The patient indicated that she wasn't concerned with the black triangle, so the centrals did not require restoration and contouring was recommended.

Finally, it was explained that the appearance of the pointed shape of the canines could partly be

softened by placing veneers on the lateral incisors.

However, a complete aesthetic outcome could be achieved with the placement of a composite wing on the mesial surface of both canines (Figures 5 to 6).

### Tooth whitening and preparation

Prior to restoration, the patient visited the hygienist to treat her gum disease and impressions were taken for the whitening kit.

At the next appointment the patient was instructed to carry out home whitening for one hour a day for two weeks with Philips Zoom! Day White 6% hydrogen peroxide formula.

The lower canines were contoured using black snap-on discs on a slow speed mandrel and impressions were taken for a wax-up using alginate and stick bite (Figure 7).

After two weeks of whitening and one week's break, the mamelons on the upper central incisors were contoured and the peg-shaped lateral incisors were prepared on the gingival margin ready for the veneers (Figure 8).

### Strong and durable restoration

Kulzer Venus Pearl nanohybrid composite in B1 shade was chosen to create the mesial wing on the canines (Figure 9).

I have been using Venus Pearl for composite



**Figure 10:** A putty index matrix with Venus Pearl was used to create the palatal shell using a layered technique



**Figure 11:** The patient requested that the temporary veneers be made shorter and less bulky



**Figure 12:** The temporary veneers were shortened using a black snap-on disc and contoured using a yellow, long, thin diamond bur

restorations since it was introduced in 2012 and it has never let me down.

The material offers great polishability and adapts perfectly to the colour of the natural teeth due to its chameleon-like characteristics and easy handling.

I use Venus Pearl in all of my smile design cases – it is predictable, strong and durable.

A 35% phosphoric acid etch gel was used to roughen the teeth.

A light-cure, total etch, two-component adhesive was applied with a total-etch technique in accordance with the manufacturer's instructions.



Figure 13-14: At the final appointment the permanent veneers were placed



Figure 15: The patient was 'over the moon' with her smile transformation

A putty index matrix with Venus Pearl B1 shade was used to create the palatal shell using a layered technique but with a single shade (Figure 10).

Finally, the restorations were shaped and polished with Sof-lex discs and completed with diamond polishing paste.

### Temporary veneers

During the same appointment an impression was taken for the laboratory and temporary veneers were placed on the peg-shaped lateral incisors using a methacrylate temporary material.

At this stage the patient could see all the elements of the restoration coming together; the contouring of the lower teeth, the canines built

up with composite, the shape of the temporary veneers and the overall colour.

After spending a week living with her temporary veneers, the patient returned to the clinic and was asked if she would like to make any changes.

She requested that the veneers on her laterals be made shorter and less bulky (Figure 11).

The patient understood that they were currently the ideal planned length but being so used to having peg-shaped lateral incisors, she wanted them made smaller.

The laterals were shortened using a black snap-on disc and contoured using a yellow, long, thin diamond bur (Figure 12).

### Minimally invasive and aesthetic transformation

The patient was happy with the alterations made to the temporary veneers.

Photographs and impressions were taken to relay the changes to the laboratory.

At the final appointment the permanent veneers were placed (Figures 13 to 14).

A night guard was also fabricated to protect her new smile from the pre-existing clenching habit and a new upper whitening tray was made to enable the patient to maintain the new teeth shade.

I was really pleased with the outcome. The treatment has changed the patient's life as previously she was self-conscious to smile because of her peg-shaped laterals.

Now, she has the best smile in the room. The porcelain veneers, composite restoration and contouring all worked together to create an incredible, minimally invasive result that will last her a good length of time.

The patient was 'over the moon' with her final smile transformation (Figure 15) and commented: 'I can't believe that this is my smile!'

She also posted several glowing reviews on social media and recommended my work to her friends. **D**

**I have been using Venus Pearl for composite restorations since it was introduced in 2012 and it has never let me down**

**FURTHER DETAILS** about Dr Rhode's smile makeover course can be obtained by visiting [www.designingsmiles.co.uk](http://www.designingsmiles.co.uk) or by emailing [info@designingsmiles.co.uk](mailto:info@designingsmiles.co.uk).

## Venus® Pearl

"...delivers consistently superior results..."



*The material chosen for the edge bonding was Kulzer Venus Pearl B1 shade. Venus Pearl delivers consistently superior results, particularly when building up incisal edges where strength is important.*

*It is easy to handle – not too fluid and not too viscous – and does not slump. The composite also polishes to a very high lustre to achieve an outstanding aesthetic effect.*

Dr Jessica Wake, St John's Hill Dental Practice

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