The Inman Aligner: part two

Further to the article on Inman Aligners in the March issue, Dr Tif Qureshi demonstrates more cases he has performed with exceptional results

As more and more patients opt to have elective cosmetic dentistry procedures, it is important that all practitioners offer patients viable alternatives as a routine part of their diagnosis and treatment planning. This is essential for medico-legal and ethical reasons. Patients presenting to cosmetic dentists with mild, moderate and severely crowded teeth must be given the choice of dealing with their complaint by orthodontic means.

If a patient has individually unblemished, beautiful teeth that are crowded to any degree, ideally the optimal treatment is always orthodontic, where no or minimal extractions are performed. This should be relayed to the patient in honest and frank terms, so that if even minimally invasive treatment is undertaken, the patient has given fully informed consent.

Patients who present worn, discoloured and chipped teeth who also happen to be suffering from any degree of crowding are often considered ideal instant-veneer cases, because of the fact that the colour and shape of the teeth will only be corrected using laminate facings anyway. As a result, the benefits of orthodontics in minimising the amount of preparation needed for veneers, is perhaps not being fully explained. This might be because of an underdeveloped relationship between orthodontists and cosmetic dentists and hence a lack of co-treatment planning. It may also be because of an all-or-nothing mentality that leads some practitioners to act rather independently. It may also be that many patients seeking cosmetic dentistry simply rule out any form of complex orthodontics because they do not want to wait that long.

In the case-types described above, how many cosmetic dentists are offering their patients the opportunity to reduce the amount of preparation needed by various degrees when their discoloured/ poorly shaped and crowded teeth are being treatment planned for veneers?

This article is written to outline alternative ways of thinking in cosmetic dentistry that can help us de-radicalise or even avoid preps in easy and difficult cases. The following case highlights one example of many patients who present to me initially wanting quite radical cosmetic dentistry.

Patient A was a 20 year-old student who was very embarrassed about her smile and initially asked for four of her upper teeth be removed and be replaced with a bridge. She had ruled out traditional orthodontic methods because she thought it would take years and she felt her teeth were 'ugly anyway'.

After discussing all available options

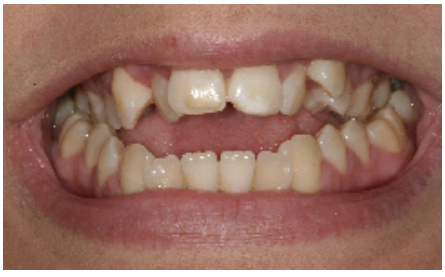

Figure 1: Front View before treatment

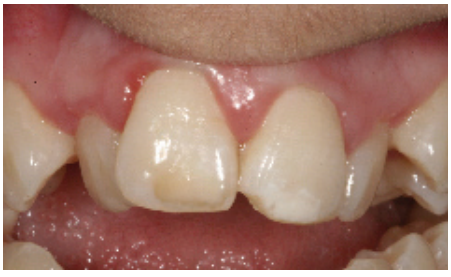

Figure 2: Close View retracted. Impossible positions for correct emergence profiles

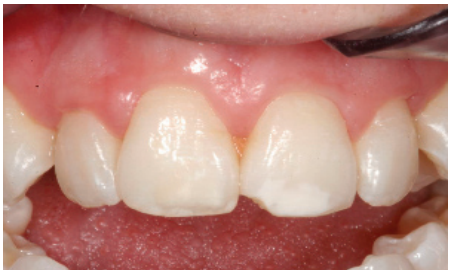

Figure 3: Close view after alignment. Far better positioning for veneer preps

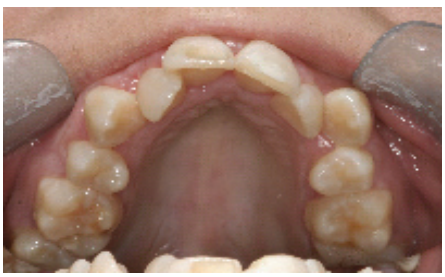

Figure 4: Occlusal view before treatment

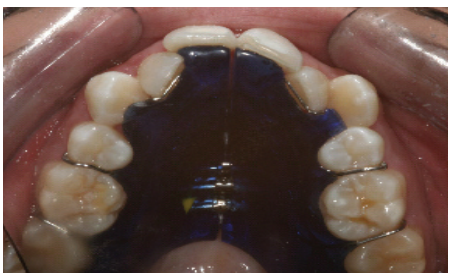

Figure 5: Stage 1 upper midline expander

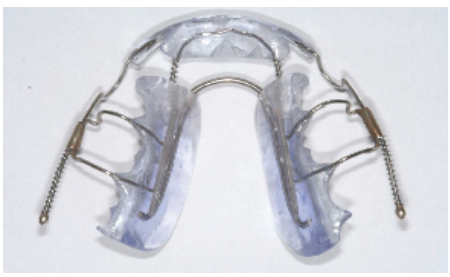

Figure 6: Standard Upper Inman Aligner

to her, she decided to have treatment to at least correct the arch form of the upper teeth before having porcelain veneers placed to minimise the amount of preparation needed. Without doing this, any type of cosmetic dentistry performed with radical preparations would have resulted in aesthetic failure simply because of the difficulty in producing realistic emergence profiles on the lateral teeth. Even with osseous contouring and gingival repositioning, the outcome would have been poor.

As an open bite case on a young adult, midline expansion would be suitable as long as the patient understood that she would need to use a permanent retainer. A traditional midline-expanding device was used for 10 weeks, where the midline screw was half-turned once a week. Then an Upper Standard Inman Aligner was used to push the lateral teeth labially into a more suitable position. Measured interproximal reduction was performed from canine to canine to create space. This took a further six weeks. The patient wore the Inman Aligner as a retainer nightly to stabilise for two months. A wax-up was made on the new arch form incorporating longer more aesthetic teeth.

The teeth were than prepared for veneers, but only minimal preps were necessary as the teeth were far more favourably aligned. Preps were largely kept within enamel and there were no exposures of pulpal tissue. Eight authentic porcelain veneers were bonded and some bleaching, minimal enameloplasty and direct bonding was used to make the lowers look more aesthetic.

Retention consisted of bonding multistrand stainless steel arch wire on the palatal surfaces from upper premolar to premolar. The patient also wore a Hawley type retainer nightly.

The Inman Aligner can be used to align teeth in the anterior region only. Limited movement of canines are a restriction, but there is great scope in movement of incisors, especially in mild/moderate crowding cases of 3.5 mm or less. The rapid speed of tooth movement is due to the use of nickel-titanium coil springs, which use light pressures, but the forces are constant and never let up until the teeth reach their final position. Conventional orthodontic techniques and invisible braces are equally viable if good communication and treatment planning is shared between the cosmetic dentist and the orthodontist. The Inman Aligner, where suitable, has the advantage of being fast and highly cost effective. Ultimately it should be the patient's choice in deciding how much preparation he or she is happy to accept. The cases shown highlight the advantages of aligning before preparing for veneers. More minimal preparations are always more desirable for the patient and the dentist and for a mere three months of extra treatment with a simple removable appliance, this is an option that must be considered for ethical reasons alone.

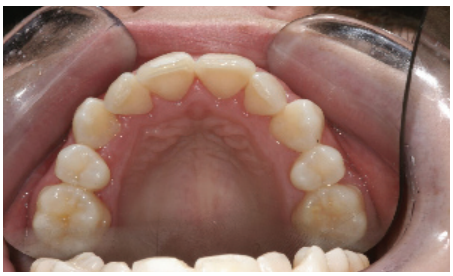

Figure 7: Upper arch post alignment after 10 weeks

Figure 8: Veneers on working model

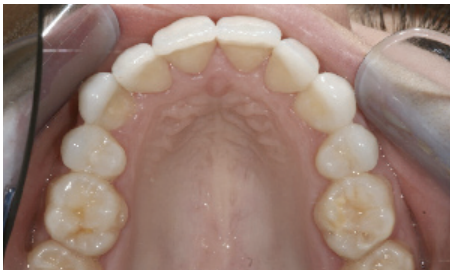

Figure 9: After alignment and veneer placement

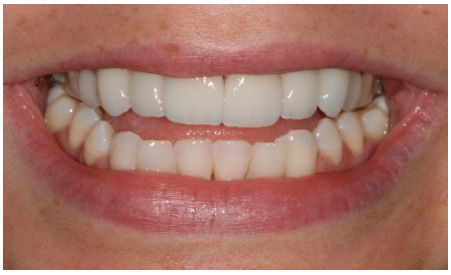

Figure 10: After Inman Aligner and veneers front smile view

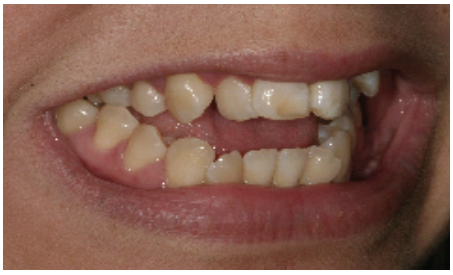

Figure 11: Before right side view

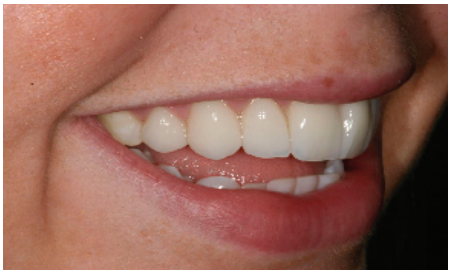

Figure 12: After alignment and veneers left side view

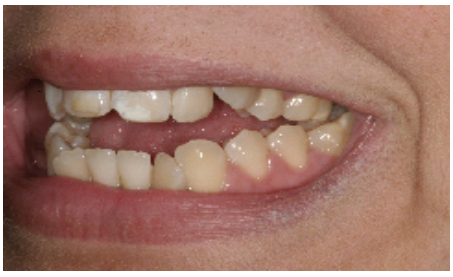

Figure 13: Left side view before treatment

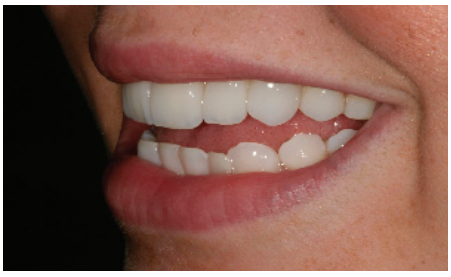

Figure 14. Right side view after treatment

Acknowledgement

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