For nearly 10 years now, the UK has seen a boom in the provision and marketing of cosmetic dentistry. US-led courses have revolutionised the market for elective cosmetic dentistry. There have been huge benefits for private dentistry by allowing practices to develop into high-end businesses and moving dentists into an area where dentistry has become exciting and highly enjoyable.

However, there was always a downside. Many of the cases being treated were simple alignment problems. Part of the mindset in providing a smile makeover was the ability to accept that heavy tooth preparations were a necessity in achieving our goals. Patients consented easily because the orthodontic alternatives seemed unattractive and those who took up orthodontic alternatives were extremely rare.

Working together

The chasm between orthodontics and cosmetic dentistry also certainly didn’t help.

There has been traditionally very little cross-education and co-treatment planning is still not widely employed. Both professions have treated each other with a degree of suspicion, and I think this has not been in the best interest of our patients. This will hopefully change, as one of my roles in the BACD is to form links to the BOS so that we can help cosmetic dentists understand the benefits of orthodontics and orthodontists understand the benefits of cosmetic dentistry.

Approaching alignment

Orthodontics has always been the least favourable option to correct alignment in preparation for a smile makeover, but the Inman Aligner is helping to change this situation. Dr Tif Qureshi explains...
Periostat® contains 20mg doxycycline, a sub-antimicrobial dose.

Periostat®, taken twice daily as support to SRP, inhibits the collagenases that attack and weaken tooth attachment structures and thus halts and can even reverse the disease process.1,2 What is more, being systemic, Periostat® treats the whole mouth in one go.

1. British Society for Paediatric and Adolescent Medicine, Periostat®.
2. Data on file – Alliance Pharmaceuticals Ltd.

**CHRONIC PERIODONTAL DISEASE?**

**WHAT HAVE YOUR PATIENTS GOT TO LOSE?**

Despite new techniques making orthodontic treatment more accessible to GDPs, it must not be forgotten that this is a prized speciality and specialist orthodontists train hard to understand the complexities of full mouth treatment.

Inman Aligner treatment is one such treatment, but it has emerged because of the compromises we had to make as cosmetic dentists. It works well for cosmetic dentists because ultimately adults are usually concerned about the 3-5 region and more often than not, restorative techniques are needed to create an aesthetic smile because adults very commonly suffer from differential tooth wear, erosion and poor tooth colour. It is also massively efficient resulting in treatment times that make the idea of heavy preparations on misaligned teeth seem ridiculous and outdated.

All of a sudden the concept of ‘smile design’ and what we need to do to achieve it, is being questioned by many cosmetic dentists. Is it really acceptable to grind large portions of tooth structure away, now that simple and fast orthodontic alternatives are available?

Ultimately this will always be a patient’s call, but as with any treatment, all options must be offered and fully explained.

Since I have been offering Inman Aligner treatment specifically, my veneer placement rate has dropped by nearly 70 per cent. This has had a massive effect on the type of treatment I am now doing. Far more patients choose Inman Aligners with simple bleaching and bonding techniques to correct irregular wear. Veners are only placed on pre-aligned cases and are nearly always prepped in enamel only on patients who actually need them.

Correcting prominent incisors

The following case is a typical example of the kind of patient I treat every day. This young lady was concerned about her very prominent central incisors. She wanted them to be straightened and had actually considered veneers. She had ruled out conventional orthodontics and invisible braces because she didn’t want anything stuck to her teeth and she also wanted something done quickly. These barriers had
stopped her having orthodontics up to now. Several years ago, she may well have had veneers placed.

On viewing her before occlusal photo (Figure 1), it was quite clear that this would have involved massive preparation to the upper central teeth. This would have been well into dentine and may have even involved elective endodontics. Her lateral teeth would have needed little preparation but the emergence profile would have been poor creating unrealistic aesthetics and a possible periodontal risk later on.

Instead the alignment was completed with an Inman Aligner in 10 weeks. Her treatment sequence was as follows.

Consultation
All options are outlined. BACD-style digital photos are taken and the amount of crowding was calculated using an electronic crowding calculator. This can also be done by arch evaluation of her study models. We measure the ideal curve and subtract this from the total mesio-distal widths of the teeth being moved.

Results show that only 1.6mm crowding exists. This seems less than one would expect, but the reason is that because the laterals are being pushed out, the arch is being expanded thus creating space.

It was clear from the photos that despite the obvious crowding, there was some not so obvious irregular tooth-wear. It was important to outline this to the patient as one’s eyes will start to focus on it once the misalignment is corrected. The patient was quoted for three incisal composite postis.

The patient opted for an Inman Aligner with an incorporated expander. These expanders are a very handy way of creating extra space to either treat more complex cases, or to use instead of performing IPR (interproximal reduction).

Fitting and instructions
On the fitting date the Inman Aligner is tried in. Usage and hygiene instructions are given.

The patient should be shown how to insert and remove the Aligner before any IPR is performed. However, in this case no IPR was performed. We planned to get nearly all the space by using the midline expander.

The patient was instructed to turn the midline screw once a week. The expander is a 1/3 of a revolution and equates to 0.3mm.

Review visits
After three weeks, the patient returned. Case occlusal digital photos were taken and the comparison shots are examined. A small amount of movement has been achieved already and this is extremely useful for patient motivation.

The aligner is checked for tension and effectiveness and the patient is sent away for another three weeks. She will continue to expand once a week.

After nine weeks, she has expanded 1.8mm and her teeth were in alignment. As a rule, less than 1.6mm expansion with an incorporated expander is easily tolerated. Beyond this and the patient may require a small amount of occlusal equilibration. Beyond 2.5-4.5mm, expansion should be performed with a separate expander such as a fan-screw or a separate midline. However, these cases should really be approached by experienced clinicians or orthodontists.

At this point the case was nearly completed with the Inman Aligner. A finishing excis clear aligner was made to retain and stabilise the teeth for a four-week period. A pre-adapted wire retainer is then bonded using a jig for long-term stability.

Looking at her post-aligned result, the golden proportion, gingival heights and axial-inclinations have improved dramatically—all without a hand-piece being picked up and in the space of nine weeks.

Completing the aesthetic puzzle
What was very clear at this point was that the patient needed some simple bonding to improve the incisal edge outlines. No anaesthetic was needed. These were done with very slight roughening of the edge and bonding of hybrid composite on the load bearing edge and a micro-fil on the facial surface. They were then polished.

Discussion
This patient was thrilled with the result we achieved using an Inman Aligner and some simple bonding. She described that when she had once considered having veneers, she had hoped for a similar result. There are still minor imperfections, but in my opinion these contribute to her natural beauty.

There is a stark contrast in the potential treatment approaches in this case. Where once a patient who refused orthodontics, would have consented and received highly aggressive tooth preparations to achieve correct alignment with veneers, now a removable aligner and some simple bonding can achieve a similar and arguably better result in less than three months with not a micrometer of tooth reduction needed.

The future of cosmetic dentistry is facing a change that is here already.

Dr Tif Qureshi will be speaking on Inman Aligners at the BACD annual national conference in Edinburgh, The Future of Cosmetic Dentistry in November 2009.

About the author
Tif Qureshi qualified from King’s College London in 1992. He on the British Academy of Cosmetic Dentistry (BACD) board of directors, and a partner at Dental Elegance in St Johns, Kent where he practices minimally invasive cosmetic and restorative dentistry. He an active and sustaining member of the American Academy of Cosmetic Dentistry. Tif has a special interest in simple orthodontics using removable appliances and was the first dentist in the UK to pioneer the Inman Aligner and the first dentist in the world to use the Aligner as a tool for cosmetic dentistry. He has completed over 600 cases using Inman Aligners as a stand-alone treatment and to align teeth before veneer preparations. Tif now lectures nationally and internationally on the subject and has started running a hands-on programme to teach general dentists this new technique.

### The Inman Aligner hands-on course with Dr. Tif Qureshi

**The greatest innovation in cosmetic dentistry since the porcelain veneer** Dr. Tim Bradstock-Smith

**Learning Objectives:**
- Diagnosis and case selection
- Arch evaluation
- Fitting and adjusting an aligner
- Interproximal reduction
- Retention technique
- Restorative pre-alignment
- Ethical considerations

**Don’t miss out! This will transform the way you practice dentistry forever!**

**Case 1**

**Case 2**

**Case 3**

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Online Learning coming soon!