Importance of Support and Mentorship for Reliable Results

Calum Imray from Stafford Street Dental Care in Edinburgh, Scotland, details his first anterior alignment case using the IAS Inman Aligner appliance

By Calum Imray, Scotland

I have always felt the most impressive restorative and aesthetic dental treatments are those, which lead to "invisible" results, providing the most natural appearance possible whilst preserving as much of the existing tooth structure as possible. As part of this philosophy, I was keen to be able to offer my patients a simple orthodontic system that required no extractions and minimal tooth preparation. After researching several systems, I was introduced to the IAS Inman Aligner by colleagues who were already certified users and I decided to take the hands-on certification course.

Patient history, examination and treatment planning

My first case involved a young female patient who wanted to correct a mild alignment issue before her wedding. She had no medical complications, a minimally restored dentition and good oral hygiene. Her main complaint was the slightly protruding upper left central incisor. The mild crowding of the lower anterior teeth did not concern her. The occlusion was stable with a Class 1 molar relationship and canine guidance and there was no history of parafunction or cusp fractures.

Following a normal examination, we assessed the space which would be required to align the patient’s upper anterior teeth by taking clinical photographs and then measuring the mesio-distal widths of the teeth and drawing a trace of our desired arch curve using Spacewize™ arch evaluation software (available free to all IAS practitioners). This estimated that around 1.6mm of space would need to be created by interproximal reduction (IPR) using diamond strips. Considering the beauty of the unrestored anterior teeth and the minimal amount of tooth preparation required in this case, the patient and I agreed that orthodontic alignment and some tooth whitening would be preferable to more extensive restorative approaches such as direct or indirect veneers.

After posting the initial photographs on the online forum and receiving advice from two IAS Academy mentors, PVS impressions were sent to the lab along with instructions for the desired movements. A full treatment plan, 3D printed models of the potential end result and the IAS Inman Aligner itself were returned ready to start the case. The 3D modeling determined that in total, 2.2mm of space creation would be needed.

Treatment

At the fit appointment, a small amount of IPR was performed and the patient was instructed to wear the aligner for around 20 hours per day, removing it to eat and brush her teeth. After just 11 days she returned with a noticeable improvement and a subsequent set of photographs and IPR were posted on the forum after each review until the case was...
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complete. Importantly, performing IPR incrementally at each review appointment ensured that no unnecessary tooth preparation occurred. In total, the patient wore the aligner for 13 weeks before a fixed retention wire was placed and she was delighted with her results! In reality, had she been able to attend every two weeks, the case would have been completed even quicker.

Case summary and self-appraisal

Looking back at the case, I realise the importance of consistent positioning for clinical photographs, particularly the occlusal mirror shots. I could have displayed the final results more effectively and achieved a more accurate Spacewize+™ estimate with a little more care when positioning the mirror. In an ideal world we would have also aligned the patient’s very slightly crowded lower incisors before they move any further and require more extensive IPR, but this was not her primary concern and can be addressed at another time.

In this first case and ever since, my experiences with the IAS Academy and the IAS Inman Aligner have been nothing but positive. The application provides an ideal introduction to GDP orthodontics by focusing the user on simple anterior alignment cases and there is great online support from the same clinicians who lead the training courses. These are two aspects I feel are crucial for any young GDP moving into a new discipline within dentistry – simplicity and readily available mentoring.

I am now looking forward to training with another IAS orthodontic system, the IAS Clear Aligner, which will open up more options for my patients.

Problem list:
- Protruding UL1
- Mild crowding in the arch with slightly malpositioned lowers

Treatment aims – ideal:
- Correct position and inclination of the UL1
- Correct alignment of the lower incisors

Treatment aims – compromised:
- Correct position of the UL1
- Accept mild lower crowding

Treatment plan:
- Use an upper IAS Inman Aligner
- Progressive 2.2mm of IPR to create sufficient space for tooth movement
- Lifelong retention with a bonded retainer

<table>
<thead>
<tr>
<th>Date</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/2/16</td>
<td>Initial assessment, Spacewize+™ evaluation and photographs</td>
</tr>
<tr>
<td>21/4/16</td>
<td>0.88mm of IPR performed, composite anchors placed palatally on laterals and patient instructed to wear IAS Inman Aligner for 20 hours per day</td>
</tr>
<tr>
<td>2/5/16</td>
<td>Review of movements after 11 days. Composite anchors adjusted for comfort. Some spaces still to close before next IPR phase.</td>
</tr>
<tr>
<td>10/5/16</td>
<td>0.88mm of IPR performed, composite anchor placed labially on UL1 and more photographs taken</td>
</tr>
<tr>
<td>25/5/16</td>
<td>0.39mm of IPR performed and more photographs taken. Final tooth positions reached after 60 days of treatment. Patient happy to proceed with impressions for fixed retainer. Bonded fixed retainer wire from canine to canine and final photographs.</td>
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</tbody>
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