The Inman Aligner: A detailed step-by-step case study

By Dr Tif Qureshi takes us through this example of Inman Aligner therapy

This article will detail a step-by-step approach to Inman Aligner therapy. The Inman Aligner was introduced into the UK by myself to offer patients wanting a fast solution to crooked teeth, and another option other than veneer preparations.

Since then nearly 100 dentists have trained to use the system and many cosmetic dentists are realising that aggressive veneer preparations could soon become a thing of the past because of the remarkable efficiency of the Aligner and the ability to employ a far more ethical approach.

Introduction

This patient was a 26-year-old female who presented wanting a better smile four months before her wedding. She complained that her teeth were 'straight once' but that she had only been told to use a removable retainer after orthodontic treatment. She had already had several consultations for treatment. She had already had several consultations for loss of some of her preparations would have been highly destructive. Not only would that have been highly destructive, but the veneers would have been bonded to the dentine rather than more ideal enamel. This kind of treatment has been prevalent in the UK until recently. Fortunately pre-alignment techniques are so much quicker now using systems like the Inman Aligner, a far more conservative and ethical outcome is possible.

The patient was offered all available options and chose the Inman Aligner. Assuming space calculations were correct, an Inman Aligner would be suitable. She also requested that her teeth were whitened and that a few small defects were corrected. Her upper left lateral would require internal bleaching. Despite this, she was still keen on having veneers after the treatment to get a perfect smile, but at least her teeth would be straighter and the veneers more minimal.

Sequence of planning

1) Full examination to check the health of the teeth and gums. Cases should be occlusally stable and free from periodontal disease and caries.
2) Study models and full clinical photographs are taken for planning. Periapical X-rays are taken of the teeth being moved and those supporting the Aligner, to ensure that no apical or periodontal pathology exists. Before photographs are essential to demonstrate movement achieved to the patient (it is highly recommended to take sequential photos at treatment reviews. This has a great motivating effect on the patient, and quickly dispels any questions that the treatment may not be working).
3) Arch Evaluation is completed. We need to assess the amount of space needing to be created through IPR or subtracting to get the amount of crowding present (the available space) and then the ideal curve (the required space) and of course using expansion techniques. In this case 2.8mm of crowding was calculated by measuring the teeth (required space) and then the ideal curve (the available space) and subtracting to get the amount of crowding present or the amount of space needing to be created through IPR or expansion.
4) Impressions of both arches are taken and the prescription form is sent to the technician.

Prescription

A full and detailed prescription is essential for construction of the Aligner. All Inman Aligners are created on corrected models. This means that the operator needs to tell the technician where exactly he or she wants the teeth to move.
1) What type of Inman Aligner (in this case a standard upper). 2) What teeth are being moved (we plan to straighten 212 so these teeth are ticked). In a more crowded case (beyond 3mm) we might distalise the canines with proximal reduction techniques. One should also describe where IPR is being induced by the aligner on the anteriors so we would tick these too.
3) What springs. Generally 010x030 springs are used in mild or moderate cases buccally and palatally. 012x030 springs are available, but are best left for larger retractions.
4) Amount of IPR. The measurements will have been easily calculated from the arch evaluation and should be passed to the technician. One should also describe where IPR is being planned. In this case it will be on all the contacts from the mesial of the canine to canine. On the incisors it is generally accepted that 0.5mm per contact is a safe amount to remove.

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3) Arch Evaluation is completed. We need to assess the amount of crowding present. The Inman Aligner requires that 3mm of space can be created through inter-proximal reduction from the mesial of canine to canine. More space can be claimed in suitable cases by IPR between the premolars and canines and of course using expansion techniques. In this case 2.8mm of crowding was calculated by measuring the teeth (required space) and then the ideal curve (the available space) and subtracting to get the amount of crowding present or the amount of space needing to be created through IPR or expansion.
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Dr Tim Qureshi qualified from King’s College London in 1992. He is on the board of directors of the British Academy of Cosmetic Dentistry, an organisation that is promoting cosmetic dentistry in the UK and which has embraced orthodontic techniques to help minimise tooth preparations in cosmetic cases. He is a partner at Dental Elegance in Stupce, Kent, where he practises cosmetic and restorative dentistry. He is also a delegate and founding member of the London Academy of Cosmetic Dentistry. He has a special interest in simple orthodontics and removable appliances, and was the first dentist in the UK to pioneer the Inman Aligner. He has completed over 300 cases using Inman Aligners as a stand-alone treatment and to align teeth before veneer preparations.

References
2. Kameyama, T. Inactivated periods of constant orthodontic forces related to desirable tooth movement in rats. Orthodontics Sci. Department of Orthodical Development and Function, Division of Oral Health Sciences, Graduate School, Tokyo Medical and Dental University, 1-5-45 Yushima, Bunkyo-ku, Tokyo, 113-8549, Japan. E-mail: kame.orts@tmd.ac.jp.

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Dr Tim Qureshi, Dr Tim Bradstock-Smith and Dr James Russell are currently running hands-on courses in the UK and Europe to teach the Inman Aligner system and its philosophy. To find out more go to www.straight-talks.com.

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