Interview: “It is not magic—it is not going to make the diagnosis for you...”

By Dental Tribune MEA

The Ormco Forum Dubai 2018 took place from 06 to 08 December 2018 at Palazzo Versace, Dubai, UAE.

Dental Tribune had a pleasure to ask the key speakers of the Ormco Forum Dubai 2018 about the Damon System.

Could you please share more about yourself?

Dr Firas Hamzeh: I am simply an orthodontist working in a private practice in Dubai, who has a special interest in digital orthodontics and all the new concepts in orthodontics. I am always willing to give the best treatment options to my patients. Over the past few years, I have become an educator for Damon System and Invisalign and I started spending more time educating other doctors and sharing my clinical experience with them.

Dr Bill Dischinger: I am a licensed orthodontist in the United States of America and I received my certification in 1999. I have two private orthodontics practices in the northwest area of America. I also teach at the University of the Pacific’s Orthodontics Department in San Francisco.

Dr Matias Anghileri: I am from Buenos Aires, Argentina. I am married to a dentist and we have been together since our first year at university. We have two kids, aged 6 and 8. I have been a full practice orthodontist for the past 16 years. I am the third generation of dentists in my family and I enjoy my work every day in my office, as well as my work as an educator.

When did you first hear about the Damon System? Dr Hamzeh: It was in 2003, and I started using the Damon System in 2004. A few years later I became an exclusive Damon user.

Dr Dischinger: I first heard about the Damon System—as presented by Dr. Firas Hamzeh—during my residency in 1999. It was an amazing paradigm shift with regards to my way of thinking about orthodontics. It was 13 years ago at a conference. I was completely amazed by the system and its results.

What prompted you to provide it as a solution in your practice?

Hamzeh: It is the quality of treatment that we got at the end and the entire Damon System philosophy that made me change my mindset of how I was treating my patient. I especially like the concept of using light forces, reducing the number of extractions in my practice and the quality of the finishing.

Dischinger: Immediately after hearing Dr. Hamzeh teach about his system, I decided that it was how I was going to treat my patients. From the viewpoint of pure biology—of how to move teeth in a healthy, non-invasive manner—the system just made sense to me and I wanted to use that concept in my practice.

Anghileri: I felt that by using the Damon System I was going to provide better results to my patients in a shorter time.

Could you explain what Damon braces are?

Hamzeh: I do not call them Damon braces; in fact, I call it the Damon System. I do not deal with the braces as a new product or as a new bracket with special features—it is a philosophy and a new treatment concept. If we use the Damon braces, we should use the Damon protocol and the Damon mechanics, because if we use the Damon braces with traditional or conventional mechanics, we will not obtain the results we are aiming for. With the Damon System, we apply very light forces to the teeth that are very close to the physiologic forces. Considering both aesthetics and functionality at the same time, we reduce the treatment time with less pain and we treat faces, which is why we call it “face-driven orthodontics.”

Dischinger: Damon braces are a type of brace that holds the wire in place using a gate or a door system, rather than the wire having to be “tied into” the brace. By doing this, the amount of friction that the braces and the wires have within their system is reduced. If the system has less friction within it, then the wires do not have to be so strong or have to apply as much force to move the teeth, since they do not have to overcome all that friction. It is kind of like moving furniture on a carpet, compared to moving furniture over hardwood or tile flooring. Think about the force you would need to push the furniture across in each of those instances.

Anghileri: Damon braces are, from my point of view, a turning point in modern orthodontics. Undoubtedly, self-ligating brackets are the present and future of our specialty. Since the launch of the first version in 1998, we have seen that every company has developed this type of bracket.

What are the main advantages of the system?

Hamzeh: The main advantages of the Damon System are a reduction in treatment time with less pain and a reduction in the number of extractions. No headgear or expanders are required [as with traditional braces] and the improved aesthetics and functional results of the system make it easier for me to apply.

Dischinger: As mentioned above, the force required to move the teeth with the Damon System is much lower than with traditional braces. This leads to less inflammation within the teeth, bone and gums, which allows the teeth to move more efficiently, with little or no damage done to the body during the process.

The teeth hurt less with this process (I know as I have had both types of braces in my mouth). This leads to a healthier, more biologically sound way of moving the teeth, in my opinion.

Anghileri: Well, I think in your question is the answer. It is not just a bracket with a door. It is a system with three pillars—the main concepts of the Damon philosophy—using low forces and prioritizing facial features, using high technology Copper NiTi archwires and finally, the solid bracket with more than 20 years of evolution behind it.

What is the main difference between the Damon System and other traditional braces?

Hamzeh: A lot of the mechanics are different from traditional braces, but the main difference lies with the philosophy of the Damon System. For example, with Damon System braces we use very light elastics from light wires from the very beginning, which we cannot do with traditional braces. We also use variable torque for the front teeth—based on each individual’s case—which we cannot do with traditional braces.

Anghileri: We have to understand that the biology is always the same. A bracket or a system will not change that. However, I see the same positive results every day in each and every one of my patients, teeth move faster and healthier, because of the low forces acting on them. The treatments turn out to be simpler and more comfortable for the patient—with reduced treatment time.

What will the overall results of using the Damon System in a practice, not just clinically, but also in terms of patient loyalty?

Hamzeh: Using the Damon System improves the entire patient journey during their orthodontic treatment. You will also end up treating more patents, because you spend less time and less sessions on the treatment, which affects the practice’s productivity. It allows the orthodontist to treat more and more new patients, which would result in a better reputation.

Dischinger: When we explain the Damon System process to patients, it just makes sense to them. They often ask us why is it that everyone does not use this system. Our answer is that it is more expensive than traditional braces and there is a learning curve required to get comfortable and knowledgeable in using the system because of these reasons, some doctors are hesitant to change.

We have many patients come to our office, because they are searching for a more natural way—a healthier way—of moving teeth or they have heard of the Damon System or have done research on it online. It has helped our practice to be known as one of the foremost Damon System practices in the world.

Anghileri: Many patients come to my clinic asking for the Damon System, because they have seen the results on other former patients. When they start a Damon treatment with me, they know there is a guarantee of success.

What would you say to your colleagues who are hesitant about using the system?

Hamzeh: I would encourage every orthodontist to use the Damon System, not with the same conventional mechanics that were used before. Follow the Damon System’s treatment protocol and use its mechanics and compare the results and treatment time with previous results. Of course you cannot apply it only to a few cases, you need to treat more and more Damon cases. We keep learning from our mistakes and the mistakes of the others, which is also why we attend the Damon courses.

Dischinger: Look at the biology of moving teeth. We are in the health care world and we need to do everything we can to move teeth in the most efficient, healthiest way we can. Take courses that teach you how to use the system and try some cases with it. You will immediately see the difference in how the teeth move, in the comfort to the patient and the overall efficiency of the cases being treated. Do not be afraid to make a change.

Anghileri: It is not magic—it is not going to make the diagnosis for you—but I can assure you that if you are a good orthodontist, with the Damon System in your hands, you are going to achieve wonders in your patients.
Six keys to effectively using alveolar corticotomy
A different perspective on surgically assisted tooth movement

By Dr Raffaele Spena, Italy

Introduction

Alveolar decortication (corticotomy) has long been used with orthodontic treatment in order to accelerate orthodontic tooth movement (OTM) while reducing the undesired effects of root resorption, loss of vitality, periodontal problems and relapse of the corrections. The acceleration of tooth movement should shorten the therapy. However, the scientific and clinical assumptions of the early days were totally different from the more recent ones we moved from a pure mechanical approach to a biological and physiological one.

In 1983, Suya proposed a great improvement of the surgical approach described in 1959 by Kole modifying the horizontal osteotomy in a corticotomy, avoiding the alveolar crest in the vertical cuts and eliminating the luxation of the blocks. He proposed this “corticotomy facilitated orthodontics” to treat adult patients, angled teeth and crowded malocclusions to avoid premolar extractions. Like Kole, Suya believed he was creating bony blocks and suggested accomplishing most of the movements in the first three to four months of treatment before the fusion of the blocks (healing of the bone).

The concept of corticotomy-assisted OTM drastically changed in 2000 after the publication of Wilcko et al. In this key case report, two adult patients received a selective corticotomy, along with alloplastic resorbable grafts, to increase the bone level and avoid the risk of recurrences. An accurate evaluation with CT scans before and after treatment, and histological sections in one case, allowed the authors to formulate a new hypothesis about what really happens at the bone level after corticotomy. No movement of tooth-bone blocks, but a transient reduction of mineralisation of the alveolar bone and modifications similar to those described by Frost during the healing of fractured bones and named “regional acceleratory phenomena” (RAP) most likely occur. The surgery-orthodontic protocol proposed by Wilcko et al has been subsequently patented as Periodontally Accelerated Osteogenic Orthodontics (PAOO). The claims of PAOO are (a) accelerated tooth movement with reduction of the total treatment time, (b) osteogenic modifications with transportation of the bony matrix, and final improvement of hard and soft tissue support of the teeth treated orthodontically. (c) increase of the short- and long-term stability of the orthodontic treatment. So far, scientific evidence has been given only on the acceleration of tooth movement; the transient, and lasts as long as there is a RAP modification in the alveolar bone surrounding the teeth. After more than one and a half decades of clinical experience with alveolar corticotomy, in light of the current literature published on this topic, six rules have been established that should be taken into account when considering using alveolar corticotomies in a complex orthodontic case. These keys are the best way to ensure effectiveness and reduce the risk of producing no positive effect or, worse, causing damage. The six keys are as follows. 1. Alveolar corticotomy is to facilitate OTM. 2. Alveolar corticotomy has limited effect in time. 3. Alveolar corticotomy has limited effect in space. 4. A proper surgical procedure must be followed. 5. Proper orthodontic management after corticotomy must be performed. 6. Proper patient selection for corticotomy is essential. A detailed description of each rule follows.

1. Alveolar corticotomy is to facilitate orthodontic tooth movement (Periodontally Facilitated Orthodontics)

Speed is a fascinating issue in life. We like to go fast in cars, motorbikes, boats, airplanes and so forth. Speed in orthodontics is a different matter. It is one of the main objectives of modern orthodontists to reduce treatment time, but we must recognize that a great number of variables may affect it. The initial difficulty of the malocclusion and tooth malposition, the age of the patient, the variability of the individual response to the treatment, the quality of the end result, and the patient’s compliance are just a few of the variables that should be considered. Numerous case reports have been published showing how treatment time can be reduced when patients are treated with corticotomy. Case reports, however, have limited scientific validity. The predictability and quantification of treatment time reduction are still not scientifically possible. The additional expenses and morbidity associated with the use of alveolar corticotomy should always be carefully evaluated to determine whether they are worth the saving of few months. A shorter orthodontic treatment is desirable, but certainly not at the expense of a high-quality end result.

Regarding OTM, numerous studies have shown that its speed is influenced by bone turnover and the individual response to mechanical forces and it is not related to the level of the forces.12–15 Clinical experience confirms this: there are slow movers and fast movers, but we are still far from recognizing them. In addition to this variability, there is the temporary effect of alveolar corticotomy, which we will discuss under the third key. A faster treatment may be a secondary advantage and may be obtained in a substantial way only in those “simple” orthodontic cases that require a naturally short treatment.

In conclusion, alveolar decortication should not be combined with orthodontic treatment with the only objective of accelerating OTM and reducing treatment time: the risk of not obtaining either as desired may be high. Despite this scientific evidence against its major claims, alveolar corticotomy has its place in orthodontic therapy. Let us consider the surgical insult and the associated RAP fracture produced at a biomechanical level: the increased metabolism, the transient reduced density, the endocortical to exocortical transition, the reduced nutrient resorption and hydraulic disturbance (we still do not know exactly what happens in humans) facilitate OTM. The decorticated teeth is less resistant to orthodontic forces and will be easier to move and will require less anchorage. Spena et al. in two studies conducted on a total of 12 adult patients with Class II malocclusions treated with distalisation of the maxillary molars showed how maxillary molars could be bodily distalised with simple buccal mechanics and no anterior anchorage.36, 37 Corticotomy was performed only on the teeth to be moved, thus reducing the anchorage needs and their resistance to distal forces.

The term “Periodontally Facilitated Orthodontics”, instead of “Periodontally Accelerated Osteogenic Orthodontics”, is used to describe a procedure that has the primary goal of simplifying, enhancing and improving OTMs that are difficult or risky, from a biomechanical and biological point of view. The surgical procedure and the associated orthodontic treatment and biomechanics depend on the initial problems and the goals of every single specific treatment. This is in agreement with Chong et al. corticotomies should be used to “facilitate the implementation of mechanically challenging orthodontic movements and enhance the correction of moderate to severe skeletal malocclusions”18.

2. Alveolar corticotomy has limited effect in time

Since the early studies of Frost on the biology of fracture healing, it is
known that the altered metabolism of bone after a traumatic (or surgical) event has limited duration: it is the natural search for equilibrium or homeostasis. The burst of hard- and soft-tissue remodelling starts a few days after the insult, peaks at the first or second month, and returns to a normal pace after a maximum of four to six months. This RAP reaction, when applied to the alveolar bone, causes an accelerated/facilitated movement of the teeth subjected to applied orthodontic forces. The effect lasts for as long as there is this reaction, so for a limited part of an orthodontic therapy. This has been confirmed by experimental studies on animals and by clinical studies on patients. Clinically, this temporary phenomenon leads to the need to perform the alveolar corticotomy when the RAP is necessary. Timing is fundamental. Alveolar corticotomy may be repeated during the treatment with the objective of prolonging the effect. The effective benefit, cost and risks must be taken into account. Sanjideh et al. in a split-mouth study on foxhounds found that a second corticotomy performed after 28 days in the mandible produced a higher rate of tooth movement and a greater total tooth movement. However, they concluded that proper timing for a second corticotomy needed to be better determined. Wilcko, Dibart, and Murphy claimed that continuously activated orthodontic forces applied after decortication may maintain a constant mechanical stimulation, and allow a prolonged osteopenic state during which teeth can be moved rapidly.

In order to achieve this effect, they recommended seeing patients frequently (every two weeks) and continuing the activation of the applied orthodontic forces. If not, remineralisation would complete the healing process and bring the bone metabolism to a normal level. It must be said that these claims have never been demonstrated either clinically or histologically.

3. Alveolar corticotomy has limited effect in space

The effects of alveolar corticotomy are localised to the area immediately adjacent to the site of injury. Different surgeries may affect differently the resulting OTM. Glenn et al. and Tuncay and Killiany, in two experimental studies on animals published before the new trend on corticotomy, found that fiberotomy (a corticotomy limited to the crestal side of the alveolar bone) affected the rate of OTM and shifted the centre of rotation toward the apex of the roots, thus modifying the biomechanical behaviour of the teeth under the orthodontic forces. If the surgical insult is applied to a limited area of the alveolar bone (i.e. middle third and only buccal surface: Fig. 1), the RAP reaction will not be extended to the entire root area. The modifications at the bone level will be limited at the area of the decortication, and control of the apical and lingual sides will not be influenced as desired.
As a general rule, if a mesiodistal bodily movement or better control of the apical area are the biomechanical needs of the OTM to be achieved and enhanced (i.e. intrusion/extrusion), the decortication needs to be extended to the entire alveolar bone surrounding the roots of teeth, buccally and lingually (Fig. 2), if the movement is less complex or anatomical limitations of the surgical site impede an extended decortication, the cuts may be limited in the direction of the OTM. These biomechanical needs determine the type of procedure in both the open flap and the flapless surgeries.

4. A proper surgical procedure must be followed

Several surgical protocols for performing alveolar corticotomy have been proposed. Most of them have been tried in the last 15 years on several patents. These surgeries may be divided into two groups: the open flap and the flapless corticotomies (Tab. 1).

The original corticotomies were performed after raising a flap. This type of surgery is still preferred when an extended or critical area of decortication has to be managed and when an extended grafting is planned.

The flap can be designed according to the periodontal characteristics of the site and has to be full thickness in the area of decortication and split thickness below this area to ensure a good blood supply. Interproximal and subapical cuts of 2 mm in the cortical bone (Figs. 3 & 4) are performed together with a light scraping of the external cortex in between the cuts. This extended surgical insult will produce a wide RAP reaction and prepare a bleeding bed for any grafting material eventually placed in association with the decortication. Piezo-surgical/calibrated micro-saws are preferred to rotating surgical burs because of their selective, safer, micrometric and more precise cuts, better irrigation/cooling effect from cavitation, better comfort for the surgeon, and better healing for the patient. The open-flap corticotomy procedure is routinely used during orthognathic surgery, when exposing impacted teeth, to treat transverse maxillary deficiencies and periodontally involved cases.

Flapless surgery has been proposed as an alternative way of performing a corticotomy. Corticocuret and Pi-eocuret have been attempted to reduce the invasiveness of the decortication and the possible periodontal damage and postoperative discomfort with raising a flap. Even if attractive, they seem to have surgical and biomechanical limitations.

The surgical limitations include risks when performed in crowded arches, limited visibility when producing the cuts, limitation of the cuts to the interproximal areas and to the middle third of the roots, difficult control of the grafting in the apico-coronal direction and need for optimal extension of the attached gingiva in the area of decortication. The biomechanical limitations are strictly related to the fact that corticotomy is performed only on the buccal side and middle third of the roots.

They are definitely not minimally invasive surgeries as claimed and are quite expensive for the patient, since only a well-trained periodontist/oral surgeon can perform them and they often require complex planning with digitally designed 3D surgical guides.

The Micro-Osteo–Perforations (MOPs) described by Alikhani et al 34 and Tenenac et al 35 are an effective and minimally invasive way of producing insult to the cortical alveolar bone. These MOPs may be created with manual instruments (Excilor, Propel Orthodontics) or with dedicated burs on a reduced speed electric handpiece (Fig. 5).

MOPs are produced with a penetration in the cortex of a maximum of 1–2 mm. Instead of conventional local anaesthesia, a strong anaesthetic gel placed on the mucosa for three minutes is sufficient to control the patient’s pain and discomfort. It is advisable to produce two to three MOPs in each interproximal area of the teeth and both buccally and lingually (Fig. 6). It is to ensure that the metabolic changes are extended around the entire radicular alveolar bone. Manual MOP is usually created in the frontal and lingual areas (Figs. 7–9). The procedure and the precautions are similar to the insertion of mini-screws. Orthodontists can easily create MOPs at the chairside, and the cost is a great deal more affordable for the patient. Finally, they can easily be repeated during treatment if additional bone augmentation is needed. No packing and no sutures are necessary after MOP. The limit is that no grafting can accompany MOP.

When possible and desirable, grafting may accompany alveolar corticotomy. The grafting is usually planned before surgery, based upon initial clinical and radiographic evaluation, the desired OTM, and the short- and long-term periodontal considerations. In situations of thin bone and a thin gingival biotype, with risky movements like expansion, labial positioning or anteroposterior movements in reduced bone volumes, grafting may be indicated to reduce/elimate fenesations and alveocortical, produce additional support for the roots, and improve final aesthetics and stability.

Grafting may include hard-tissue, soft-tissue and autologous growth factors. Quality and quantity may be modulated at the surgery depending on the classical periodontic and the surgical site. As a general rule, composite bone grafts where allogenic bone (bone from human cadaveris that is freeze-dried to reduce anti- genicity and demineralised to expose the underlying collagen and its growth factors, like bone morphogene tic protein) with osteoinductive properties, is mixed with xenogenic bone (bone usually from bovine animals that provides a physical matrix or scaffold suitable for deposition of new bone and that prevents its rapid resorption) with osteoconductive properties are preferred (Fig. 10).

Soft-tissue grafts are added to bone graft when a thin biotype or gingival recession is present. If the area to be regenerated is small, an autologous connective tissue graft is the gold standard procedure. Large areas may be managed with allogenic human acellular dermal matrices, that are available in different sizes and thicknesses (Fig. 11).

Soft-tissue grafts are sutured with resorbable sutures. Both bone and soft-tissue grafts are coupled with autologous growth factors. With ageing, the number of stem cells rapidly decreases. These cells are important in cases of injury and healing processes. Studies have shown that growth factors from platelet-concentrated plasma (platelet-derived growth factor, vascular endothelial growth factor, transforming growth factor beta 1 and 2) may rapidly increase the number of the available stem cells, stimulate their activity, as well as reduce inflammation and pain during the healing processes. Platelet-rich fibrin (PRF) 38, 39 and the platelet rich in growth factors (PRGF) 40 are prepared via two different protocols in which blood centrifugations allow separation of the plasma platelets from the red cells. PRF contains leukocytes and the process for its preparation produces membranes with a light compression of the centrifuged fraction.

The process for preparing PRGF allows the separation of three fractions with different concentrations of platelets. They may be mixed with bone grafts (increasing the graft’s vascu- losity and adherence to the surgical site, thus facilitating its application) and soft tissue grafts. Activating and
heating the PRGF fraction produces clots/membranes of fibrin that are placed on the bone grafts, stabilising their position [Fig. 12].

When using grafts along with alveolar corticotomy, a tension-free flap closure must be achieved at the end of the surgery, to provide optimal coverage of the dectoected area and the grafted material, and to enhance final soft-tissue healing. Non-resorbable sutures are left for at least 14–21 days.

5. Proper orthodontic management after corticotomy must be performed

Orthodontic treatment associated with periodontally facilitated orthodontics may be carried out with any fixed or removable appliances. It is the clinician’s choice to combine periodontally facilitated orthodontic procedures with fixed, active self-ligating appliances (In-Ovation) with the new prescription of the COO System (GAC-Dentsply Sirona; Fig. 13). The management and wire changes of appliance treatments, with a Class II malocclusion, are similar to those of any orthodontic case. No initial heavy force is necessary. There is no rule regarding timing of the bond ing: in some cases, appliances are placed a week after the surgery, while in others (for example, when distalising maxillary molars or repositioning impacted teeth) several months after corticotomy.

When corticotomy is performed along with aligment treatment, the frequency of appliance changes every three to four days.

Alveolar corticotomy may easily be associated with skeletal anchorage devices. Temporary anchorage devices are used to increase anchorage, while corticotomies are used to reduce anchorage.

6. Proper patient selection for corticotomy is essential

Alveolar corticotomy is not for every patient, and it is not feasible to use it on a routine basis in clinical practice. The main indication is in clinical cases with complex OTMs. Open-flap surgery is indicated in impacted teeth, surgery-first procedures with extractions, orthognathic surgery with major postoperative

OTMs, complex space closures with reduced supporting tissue, and maxillary expansion in periodontally compromised cases. MOP is indicated in treatments with aligment, complex OTMs without periodontal problems and patients with financial limitations. One case treated with open-flap corticotomy and two cases treated with MOP will be shown to elucidate the concepts described in this article.

Case 1

A 19-year-old male patient with a Class III dental malocclusion with anterior midline discrepancy wanted to be treated only with aligments (Figs. 14a & b). Treatment was carried out with 71 aligments and two MOPs per-formed at the second month and at the fifth month of treatment, only on the premolar and molar maxillary dentition [Fig. 15]. Class III elastics were prescribed throughout the therapy. Treatment was completed in seven months with acceptable intercuspation in the buccal segments and correction of the midlines (Figs. 16a & b) and with good anchorage control in the lower arch [Fig. 17].

Case 2

A 23-year-old female patient with a Class II Division 1 dental malocclusion with a missing mandibular right first molar and mandibular anterior midline deviated toward the right presented for treatment (Figs. 18b–c). The treatment plan was to extract the maxillary first premolars and close the mandibular right mol lar space with minimum anchorage. MOPs were performed after insertion of the mandibular working wire (0.019 × 0.025 in., stainless steel; Figs. 19a–b). Nickel-titanium closed coil springs were applied right after the decortication (Fig. 20). Treatment was completed with good intercuspation, coincident midlines and all spaces well closed (Figs. 21a–c). Figures 21a to d show the dental panoramic tomograms and lateral cephalometric radiographs before and after treatment.

Case 3

A 30-year-old male patient, after two unsuccessful previous orthodontic treatments, with a Class II malocclusion with an anterior open bite, unilateral cross bite and generalised recession on the buccal aspects of maxillary teeth, presented for treatment (Figs. 22a & b). The ideal treatment would have included surgically assisted maxillary expansion, followed by combined orthodontic-orthognathic surgery. The patient refused this treatment, but accepted an alternative treatment with open-flap corticotomy extended from molar to molar and generous hard- and soft-tissue grafting (Figs. 24a & b). Treatment started a week after the surgery and continued with visits every two to three weeks. Once arch coordination had been slowly achieved with 0.019 × 0.025 in. stainless-steel archwires (Figs. 23a & b), followed by 0.021 × 0.025 in. stainless-steel archwires (Figs. 24a & b and 25a & b), the anterior open bite spontaneously closed (Figs. 24a & b). The CBCT images before and after treatment reveal the increased volume of the maxillary alveolar bone that allowed the successful expansion of the upper arch, despite the age of the patient and the initial periodontal problems (Figs. 23a & b).

Conclusion

Alveolar corticotomy (or periodontally facilitated orthodontics as we prefer) is an effective procedure in which alveolar deoption is associated with orthodontic treatment with the primary goal of enhancing OTM and reducing anchorage needs. By accelerating the rate of OTM and reducing the complexity of a clinical case, bone deoption may reduce treatment time. However, this effect is considered a side-effect and not the primary reason for using this periodontal surgery. According to the patient’s needs, it may be performed with an open-flap or a flapless procedure and may be associated with hard- and soft-tissue grafting. Further studies are still needed to evaluate indications, contra-indications and risks. The procedures described here will certainly evolve and improve with the improvement of the materials, devices and appliances utilised.

Editorial note: A list of references is available from the publisher.

This article was originally published in ortico international magazine of orthodontics issue 1.2018.

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Align Technology reaches 6 millionth Invisalign patient milestone with tween patient from China

By Align Technology Inc

Align Technology, Inc. (NASDAQ: ALGN) today announced that over 6 million patients have been treated with Invisalign - the most advanced clear aligner system in the world, including 1.4 million teenage patients*. This is a significant milestone for the company and the over 150,000 Invisalign-trained doctors worldwide, reflecting accelerating adoption of Invisalign treatment by adults and teens alike.

The 6 millionth Invisalign patient, Yuhe, is a 12-year-old student of the International School of Beijing, who began treatment in October 2018 using Invisalign Comprehensive with Mandibular Advancement treatment with Dr. Jiawei Wo from Yuzheyuan Dental clinic. Dr. Wo is a Gold Invisalign trained doctor based in Beijing, China who specializes in pediatric orthodontics.

Dr. Wo prescribed Invisalign clear aligner therapy to his patient Yuhe to address her class II type of teeth misalignment and because it fit well into her busy student lifestyle. "Invisalign treatment with Mandibular Advancement is great, because it moves the lower jaw forward, while simultaneously aligning the teeth. With Invisalign, my patients need much fewer appointments than with traditional orthodontic appliances. This allows them to continue their studies and daily activities without interruption," Dr. Wo said.

"We are delighted to be celebrating another significant milestone with Invisalign trained doctors and their patients. This achievement is a reflection of growing demand for Invisalign clear aligners from international markets, especially China, which is our second largest country market, nearly doubling each year since the Invisalign system was launched in China back in 2011. I would like to thank Dr. Jiawei Wo and all of the Invisalign trained doctors around the world for helping us make Invisalign treatment the clear aligner orthodontic method of choice among teens such as Yuhe, as well as for giving our patients a chance to have beautiful, straight teeth and smile with confidence," said Joe Hogan, Align Technology president and CEO.

"At Align Technology, we are thrilled to hear that the 6 millionth patient is a young patient like Yuhe. I would like to thank Dr. Wo for his confidence in treating Yuhe with the Invisalign system, and Yuhe’s parents for trusting that it is the best solution for their daughter."

In support of this major milestone for the company, Yuhe will be featured in an upcoming Invisalign global campaign, entitled “6 Million Invisalign Smiles” that will follow Yuhe and her family through her Invisalign treatment journey. The campaign will highlight key reasons why she and her parents decided to choose Invisalign clear aligners to help her achieve a new, beautiful smile.

For additional information about the Invisalign system or to find an Invisalign doctor in your area, please visit www.invisalign.com. For additional information about Itero digital scanning system, please visit www.itero.com.

Interview: “We will continue to commit to our clients the best orthodontic customer service experience in the industry...”

By Dental Tribune MEA

Dental Tribune MEA had a pleasure to speak with Dr Ramy El Zoghby, Regional Sales Director – Dealers EMEA at Ormco.

Dr. Ramy, congratulations on yet another successful year. The highlight of the year must have been the 3rd ORMCO Forum Dubai. How do you reflect on this unique event for the region Orthodontists?

I have to say that 2018 has been an exceptional year for Ormco in the region and the 3rd Ormco Forum in Dubai was the great highlight of this success through the whole EMEA region as a brand new and exceptional record of participation with more than 250 Orthodontists & 8 International speakers coming from more than 15 countries all over the world, sharing the latest research and clinical experiences using the most advanced techniques in Orthodontics and definitely our unique products.

How important is it for ORMCO to have such annual events and be close to your regional partners and clients?

Ormco partners are a crucial part of our success in the region. We do our maximum efforts to ensure the best customer service experiences to all our clients especially in terms of continuous products availability and on time delivery. Moreover, keeping our clients’ satisfaction at the highest level possible is one of our major goals within the whole Ormco organization.

What was the base for the choice of your scientific speakers and content for the event?

We tried to diversify the scientific content, and the speaker’s background taking the participants through an exciting journey during the three days. The delegates could discuss their concerns and find out all the new updates in conventional esthetic systems, self-ligating techniques and digital orthodontic which is our future blighting trend in Ormco.

The past year has been very dynamic, not only for ORMCO but also the dental industry. How do you manage to continue delivering top quality products, services and education to your client base, distributors and partners in the Middle East?

I agree with you that 2018 was one of the most challenging and dynamic years for the whole industry in the region; however, we successfully completed the year smoothly by continuing to focus on the best products we sell in Ormco globally. In terms of education, more than 25 international scientific courses were conducted successfully, keeping our clients updated with the latest techniques and products. It also makes our partner’s job easier to deliver Ormco’s message to the large, est number of clients in the shortest possible timeline.

In the year of IDS Cologne 2019, what can we expect from ORMCO and your Middle East partners?

We will continue to commit to our clients the best orthodontic customer service experience in the industry whilst continuing to focus more and more on educating orthodontics.

What are your plans for the region in the coming year?

This year, we have an ambitious plan to increase our educational courses by more than 20% in comparison to last year, strongly participating in the big regional orthodontic conferences (i.e.: Saudi Orthodontic Society meeting – 20% in Jeddah/ KSA). Moreover, we will be having our 2nd Ormco Forum in Saudi Arabia in November 2019 with more and more exciting speakers and topics.

After the success of the 2nd MENA Symposium in 2019, Ormco has recently launched their 3rd edition of the Dubai Forum, that took place in Palazzo Versace Hotel between the 6th-8th of December 2019.

This is considered the biggest Ormco scientific event EMEA region with more than 300 participants and 8 international speakers from around the globe. Not only International speakers but also international delegations from 15 different countries including Middle East, E. and East Europe, Russia and Africa all gathered to attend the big event as well as the launch of the 2 new products Damon Q2 and Symetri Clear and Invisalign’s new technologies in the world of digital Orthodontics.

Looking forward for more success in the next edition of the Ormco Forum.
Ormco Forum Dubai 2018 Impressions
06-08 December 2018 | Palazzo Versace | Dubai | UAE

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3M Oral Care Ortho Programme Highlights
Impressions from the 3M Oral Care Symposium orthodontic programme which took place in Abu Dhabi on 04-05 October 2018. Over 200 dentists and orthodontists attended.