Two Awards bring together Middle-East Dental Elite

Two of Dentistry’s most prestigious Awards in the Middle East region were held under one roof on 03 May 2013 in the Dubai Ballroom of the highest hotel in the world, JW Marriott Marquis Hotel in Dubai, UAE. The chic ‘Black Tie’ ceremony was a moment to remember as ‘The best clinical case Aesthetic Dentistry MENA Awards 2012’ and the public vote ‘I love my Dentist Awards 2012’ were presented to the winners.

Participants from UAE, KSA, Qatar, Oman, Kuwait, Bahrain, Syria, Lebanon, Iraq, Iran, Jordan, Egypt, Sudan, Pakistan, India, Turkey, Asia and others gathered together with the Dental Industry enjoying the beautiful ambiance and program organized by CAPPMEA. Dental Companies (Crest & Oral B, Dubai Medical Equipment, Nikon, 3M ESPE, Philips Sonicare, City Pharmacy, Sirona, Phibo, Megagem, High Technology Lab, Qualident, Vertex and Sherad) sponsored the winners as usual with special products, vouchers and services awarded to the winners.

Aesthetic Dentistry MENA Awards 2012

“The Aesthetic Dentistry MENA Awards is a unique competition in which dentists from over 14 countries in the Middle East and North Africa, including South Asia, compete with their professional treatment achievements.

These awards are the highlights of the work of the Dental profession in the Middle East and other countries and are the only ones that recognize the excellent achievements of Dental practitioners across the region.”

– Dr. Dobrina Mollova, MDS, Managing Director of CAPP.

Winners were selected from each of the following categories

- Conservative Aesthetic Best Case
- Prosthetic Restoration (fixed and removable) Best Case
- Implantology and Red-Aesthetic Best Case
- Orthodontic Best Case
- Congenital and Maxillo-Facial Deformities Best Case
- Multidisciplinary Best Case
- Dental Technician Best Case
- I Love My Dentist Awards

By Centre for Advanced Professional Practices

See FILLING, page 4
By Dental Tribune Middle East & Africa

Duba, UAE. The CAD/CAM & Digital Dentistry industry has been on the rise in interest of CAD/CAM solutions by dental professionals – who have found that the best way towards the future of dentistry is with both accuracy and efficiency. Over the years, CAD/CAM Conferences have had the privilege to be part of the platform of the steadily growing popularity and evolution of Middle Eastern Dentistry. This was, once again, the case at the 8th Edition of CAD/CAM and Digital Dentistry International Conference.

Following the outspoken success of seven conferences before, hosted in both the Middle East and the Asia Pacific, the 8th CAD/CAM and Digital Dentistry International Conference, held last 02-03 May 2013, at the JW Marriott Marquis Hotel in Dubai, UAE – was met with the familiar reaction of widely resounding applause and positivity as one of the regions premier conferences in Digital Dentistry.

Organized by Centre for Advanced Professional Practices (CAPP) together with the Emirates Dental Society (EDS), the Scientific Session featured 13 speakers from 9 countries as well as the return of the highly successful Dental Technicians Parallel Session with 5 speakers providing hours of educational learning experiences that left everyone with a truly memorable experience.

With a total of 37 companies present and over 65 brands being represented, the event continued to see the sponsorship from 9 of the major industry players: Simba, IvoIvar Vrijeven, 3M ESPE, Degudent/Dentsply, GlaxoSmithKline, Aman, Gürbav, VITA, Phib and MPC.

**Scientific Program – 1,000 participants from over 30 countries.**

Amongst the Key Opinion Leaders were Dr. Mark Morin, USA; Dr. Eduardo Mahn, Chile; Dr. Gary Severance, USA; Dr. Karsten Kamm & Joachim Meier, Germany; Dr. Ziad Salameh, Lebanon; Aliah Furah, Syria; Tobias Spech, Liechtenstein; Dr. Nicolas Boutin & Dr. Bernard Cannas, France; Dr. Philippe Tardieu; Dr. Francisco Barbosa, Spain; Dr. Hatem El-Dannanouhy, Egypt and Dr. Khaled Abouseada, Egypt. The Dental Technicians session featured Ralph Oppacker, Germany; Michel Divet, France; Rik Jacobs, The Netherlands, Abdo Salem, CDT, Lebanon; Zlot Keletar & Yemen Chaban, Germany. The Scientific Session was accredited by the American Dental Association through CAPP as a recognized provider of Continuing Education accepted by Saudi Commission for Health Specialist, Health Authority Abu Dhabi, Ministry of Health and Dubai Health Authority.

A total of 1,000 participants from over 30 countries, whether General Practitioners, Implantologists, Periodontists, Orthodontists, Endodontists, Prosthodontists, Cosmetic Dentists, Dental Assistants and Dental Technicians – all experienced the high level of the scientific programme while meeting the top industrial players in this field during the two day event in Dubai, UAE.

**Dental Technicians Parallel Session.**

Over 100 Dental Technicians from in and out of the region were educated at the innovative event providing the much needed extra attention to the importance of the Dental Technician as a vital part in every Dental Team. High Profile Networking Opportunities.

**Gala Dinner and Awards 2012.**

On the evening of 2nd May, Centre for Advanced Professional Practices, together with Emirates Dental Society, gathered the Dental elite from the Middle East to present the winners of the ‘I Love My Dentist Awards 2012’ – voted by their patients all over the world – and the ‘Aesthetic Dentistry MENA Awards 2012’. The Gala Dinner, sponsored by Crest & Oral B was highly anticipated and welcomed various VIP guests from the regions’ Ministries of Health, Dental Associations and Societies as well as the brilliant Dentists nominated for the awards.

**Singapore hosts 2nd Edition Asia-Pacific, CAD/CAM Digital Dentistry.**

The 2nd Asia-Pacific, CAD/CAM Digital Dentistry International Conference will take place on 04-05 October 2013 at the astonishing Marina Bay Sands Hotel in Singapore. The Scientific Program includes various Stars in Digital Dentistry such as Dr. Andreas Bindl, Switzerland; Dr. Lutz Büttner, Germany; Dr. Eduardo Mahn, Chile; Joachim Meier, MDT, Germany; Prof. Bernd van der Heyde, MDT, Germany; Wener Gotsch, MDT, Germany; Simon Docker, UK; Morten Ryde, Denmark; Dr. Kurt Darwis, Germany; Baris Cakan, Germany; Ilke Imerorait; Rik Jacobs, The Netherlands and Raphael Oppacher, Germany. The event is organized by CAPP Asia and proudly supported by the Singapore Dental Association.
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Ahmad Farah, CDT, Dental Laboratory, Syria
Mr. Nestor Dator, American Dental Laboratory, Dubai, UAE

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Virtual planning of extensive jaw reconstructions

By Dr. Dr. Ahmad Al-Dam, Dr. Dr. Henning Hansen, Dr. Clarissa Precht, Prof. Dr. Dr. Max Heiland

Surgery is still the essential component of curative therapy of malignant neoplasms of oral cavity. The resection with sufficient safety margins has an immediate impact on the prognosis. Therefore, a partial resection of the jaw is often required. In contrast to the upper jaw defects, which can be treated non-surgically with individual prosthetics and obturators, continuity defects of the lower jaw cause massive restrictions of swallowing, communication and the external appearance. Nowadays, extensive defects are covered in many cases using microsurgical grafts. The extension of the accompanying soft tissue deficit influences the selection of the donor region. The microvascular fibula graft has become the “working horse” in many departments all over the world, when it comes to reconstruction of the mandible, it can be transplanted with or without a skin island and separated in several segments. Advantages of this bone containing flap in particular are a reliable anatomy at the donor site with few variances of the supplying vessels, a large diameter of the pedicle vessels and a comparatively straightforward technique of flap raising. Alternative donor regions are the iliac crest and the scapula.

In our hands, we favour the primary reconstructions of the mandible. That means that the continuity - as well as the postoperative occlusion - is achieved with the in-sano resection using intraoperative frozen sections of the soft tissue margins and consecutive reconstructions in the same operative session, which can be ideally performed synchronously in two operation teams. Thus, strain for the patient thereby can be reduced and the adjuvant therapy can begin earlier. However, the exact recovery of the preauricular jaws relation, which is a prerequisite for establishing a satisfying occlusion, is difficult. Even with preoperatively customized osteosynthesis plates, the osseous graft must often be segmented after harvesting to simulate the curve of the mandible.

Nevertheless, the exact creation and positioning of the graft is of great importance for the rehabilitation of the facial symmetry and the masticatory function. Increasing the predictability of the surgical reconstruction outcome can be achieved using a new computer-aided, three-dimensional planning method. This planning enables us to implement precisely the virtually planned jaw resection and the creation of a suitable osseous graft with the help of CAD/CAM templates and an individual osteosynthesis plate. In this article, the technology used by us is described with the aid of an illustrative example in which the reconstruction of the mandible was performed using a CAD/CAM preplanned microsurgical fibula graft.

Process of the planning of complicated jaw-surgical interventions

The computer-based virtual planning of complicated surgical interventions in the face contains a planning phase, a production phase and the operation phase.

The planning phase begins with acquiring a defect-related, high-resolution, axial scan of the facial skeleton. This can be performed using a conventional CT or a cone-beam CT (thus minimizing of exposure to radiation). When malignant disease is present, the CT of the head and neck, which is necessary in respect of tumour staging, can be used for the planning. In addition, a high-resolution scan of the donor region is required - e.g. the lower leg - which should be combined with an angiography to exclude vessel anomalies. The received data are made anonymous and sent online to the processing company (Materialise [Leuven, Belgium]) via password-protected ftp server. The company then produces a virtual 3D model of both the defect (face) and the transplant donor site (fibula). Now with these data, a web meeting with the engineers of the company and the treating surgeons takes place. In this meeting the resection margins are defined, the segmentation of the bone transplant is discussed and the osteotomy lines are defined. Besides, the positioning of the vascular pedicle and the side of the microvascular vessel anastomosis in the neck will be defined. After the virtual resection of the jaw, the segmentation of the bone transplant is carried out and positioned virtually into the defect of the mandible. The clinical and angiographic findings and the defect size determine whether the graft is taken from the right or left lower leg. The planned resection and osteotomies of the bone transplant can be transferred from the virtual planning into the OR by the surgeon using prefabricated templates.

Now the production of the surgical resection templates for the facial bone and osteotomy templates for the bone transplant takes place. After the production procedure, a 3D stereolithographic model of the postoperative situation (after insertion of the fibula), templates for the osteotomies of the flap and for the tumor resection will be available in the OR. With the help of the 3D model, a 2.0 locking reconstruction plate is manufactured (Synthes, Oberdorf, Switzerland), which is precisely adapted to the postoperative, virtually planned situation.

Intraoperatively, the mandible is surgically exposed so that the resection templates can be positioned to allow performing
the planned resection. They create a well-defined osteotomies plane. Generally, harvesting of the bone flap (e.g. fibula) is carried out simultaneously through a second team. Harvesting the fibula is performed after exposing the bone in the conventional manner, then fixing the osteotomy templates in the bone with screws. The template as a surgical guide defines the osteotomies which can be performed exactly in the predefined plane. The individual reconstruction plate can be fixed to the fibula with the flap strip protruding on the leg which reduces the time of ischemia. After harvesting the microvascular fibula graft, the surgeon positions the transplant into the bony defect of the mandible. The microvascular anastomosis is then performed in the neck vessels. Postoperative 3D cone-beam imaging allows the fusion of pre- and postoperative data and is later used for the planning of the dental implants.

Case presentation

In August 2010, a 30-year-old female patient was admitted to our department with a 2 years disease-free period, the second step of the reconstruction was performed utilising the CAD/CAM planning technique. A CT-scan was acquired of the head and neck area as a re-staging diagnostic measure and to determine the current bone situation as a basis for the planning. In the planning session it was defined to use the left fibula and segment it into 5 segments to mimic the mandible arch. The operation was performed in two teams, the osteomicroscopic fibula flap was harvested and osteotomised according to the pre-surgical plan using the osteotomy templates, the pre-bent 2.0 reconstruction plate was fixated to the fibula before ligating the vessels and then the flap was transferred as the neo-mandible to the head of the patient and fixation was finished with screws to the bilateral ascending rami (Synthes, Oberdorf, Switzerland). The anastomosis was performed to the right facial vessels, the skin island was used to reconstruct the tissues of the floor of the mouth (Figure 1). After the operation, the patient was transferred to the immediate care unit and was then finally discharged from the hospital 10 days after surgery.

Following the reconstruction operation, some minor surgical procedures were carried out to optimise the appearance of the chin and realise the dental rehabilitation using implants. A removable denture was fabricated on an individual bar based on 6 implants (diameter of 4.1 mm and the length of 11.5 mm (BEGO Implant Systems, Bremen, Germany)) was fixed 9 months after the reconstruction procedure (Figure 2).

Conclusion

A good functional rehabilitation and aesthetic result after resection of extensive jaw defects are of great importance for the patient. The method of virtual planning of jaw resection and reconstruction, which is introduced here, leads reliably to predictable reconstruction results and simplifies the operation process considerably. We have applied this procedure since April 2011 up to now with 52 patients successfully and have established this as a routine workflow in our department.

References


Editorial Note: Full list of references is available from author.
Using in-office CAD/CAM technology and lithium disilicate to fabricate efficient and predictable restorations

By Author John C. Schwartz, DDS

In today’s fast-paced world, instant gratification is expected to be synonymous with worthwhile results. This applies to dental treatments. While there have been many recent technological innovations specifically for chairside restorations, dentists have faced complications when mastering complex and time-consuming protocols.

The E4D Dentist System’s three-dimensional software simplifies designing and milling multiple restorations. This provides dentists with more control over the esthetic process. The E4D in-office CAD/CAM system is equipped with a high-speed intraoral laser scanner for capturing digital impressions and models. The E4D Dentist System streamlines work for dentists, who gain the enhanced confidence of producing reliable restorations for every patient case. Meanwhile, patients receive the benefit of chair-side restorations.2,3

The preparations are cleaned and three drops each of Multilink A&B solution are mixed in a well. The Monobond Plus Primer was applied with a microbrush for 60 seconds. Ceramic Etching Gel is applied for 20 seconds, rinsed with water and dried. In preparation for salinitating using Monobond Plus primer.

Restorative designs are then sent to the E4D pre-cision milling unit, which incorporates dual spindles and diamond burs to efficiently form CAD materials into restorations that exhibit exceptional fit, maxo-mixed strength and lifelike aesthetics. In fact, restorations fabricated using CAD/CAM processing have demonstrated less chipping or fracturing, which enhances the predictability of the restoration.1

Among the materials that can be processed chair-side with the E4D Dentist System is lithium disilicate (IPS e.max® CAD, Ivoclar Vivadent), which is available for processing CAD/CAM restorations indicated for placement in the anterior and posterior. The material is also indicated for an assortment of dental procedures, including partial and full coverage inlays and onlays, thin veneers (0.5 mm) and implant superstructures. Lithium-disilicate glass ceramic trumps traditional ceramic materials because of its durability and high flexural strength values.

Case presentation

A 55-year-old woman presented requesting re-moval of the maxillary left bicuspid and molar crowns. Their unsightly margins and the gold restorations were visible in her smile (Figs. 1, 2), and the patient had grown weary of their unsettling and lackluster appearance. Her goal was to whiten her dull-looking teeth in order to reflect the brighter color of her natural anterior dentition.

In-office CAD/CAM restorations (IPS e.max CAD) were discussed with and agreed to by the patient. The optical qualities of IPS e.max CAD, which include a fairly low refractive index, optimal light transmission and lifelike translucency, would provide natural-appearing and highly esthetic restorations.2,3

The preparations are cleaned and three drops each of Multilink A&B solution are mixed in a well.
When milled from highly esthetic lithium-disilicate blocks (IPS e.max CAD), the restorations enable dentists to provide exceptional treatments tailored to the patient’s authentic esthetic characteristics.

References

Preparation and digital impression taking

The existing crown restorations were removed and the teeth were prepared for IPS e max CAD crowns. Preparations included a 2 mm occlusal re-duction and a 1–1.2 mm shoulder margin. A scan was performed of the patient’s arch and prepared teeth, and the margins were identified (Fig. 3).

Digital restoration creation

The autogenesis feature in the E4D Dentadent intuitive software was used in conjunction with E4D CAD proposals (Fig. 4), which incorporated images of the buccal and occlusal aspects (Fig. 5, 6) and contact intensity (Fig. 7).

The preparations were designed and then sent to the E4D milling unit, where lithium-disilicate high-translucent (HT) blocks (IPS e max) were milled. After completion, the monophasic-cast crowns were first tried in the patient’s mouth to appraise fit, contour and anatomical harmony, then crystallized.

Customization

The restorations were removed from the furnace, then cleaned and dried. To fulfill the patient’s desired goal of having a more natural colored smile, the restorations were appropriately stained and glazed. The ideal shade stain was placed on the tip of a hygienic brush and applied to the restorations.

Once staining was complete, the crowns were fully crystallized and fired. The case was ready for seating using universal cement (Multilink, Ivoclar Vivadent). Gel. The Ceramic Etching Gel was applied for 20 seconds, rinsed with water, dried in preparation for sila-nating using the Monobond Plus Primer (Fig. 9). The Monobond Plus Primer was applied with a microbrush for 60 seconds to the internal surfaces of the restorations to ensure a sound bond between the restorations and cement, as well as increase bond strength surfaces of the restorations to ensure a microbrush for 60 seconds to the internal areas of the restorations to ensure a sound bond between the restorations and cement, as well as increase bond strength.

Conclusion

The combination of lithium-disilicate blocks (IPS e.max CAD) and the E4D Dentist System is a state-of-the-art material and technology so-lution that enhances the predictability, esthetics and ease-of-use of in-office CAD/CAM procedures. Restorations completed with this complementary combination demonstrate excellent fit, function and esthetics (Figs. 15, 16). As a result, dentists can provide progressive, one-day treatments to patients, eliminating more invasive and time-consuming procedures that can require multiple appointments.

By incorporating the essential components of design and accuracy, the E4D Dentist System helps to ensure the accuracy and predictabil-ity of resulting restorations.
What would happen if your Dental Clinic is Connected?

**CEREC** CONNECT by Sirona. Connecting with your Lab wherever they are

By Sirona

**Middle East Prelaunch**

DS Cologne 2013 will be remembered for many new innovations in the Dental Industry. One in particular stands out with Sirona, The Dental Company announcing the latest state-of-the-art creation – CEREC® CONNECT. The new unit keeps you connected with all your labs digitally at any time anywhere in the world. As expected, during the 8th CAD/CAM & Digital Dentistry International Conference organized by Centre for Advanced Professional Practices (CAPP) in Dubai last May, Sirona pre-launched CEREC® CONNECT in front of 1000 dental participants attending the event which underlined the importance of CAD/CAM & Digital Dentistry in the Middle East region.

**CEREC® CONNECT**

Connect to the world’s largest digital dental network.

**CEREC® CONNECT** by Sirona is the world’s largest digital dental network, giving CEREC dentists access to thousands of lab owners and technicians throughout the country via a web-based portal. Only Sirona, the world leader in CAD/CAM systems, and pioneer in digital impressions, extends such convenience to you. The company’s web-based platform is designed exclusively for Sirona CAD/CAM users (i.e., inLab® and CEREC), allowing you to experience the easier way to receive digital impressions, exchange information, and work with highly-esthetic anteriors and posteriors.

Connect to convenience:

- Save time and money — the digital impression generated saves time and reduces your labor costs. Plus there’s no additional fee to join the network or upload digital impression files.
- Increase patient comfort — more comfortable for the patient than conventional impressions.
- Superior precision — the CEREC camera produces the most precise and fastest digital impressions. Immune to dimensional changes, CEREC digital impressions result in superior precision, a prerequisite for sustained quality.
- Direct feedback from the dental technician enables both parties to discuss the case over the phone, while your patient is still at your side! Making final adjustments was never so easy.

**How does it work?**

You can use the CEREC® CONNECT software in combination with the CEREC® CONNECT Internet Portal and CEREC® CONNECT to create digital impressions and to send them to your partner laboratory via the portal. Any type of restoration can be manufactured from your impressions there. Your laboratory can then decide whether to produce the restorations directly from your digital impression or, if necessary, whether to order a physical model from infiniDent to perform the work. Models are always required when you order a veneer crown or a veneer bridge from your laboratory (e.g. made of zirconia or VMK etc.

**Cooperation**

Sirona Middle East in cooperation with their dealer in Kuwait – Yiaco Medical Company have established the first setup of CEREC® CONNECT in Kuwait with 20 units with cerec omnicam connect servicing both the public and private sector. In Dubai, UAE the first set up will be launched beginning October by Diadem Lab – Healthcare City with cooperation of Sirona Dental Systems setting a new era of digital impression connection in the region. Following up on this prestigious achievement, we will be focusing in more details in the upcoming publications of Dental Tribune Middle East.

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The locator with cercon bar attachment delivers a low attachment profile and super retention with a self-aligning design.

Locator over cercon bar attachment delivers a low attachment profile and super retention with a self-aligning design.

During seating, while the locator male pivots inside the denture cap, the systems self-aligning design centers the male on the attachment before engaging. This allows the locator to self-align into place. Once seated, the male remains in static contact with the attachment, while the denture cap which is processed into the overdentures enables a full range of rotational movement over the male for a resilient connection of the prosthesis.

A case for Dr. Abi Naders’ patient was customized by Qualident dental laboratory and showed high satisfactory manners for the patient as well as provided a beautiful appearance instead of the traditional titanium bar. On the other hands, gave a ease and passive fit to the doctor, with better occlusion distribution over the implants.

In Qualident Dental Laboratory, we are always striving to the satisfaction of our dentists and their patients.

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Locator over cercon bar
By Qualident

The use of overdenture with locators has become an integral part of prosthetic treatment. An overdenture provides improved chewing efficiency, esthetic, phonetics and comfort for the patients who otherwise are not able to adapt to dentures lower partial or complete dentures.

The locator with cercon bar attachment delivers a low attachment profile and super retention with a self-aligning design.

Locator over cercon bar attachment is designed to offer ease of insertion and removal, customizable levels of retention, low vertical profile, and exceptional durability. Its central design feature is its ability to pivot, which increases the resiliency and tolerance for the high mastication forces.

During seating, while the locator male pivots inside the denture cap, the systems self-aligning design centers the male on the attachment before engaging. This allows the locator to self-align into place. Once seated, the male remains in static contact with the attachment, while the denture cap which is processed into the overdentures enables a full range of rotational movement over the male for a resilient connection of the prosthesis.

A case for Dr. Abi Naders’ patient was customized by Qualident dental laboratory and showed high satisfactory manners for the patient as well as provided a beautiful appearance instead of the traditional titanium bar. On the other hands, gave a ease and passive fit to the doctor, with better occlusion distribution over the implants.

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BioHorizons Global Symposium 2013 Spotlights Solutions to Dental Implant Controversies

By Bio Horizons

Birmingham, ALA. (Business wire) -- The 2013 BioHorizons Global Symposium brought together over 1,400 dental professionals from 55 countries to the prestigious Fontainebleau Hotel in Miami, Florida. Thirty-eight clinicians presented throughout a three day program on April 25-27 that featured concurrent surgical and restorative tracks, hands-on training and faculty-moderated discussion panels. The program was led by internationally-recognized opinion leaders who addressed a range of topics including immediate placement and loading, implant complications, treatment planning and tissue regeneration. Pre-symposium courses included topic-specific breakout sessions and a dedicated Spanish language Symposium by key thought leaders from throughout Latin America. "This is the most impressive, educational implant forum I have ever attended," said Dr. Daniel Spagnoli, Chair of Oral & Maxillofacial Surgery, LSU School of Dentistry.

R. Steven Boggan, President and CEO of BioHorizons, stated "This was the most comprehensive agenda in our history. The Global Symposium incorporated research and practical perspectives from top clinicians around the world. They described the latest technologies and techniques for resolving challenging issues within implant dentistry. With technology evolving so rapidly, it’s important that clinicians base their decisions on evidence-based solutions, not industry rhetoric. The Global Symposium met that important need based on the overwhelmingly positive feedback from all of the attendees."

"Given the tremendous response, we will continue to offer these much needed programs to dental clinicians," said Greg Bryant, Director of Continuing Education. "The next three stops in our International Symposium Series have already been scheduled for Mumbai, India (2013), Dubai (2014) and Los Angeles (2015)."

About BioHorizons
BioHorizons is a leader in advanced dental implant technologies and tissue regeneration products in the dental implant industry. The company, based in Birmingham, Alabama, offers a broad spectrum of products for the replacement of missing teeth including dental implants, restorative and laboratory components, soft and hard tissue biologic products, and surgical planning software. BioHorizons unique dental implant designs are recognized for intuitive design, excellent primary stability, and high-end, esthetic outcomes through the use of BioHorizons proprietary Laser-Lok® microchannel surface technology. With 25 years of research and 35 published studies or articles, Laser-Lok has been shown to uniquely achieve both bone and soft tissue attachment for long term crestal bone maintenance. The BioHorizons portfolio is offered in 85 markets around the world.

For more information, visit biohorizons.com

BioHorizons Global Symposium 2013 Faculty

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<thead>
<tr>
<th>Dr. Edward P. Allen</th>
<th>Dr. Tomas Linkevicius</th>
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<tr>
<td>Dr. Orlando Alvarez</td>
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<td>Dr. Maurice Salama</td>
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<td>Dr. Arturo Bilbao</td>
<td>Dr. Brahm Miller</td>
<td>Dr. Guido Samachiaro</td>
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<tr>
<td>Dr. Lyndon Cooper</td>
<td>Dr. Carl Misch</td>
<td>Dr. Hamid Shahe</td>
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<td>Dr. Lewis Cummings</td>
<td>Dr. Craig Misch</td>
<td>Dr. Cary Shapoff</td>
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<td>Dr. Abdelsalam Elaskary</td>
<td>Dr. Justin Moody</td>
<td>Dr. Daniel Spagnoli</td>
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<td>Dr. David Garber</td>
<td>Dr. Rodrigo Neiva</td>
<td>Dr. Marius Steigmann</td>
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<td>Dr. Pedro Gazzotti</td>
<td>Dr. Myron Nevins</td>
<td>Dr. Miguel Trotano</td>
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<td>Dr. Nico Geurs</td>
<td>Dr. Arthur Novaes</td>
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<td>Dr. Gerhard Iglhaut</td>
<td>Dr. Michael Pikos</td>
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<td>Dr. Julian Jaramillo</td>
<td>Dr. Jay Reznick</td>
<td>Dr. Hom-Lay Wang</td>
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<td>Dr. Bach Le</td>
<td>Dr. Jack Ricci</td>
<td>Dr. Natalie Wong</td>
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<tr>
<td>Dr. Sonia Lezy</td>
<td>Dr. Alain Romanos</td>
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Greg Bryant, 205-986-7894 (USA)
Director, Communication & Education

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Our mission: We make more than great art to your patients smile

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- In ceram work
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Mumbai, India

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Bach Le
Jack Ricci
Alain Romanos

REGISTRATION
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Interview: “The 7th International Congress of LDA North Lebanon” 30 May – 1 June 2013 Las Salinas Resort, Tripoli

By Dental Tribune Middle East & Africa

Under the patronage of President Michel Sleiman, the capital of North Lebanon gathered for the 7th time Scientists, Researchers, Teachers, Clinicians and Junior Dental Students from all around the world to highlight and reveal the advanced studies and technologies applied in the Dental field to reach a tremendous success.

With an excellent ambiance and cozy atmosphere the conference provided the participants and the visitors by the expertise of 38 lecturers and an introduction to the latest and most modern medical and dental equipments as well as a special designed session for dental laboratory specialists newly added this year.

“My recommendations for the freshly graduates and Dentists are to maintain their scientific and professional level, to provide the best treatments to their patients, and we as a Dental order, our duty is to resolve any disputes that might happen between dentists and patients under applicable Lebanese law.”

How do you evaluate the development of the dental order in Lebanon?

The performance of the Dental order is improving daily and this will appear in the near future, but the operation of our Dental order is passing into difficulties as a reflection of the political and security situation in our region.

Tell us about the challenges facing the dental order today? What is your plan to solve it?

Being part of the Lebanese community, we are directly affected by the same challenges that affect every person in Lebanon, and we look forward to make our dental order stronger and hopefully we can reach the goals that all our participant’s work for.

Since the first moment this new board council was elected, this board worked around the clock to share with the three presidents in Lebanon his concerns about the dental challenges and was promised by all support needed.

Concerning the projects that we are working to achieve, they are many summarized as:

• To introduce the preventive medicine until the age of 12 years in the health insurance.
• To implement health insurance through all Dentists.
• To achieve a continuing education program by which the scientific level of dentists will increase and that secures for patients and their families the best treatments.

What are your recommendations to the freshly graduates Dentists?

My recommendations for the freshly graduates and Dentists are to maintain their scientific and professional level, to provide the best treatments to their patients, and we as a Dental order, our duty is to resolve any disputes that might happen between dentists and patients under applicable Lebanese law.

What were the Dental order achievements recorded up to date?

A lot of hard work has been done so far and we are working now to achieve a project that will feed the retirement plan account by submitting some Dental medical products to a tax. The dental order headquarters will be equipped by a new X-ray unit that will procure monetary income to the order retirement plan account as well.

What can you tell us about the 7th International Congress?

Inspite the fact that the congress was happening in an exceptional insecure situation in Lebanon and the area, we were able to host a remarkable international and domestic participants. The scientific program was rich and high lightning on all news and updates in our Dental Field. And we had already started preparing for our next congress that will take place 2014.

Would like to share more topics with Dental tribute readers?

I thank you for giving me the opportunity to highlight on our Dental order achievements and congress and you are most welcome to visit and attend our future activities.

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Université Antonine

The Université Antonine gathered in Lebanon, the experts of Dental Laboratory Technologists on 14-15 June 2013 at the University Campus.

The International Conference attracted the Dental and Dental Lab Industry. With an excellent ambiance the conference provided all participants a great opportunity of networking while connecting the newest and latest technologies to Dental Technicians, Dentists and Industry players while updating them with the latest scientific developments.

Université Antonine provided an excellent ambiance and enjoyed a high number of attendees.

The two Scientific days allowed the participants to build their skills and use the opportunity for sharing experiences in the application of technology.

The event welcomed the following sponsors - Richa Dental Store, Elie Mina Dental, Tamer Holding, Dentaltech, Pharmasol, Interbos, Prodent, Toff Dental, Zirkonzahn Lebanon, Karam Dental, Hedhem Dental Care, Moon Dental who all supported the conference.

The strong Scientific Program was very well attended and all part takers had a wonderful time during the two days event at Antonine University Campus.

Dental Tribune Middle East had the pleasure of being The official Media Partner.
3rd Iraqi Dental Reunion at Medicare 2013

By Dental Tribune Middle East & Africa

The 3rd Iraq Medicare was held in collaboration with the Federal Ministry of Health in Baghdad and the Ministry of Health in Kurdistan as well as KIMADIA division. The event was inaugurated by Mr. Salah Shobar, the adviser of the Ministry of Health in Baghdad, His Excellency Minister of Health in Kurdistan Dr. Rekawt Hama Rashid and the Erbil Governor Mr. Nawzad Hadi. The 3rd Iraq Medicare is an annual meeting place for Medical, Pharmaceutical and Healthcare to serve the growing health market in promoting the primary healthcare to Iraqi citizens.

IRAQ Medicare 2013

<table>
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<tr>
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</table>

This year The 3rd Iraqi Dental Reunion 2013 (IDR), organized by IFP Iraq, the Kurdish Dental Association together with Centre for Advanced Professional Practices, was held as part of the Medicare event which attracted a great number of Dentists, Dental Technicians, Dental Professionals and Dental Industry. The huge success of the 3rd IDR shows the great hunger for knowledge the Dental Industry enjoys in the region with all workshops and lecture rooms being full throughout the event. We look forward to welcoming even more participants in 2014. The successful organization could not have been done without the help of Dr. Kameran Kau, Dr. Mohammed Zandi, Ibrahim Serhal and Dr. Dobrina Mollova.

IRAQ Dental Reunion 2013

<table>
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<tr>
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</table>

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Going “eau natural”

The healthy living industry has blossomed into a fashionable, must-have trend in the 21st century. Going green, natural, or eco-friendly, however you refer to it, the so-called “organic” buzz runs through everything we eat, see and touch; from the food we eat to the clothes we wear. Even the cars we drive have transformed from “gas guzzlers” to cool, cost-efficient, environmentally-friendly “hybrids”.

From the moment we wake up in the morning to when we retire to bed at night, many of us constantly use products that are fragranced, floridated, flavoured and contain refined sugars or artificial colourings; and exposed to hundreds of household chemicals.

However, society has become more aware of the potential damage the consistent use of such products can cause their bodies and are consequently more educated on that beyond the attractive packaging. Over recent years, this awareness has exponentially increased and in the past decade, sales of organic foods have grown almost 20 percent annually and nearly two-thirds of Americans bought organic foods and beverages in 2005 despite higher costs (1).

This booming, billion-dollar, healthy living industry has blossomed into a fashionable, fashionable than it is today. If patients enquire about what natural oral health care products are available, suggest they look at the ingredients to understand the effects they’re having on their health. In doing so, patients can be certain that they choose products that offer a natural solution without compromising on effectiveness.

References


Contact Information

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Radiographic Examination for the Pregnant Dental Patient

By Alexandre Khairallah BDS, PGD, DESS, FEADMFR

Dental radiography is a controversial area in the management of the pregnant patient. In pamphlets widely supported by most dental professional radiographic associations, no alteration of recommendation was given for prescribing radiographs to a pregnant patient, as the amount of radiation given during standard dental radiographic examination is so trivial that it could not cause gross anatomic malformations in the developing fetus.

The American Dental Association (ADA) recommends every precaution should be taken to minimize radiation exposure to the pregnant patient. Yet, in a questionnaire study of 552 dentists, almost all use pregnancy as a contraindication for bitewing radiographies, thus showing the need for clinician education using evidence-based dentistry.

Effects of radiation exposure during prenatal development

To understand the effects of ionizing radiation on the unborn child, it is important to understand the units of radiation measurement:

1. Exposure: The measure of radiation imparted by any type of ionizing radiation to a mass of any type of matter. Its SI (Système International) unit is Gray [Gy], where one Gy = 1 joule/kg. Its traditional unit (radiation should used) is rads. 1 Gy = 100 rads.

2. Equivalent Dose: Used to compare the biologic effects of different types of radiation to a tissue or organ. Its unit is the Sievert [Sv]. For diagnostic x-ray purposes, 1 Sv = 1 Gy. The traditional unit is rem (radiation equivalent man). 1Sv = 100 rem.

3. Effective Dose: Used to estimate risk in humans. Its unit is Svert [Sv].

The amount of radiation in standard dental radiographic examination as compared to natural radiation

- The universe and our industrialized world give off a certain amount of radiation per day (the average effective dose for a member of the US population is 8 mSv a year).
- If the amount of radiation in standard plain film radiographic examinations were to be compared to the radiation that an individual receives from natural and artificial sources every day, it would negligible.

The effects of a dental radiograph on the unborn child

- The risk to the fetus from a few Gy of radiation exposure arising from a dental radiographic procedure is extremely small.
- The cancer risk to the unborn child resulting from a 0.01 mSv dose is several thousand times less than the background risk of childhood cancer.
- The risk of inducing a genetic abnormality is an even smaller fraction of the background risk of genetic disorder.

The effects of high doses of radiation on the unborn child

The adverse effects that may occur to the fetus of an expectant mother irradiated with high doses of radiation depend upon the stage of gestation and the dose of the ionizing radiation given. The most vulnerable time is during the first trimester:

- During implantation of the fertilized ovum: If a dose of 0.2 Gy or higher is given, death of the embryo may occur.
- Between 8-15 weeks (fetogenesis): this is a period of high radiosensitivity for the developing central nervous system. Research has shown that a dosage of 1 Gy during this period will result in retardation of 50% of fetuses studied.
- The fetal dose from a dental x-ray examination has been estimated to be between 0.3 mSv and 1.5mSv.

Precautions to be taken when subjecting a pregnant patient to radiation

1. Information on possible pregnancy should be obtained from the patient. A female of reproductive capacity should be considered pregnant unless proven otherwise.
2. If the patient is pregnant the possibility of obtaining information from a non-radiological investigation should be considered.
3. If the radiological examination is considered essential it should be performed and due consideration should be given to optimisation.
4. Observation of the "Ten-Day Rule": Any woman of childbearing age to be subjected to diagnostic x-ray examination that may reach the abdominal or pelvic areas should be exposed only during the first ten days after menstruation.
5. Because of the widespread "fear" of radiation induced damage to the unborn child, it is reasonable to counsel the woman on level of radiation exposure and associated risks prior to performing the procedure.
6. The maxillary occlusal view or any other view that requires the x-ray beam passing down into the abdominal area should be avoided if proper shielding cannot be provided.
7. Elective radiographs should be avoided.
8. For emergency treatment, necessary radiographs should be limited to the areas in question.
9. Try to minimize errors and retakes.
10. Use of Ortho-speed or Ekta plus speed film if using analog radiography: the faster the film, the less radiation exposure to the patient.
11. Switching to digital radiography (decreases the dose about 47% for full mouth series, and about 17% for panoramics).
12. Use of thyroid shields.
13. Use of lead aprons to cover the abdominal and pelvic areas.
14. Maintain high beam energy to deliver a high quality diagnostic x-ray beam in the shortest possible time.
15. Use of a long rectangular cone for collimation.
16. Lower mA setting on CBCT to decrease dose.
17. Limitation of the field of view (FOV) on CBCT as indicated to give the necessary information for treatment planning without exposing unnecessary structures (example: narrowing the FOV for the open scan for TMJ) to include just the TMJ-structures, or limited maxillary or mandibular views for implant treatment planning.

As can be noted, most of these recommendations are an application of the ALARA rule and are the same precautions that should be taken for any patient imaged radiographically. The first five precautions are specific to the pregnant or possibly pregnant patient to avoid exposure of the abdomen, with the next two the most negligent amount of radiation. Radiologic examinations should be performed only when necessary and, as with any drug or intervention in pregnancy - the dose used for the examination should be kept as low as reasonably achievable.

Conclusion

The estimated fetal doses from typical radiographic examinations lend support to the conclusion that fetal risks are minimal and, therefore, radiologic examinations that may provide significant diagnostic information should not be withheld from pregnant women.

This is the position advocated by the International Commission on Radiation Protection, American College of Radiology, and American College of Obstetrics and Gynecology. Nonetheless, any potentially harmful factors that may affect the unborn child should be avoided, especially during the first trimester, and the As Low As Reasonably Achievable (ALARA) concept should be used as with all other patients.

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By FKG

B ringing business closer to its customers in the Middle East, FKG Dentaire announces today the grand opening in Dubai, United Arab Emirates, of its Middle East and Africa office, as well as a new FKG Dentaire Training Centre.

This new training centre will be supplied with advanced FKG Dentaire endo training material, such as endodontic sequences, microscopes and our latest product edition the FKG ROOTER: the only wireless motor with LED light, constant speed and perfect torque control.

The new office and training centre emphasizes the Management’s commitment to be closer to their customers who trust FKG Dentaire to deliver high quality products and the latest technologies in Swiss Made endodontic instruments.

This centre is also another step forward in promoting the Race range of instruments in the region and a further milestone towards FKG Dentaire’s continued growth and success.

These facilities will be used for events such as public courses, seminars, workshops and users groups and distributors meetings.

Founded in 1931, FKG Dentaire SA is today at the very cutting edge of development, production and distribution of dental products for dentists, endodontists and laboratories. Precision has always been central to FKG, and the company naturally made its base in «Watch Valley», home to most Swiss watchmaking and microtechnical companies.

FKG was given a new lease of life in 1994, when Jean-Claude Rouiller took up the reins. A CEO with a vision, he set out a strategy based on innovative products and the concept of machinery specially manufactured for the dental industry. Mr Rouiller also enlarged the distribution network to encompass more than 80 countries worldwide. FKG products are certified according to international norms and standards.

The Swiss Venture Club named FKG «Western Switzerland Company of the Year 2012», a reward for the company’s dynamism, high product quality, and its continuing innovation.

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T + 41 32 924 22 44
info@fkg.ch | www.fkg.ch

“Western Switzerland Company of the Year 2012”
Class II, Division 2 Subdivision Malocclusion: Diagnosis, Treatment and Retention

By Authors Jon Ārtūn, DDS, Dr Odont | Erum Aurangzeh, DDS, MSD**
*Professor & Orthodontic Program Director European University College | **Resident Orthodontist European University College

Dental Tribune Middle East & Africa Edition | May - June 2013

By Jon Ārtūn

T he patient presented as a healthy almost 13-year-old female of mixed Tunisian & German heritage with a history of no significant medical problems. Her oral hygiene was good and her dental health excellent. Her chief concerns were for the irregularity of the maxillary incisors and the deep bite.

Diagnostic summary

Extraoral evaluation revealed a well-balanced face with competent lips, prominent nose and chin, and slightly increased mento-labial fold. The lips were retrusive relative to Ricketts’ E-line, but nicely curved and well-related to each other (Fig. 1B). A slight gingival display was evident on the maxillary right central incisor on full smile (Fig. 1C) due to uneven gingival margins on the central incisors (Fig. 1J) with upper midline coinciding with the facial midline (Fig. 1A).

Model analysis showed almost full Class II molar and canine relationships on the right side (Fig. 1E & 1G) and almost perfect Class I relationships on the left side (Fig. 1G), with the lower midline deviated 2.0 mm to the right of the upper midline (Fig. 1J). The overbite was 8.0 mm without signs of palatal impingement, while overjet was only 3.0 mm due to the retruded maxillary central incisors (Fig. 1E&G). No space deficiency was observed in either arch (Fig. 1H&I).

Cephalometric evaluation indicated a slightly increased ANB angle, a low mandibular plane angle, retroclined maxillary incisors (relative to SN), and retruded (relative to A-Pg line) but normally inclined (relative to MP) mandibular incisors and increased intratubial angle (Fig. 1D)

Radiographic examination revealed normal morphology without signs of pathology and presence of all 3rd molar buds (Fig. 1F).

Occlusal classification

Edward H. Angle played a major role in developing a concept of occlusion in the natural dentition. His postulate was that the mesiobuccal cusps of the maxillary molars should occlude in the buccal groove of the mandibular molars. Given that molar relationship, and that the teeth in each arch are arranged on a smoothly curving line – defined by Angle as the “line of occlusion” – the occlusion would be normal. That brilliant simplification made more than a 100 years ago has been proven correct, provided no aberrations in size and shape of the teeth, and his definitions of Class I, II and III malocclusions established the basis for orthodontic terminology. He further delineated his classifications by dividing them into divisions (according to maxillary incisor inclination) and subdivisions (according to specific types of asymmetric molar relationship). I I I has since the turn of the 20th century been customary for orthodontists to follow Angle’s teaching when classifying malocclusions. He states on page 40 of his original publication that “In the subdivision of the First Division one of the lateral halves only is in distal occlusion, the relation of the other lateral half of the lower arch being normal”. Although he clearly states that a subdivision is the occurrence of a unilateral malocclusion, with one normal and one abnormal side, he neglects to specify whether the subdivision is the normal or the abnormal side. Despite this, 34 surveys returned from a total of 54 submitted to orthodontic department chairs in the US showed that 22 taught their residents that subdivision refers to the Class II side while eight taught that it refers to the Class I side, and that three taught neither meaning.2 One chair responded that despite supporting the Class II side definition, several faculty members in the department disagreed.2 Before the controversy is resolved, Angle’s original definition should be followed, classifying the present malocclusion as Angle Class II, Division 2 subdivision, I not as Class II, Division 2 subdivision right, and not as Class II, Division 2 subdivision left.

Treatment objectives

Our objectives were to level and align the dental arches, to establish bilateral Class I canine relationships with ideal intercuspation and normal overjet and overbite, and to place the dentition in positions conducive to optimal esthetics and minimal need for long-term retention.

Treatment alternatives

In Class I and Class II malocclusions the extraction decision is typically based on the mandibular dentition, and made according to a combined evaluation of arch length deficiency and incisor position. One reason is that the option of perimeter gain through distal molar movement is very limited in the mandible. Another is that lateral expansion in the absence of transverse discrepancies is likely to represent a significant relapse liability, as clearly demonstrated already in 1944 by Tweed when conducting a follow-up examination of non-extraction patients treated according to the expansion philosophy of the time.3 The relatively recent introduction of self-ligating brackets, incorrectly referred to by some as friction free despite the fact that they generate the same friction as any conventional bracket,4 combined with super-elastic arch wires with broad arch forms, has had the unfortunate effect of revitalizing the un-biologic concept of bimaxillary expansion for correction of arch length deficiency.

Subdivision cases with midline discrepancy expressed as a deviation of the mandibular molar relative to the facial midline is typically treated with extraction of one mandibular premolar on the Class I side, allowing midline correction concomitant with canine retraction to a Class II relationship. Extraction of two maxillary premolars will allow finishing to bilateral Class I canine relationships with coinciding facial and dental midlines.

In this patient the relative midline discrepancy was considerably smaller (Fig. 1I) than the molar and canine asymmetry (Fig. 1E&G) due to the expression of the malalignment in the maxillary anterior segment (Fig. 1H). Since the need for mandibular molar correction was considered minimal, we decided not to perform any premolar extractions in the mandibular arch. As opposed to the mandibular, several mechanical alternatives are available for distalization of the posterior segments in the maxilla. We therefore agreed on a non-extraction approach also in the maxillary arch.

Treatment progress

Treatment was initiated with unilateral cervical headgear, adjusted with a long outer bow on the Class II side. The patient was compliant and used the appliance for 12 hours/day. Class I molar relationship was established on the right side after about four months (Fig. 2C), with a super Class I relationship on the left side. Two months later bands were placed on the lower first molars and multi-bonded appliances with MBT prescription and 0.022" bracket slots were bonded to all premolars, incisors and canines (Fig. 2&F, Fig. 3C&D). An anterior bite plate was delivered to prevent shearing off the mandibular incisor brackets (Fig. 2&F, Fig. 3D). This approach was preferred over bite raisers on the occlusal surfaces of the molars to facilitate evaluation of the leveling progress and to take advantage of any molar extrusion and incisor intrusion. After four months of leveling, initially with 0.016" nitinol wires until rotations were corrected, followed by 0.016" and 0.020" SS wires with customized arch forms to insure minimal expansion of the lateral segments, 0.019" × 0.025" SS wires were placed. Elastic chains were used to close any interdental spaces, while Class II elastics were used on the right side to establish perfect intercuspidation and coinciding midlines. Minibands were bonded to the mesiobuccal cusps of the mandibular second molars after 18 months (Fig. 2G,
Fig.3,F) to allow perfect alignment and slight intrusion, aiming at facilitating ideal "stabilized" molar relationships. The fixed appliances were removed after 23 months.

Cephalometric evaluation indicated ideal incisor positions and inclinations, with appropriate interincisal angle. Radiographic examination revealed adequate maxillary parallelism and potential for 3rd molar eruption.

Retention

Follow-up evaluations demonstrate that the average orthodontic patient demonstrates relative alignment in the mandibular anterior segment long-term post-retention, with extreme responses ranging from 0 to almost 10 mm, regardless of initial irregularity and extraction approach, and despite excellent occlusal results with aims at avoiding undue expansion. About 50% of this variation can be explained by post-retention reduction in the incisal distance. A proven approach to maintain the mandibular incisor alignment is to adapt a thin wire of size about 0.019" passively to the lingual surfaces of the mandibular anterior teeth, and to bond it only to the canines and pre-molars. Follow-up examinations demonstrate no risk of caries and periodontal disease associated with such retainers, despite a tendency for calculus build-up along the wire, and hardly any risk of distortion of the bonded segment. Another commonly used approach is to bond a flexible spiral wire of size about 0.019" to all six mandibular anterior teeth.9,10 However, although the reason is not fully understood, distorsion of the bonded segment may be uncommon following long-term use of such retainers.10 In addition, individual bond failures may go unnoticed. Malalignment of the mandibular posterior teeth is rarely observed provided the pretreatment arch form is maintained. For this reason, the need for mandibular retention was limited to the anterior segment in this patient, and the strategy selected was to bond a thin spiral wire only to the canines (Fig. 4.1).

Long-term follow-up examinations have demonstrated that the intercuspation is established of perfect Class I canine relationships, an acceptable intercincial angle, and maintenance of incisor contact through long-term use of a bonded canine-to-canine retainer in the mandible (Fig. 5). For those reasons, particular retention strategies in the maxilla, such as use of an anterior bite plate, were not advised for the present patient. Instead, a routine retention strategy with a vacuum formed retainer for full time wear the first six months and a gradual reduction in wear during the following year and a half was elected.

Conclusions

Adolescent patients with Angle Class II, division 2 subdivision malocclusion associated with minimal arch length deficiency in the mandible can be treated successfully with a non-extraction approach using a unilaterial cervical headgear followed by multi-bonded fixed appliances. The Class II correction is likely to be stable provided an ideal intercuspation is established, and maintenance of a fixed mandibular canine-to-canine retainer made of thick spiral wire bonded only to the canines is likely to maintain the intercanine distance and the mandibular incisor position and indirectly prevent relapse of the deep bite. This retainer can be worn for a long period of time without risk of iatrogenic effects.

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References

3. Tweed CH. Indications for the extraction of teeth in orthodontic procedure. Am J Orthod 1944;30:405-28

Figure legends

Fig. 1: Pretreatment records demonstrating Class II, division 2 subdivision malocclusion associated with slightly increased ANB angle, a low mandibular planer angle, retroclined maxillary incisors, and retruded but normally inclined mandibular incisors (D).

Fig. 2: Intraoral initial and progress photos demonstrating effect of unilateral HG for Class II correction (A,C) use of anterior bite plate during initial leveling of deep bite (E,F), and use of full size rectangular wires following successful leveling (G,H).

Fig. 3: Intraoral initial and progress photos in occlusal view demonstrating design of anterior bite plate used during initial leveling (C), and bonding of mandibular second molars (F).

Fig. 4: Post-treatment records demonstrating excellent occlusal results with perfect intercuspation (E-G), slightly overcorrected overbite (F), well-coordinated facial proportions (A-D), ideal incisor positions and inclinations with appropriate intercanine angle (H), and adequate root parallelism (R).

Fig. 5: Lateral cephalograms and study models in lateral and occlusal view made before (A,E) and after (B,F) treatment as well at 6 months (C,G), 2 years (D,H,LK) follow-up of patient with stable correction of severe Class II subdivision relationships, probably due to excellent, slightly overcorrected occlusal results at end of active treatment and use of fixed, mandibular canine-to-canine retainer to facilitate maintenance of mandibular incisor expansion and incisal edge. Note spontaneous alignment of blocked out maxillary second molars after maxillary first molar distalization during active treatment.
Indian dental business receives large-scale investment

By DT Asia Pacific

NEW DELHI, India: Indian private equity firm Asian Healthcare Fund (AHF) has confirmed that it will be investing significantly in one of the country’s largest dental chains. According to CEO Ajay Kumar Vij, his company intends to pump INR400 million (US$7 million) into Western Indian-based Total Dental Care, which runs dental clinics in Mumbai and Pune under the mydentist brand.

In addition to the investment from AHF, mydentist is also reported to have received INR100 million (US$1.8 million) from its main investor, Seedfund, in Mumbai.

Founder and CEO Vikram Vora said in a statement that with the upcoming cash injection his company aims to increase the number of mydentist clinics from 48 currently to over 120 across both cities. Opportunities for expansion into other parts of the country are also being evaluated, he said.

Mydentist is AHF’s first investment since the fund was set up by Vij and the chairman of the Dabur group, Anand Burman, in 2010. According to Burman’s company, it is intended to identify opportunities for investment in the country’s booming health-care sector. Dabur is one of the largest consumer goods providers in India, selling foods, and personal and health-care goods like toothpaste. Last year, it reported revenues of INR52.8 trillion (US$966.2 billion) worldwide.

In addition to Dabur, AHF is believed to have several other investors.
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  - Taking guided Implantology to the next level: Integrating CAD/CAM and CBCT

- Dr. med. dent Andreas Bindl, Switzerland
  - Clinical Applications of CAD/CAM Chairside Dentistry

- Dr. Eduardo Mahn, Chile
  - Pursuing Maximum Esthetics and Simplicity for Everyone with Modern CAD/CAM Materials

- Dr. Kurt Dawirs, DMD, DD, Germany
  - A Complete 3-D Realization - From Virtual Planning to Final Individual Designed Prosthetics

- Joachim A. Maier, MDT, Germany
  - ZOLID: Base for Aesthetic All-Ceramic with Long-Term Success

- Dr. Bernd v/d Heyd & Werner Gosch, MDT, Germany
  - *Performance is our Passion* A survey on CAD/CAM today towards the traditional craftsmanship

- Simon Docker, United Kingdom
  - CAD/CAM Technology for the Digital World

- Ralf Oppacher, MDT, Germany
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Lebanese Dental Association has signed a custom exclusive partnership agreement with Dental Online College from which all Lebanese dentists will benefit free access to visualize scientific online videos.

The Union Of Palestinian dentists in Lebanon continues the national campaign for Palestinian children teeth protection which is covering more than 3500 child and 450 child with special needs.

Lebanese dental laboratories association is completing its continuing education program for dental laboratories specialists.

Ms Mazen Houli has been elected as President of The General Union of Jordanian Dental Laboratories Owners for two years mandate.

The Université Antonine, campus of Mejdlaya in the North of LEBANON, will be launching for the next academic year 2014-2015 a bachelor degree program in dental laboratory technology. Three years program.

Droguerie TAMER is launching the CAD CAM system “Wieland” in LEBANON.

Dentaltech Lebanon has moved to a new headquarter equipped with a modern show room and conference hall.

The Université Antonine, main campus Hadat-Baabda LEBANON is launching a post graduate diploma in dental laboratory technology for the academic year 2013-2014, one year program after the bachelor degree. Hands on and seminars focused on advanced ceramics, CAD CAM and Implants.

Dr Ibrahim Tarawneh has been elected as President of Jordanian Dental Association for Three Year Mandate.
Every day protection from everyday acids

Modern eating and drinking habits increase the exposure of tooth enamel to dietary acid that can lead to Acid Wear (erosive tooth wear), the biggest contributor to tooth wear.4 In the early stages of Acid Wear, a patient’s enamel can become translucent, anatomical features can be lost and molar cupping can occur.

GSK collaborated with leading experts in the field to develop Pronamel Daily Toothpaste to help protect patients at risk of Acid Wear. With its optimised formulation, Pronamel is proven in a range of clinical in situ and in vitro studies to reharden acid-softened enamel and protect against future acid challenges.5,6

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In laboratory experiments Pronamel’s optimised formulation ensures more fluoride is available at the patient’s tooth surface to protect from the effects of Acid Wear compared to other toothpastes with the same marked fluoride levels.3

Pronamel has been clinically tested in situ to...

- Reharden acid-softened enamel6
- Build protection against future acid challenges6

Adapted from Hora et al. Bovine enamel specimens were subjected to an erosive challenge. This was followed by fixation to palatal appliances and a 4-hour intra-oral phase in 58 human subjects. This phase included tooth brushing with tested products and a further erosive challenge.

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