“The edentulous patient is an amputee, an oral invalid, to whom we should pay total respect and rehabilitation ambitions”. Per-Ingvar Brånemark

By Safa Tahmasebi DDS MS

As a professor of surgery and research, P-I Brånemark is considered the father of modern dental implantology (Figure 1). In the early 50’s he discovered the process of osseointegration, which later was referred to as the direct structural and functional connection between living bone and the surface of a load-bearing artificial implant. (Figure 2)

This discovery was a result of a series of vital microscopic experiments on blood in mobile tissues, bone and bone marrow by placing titanium optic chambers in rabbit’s tibia. Later it was discovered it was extremely difficult to remove these chambers for further use after a period of healing. (Figure 3)

Since then Brånemark and his team conducted numerous research aimed at Orthopedics, joint replacements, plastic surgery and tumor defects. In 1965 Brånemark treated the first human patient Gösta Larsson with titanium dental implants who was missing teeth as a result of jaw deformities. Larsson passed away in 2006 and used his implants for more than 40 years. (Figure 4 - page 34)

The initial reaction of skepticism and doubt was overcome in 1982 in North America at the Toronto conference on osseointegration. Here the biology, clinical research and applications of osseointegration were presented to the world and since then for 32 years millions of people have been able to benefit from the life changing contributions of osseointegration.

Today the rehabilitation of patients with oral, Maxillofacial and orthopedic impairments has been accepted and adopted by the international community and through a worldwide collaboration and ongoing research and advancements we have gained enormous knowledge for treating our patients. These advancements have allowed the clinicians to apply load-bearing implants with teeth the day of the surgery and this has had a remarkable impact into the quality of the patient’s lives.

In 1989 Professor Brånemark founded the first The Brånemark Osseointegration Center (BOC) in Gothenburg, Sweden (www.branemark.com). BOC’s principal task was to offer management for patients with severe oral, maxillo-facial and orthopedic disabilities. There are only 10 such clinics in the world and in the June of 2013 due to its excellence in dental implant treatment the Dubai BOC was founded by Dr. Cotsa Nicolopoulos and Dr. Petros Yuvanoglu at the Dubai Healthcare City and named SameDay Dental Implants (www.Sameday-implants.com). This demonstrates a milestone of progress for the health system in Dubai being able to host a BOC in the Middle East.

*With dental implants & new teeth all in one day my life changed thanks to SAME DAY DENTAL IMPLANTS. I can now...
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Lithium-ion rechargeable battery
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¹ E. coli, S. mutans and HSV1, HA
Keeping Hygienists in par with Continuing Education initiatives

By Victoria Wilson, Dental Hygiene Therapist, UK

It is our aim of the Dental Hygiene Tribune MEA to keep you, our valuable members and readers, on par with continuing education initiatives across the region. We will target and focus on the most up-to-date treatment methods available, the emerging scientific research and the current best practice techniques used in dental hygiene.

I welcome the opportunity to bring my enthusiasm for Dental Hygiene Tribune to Dental Hygienists in the Middle East and offer an earnest commitment to meeting the need for high quality training and ongoing support in our commendable profession.

I am dedicated to liaising and representing the Continuing Medical Education (CME) team for Dental Hygiene Tribune members to ensure that your interests are being met. With your support, I look forward to developing new programmes for this publication to further encourage collaboration and clinical excellence in the hygiene field. I would appreciate hearing your preferences for CME topics and any other suggestions that you would like to offer.

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Maintenance of dental implants for the hygienist

By Biberach/Fiss

Implant dentistry has become more and more prominent in our everyday practice as patients are keen to have implant-borne prostheses than a conventional bridge work or removable dentures. One of the most important factors for long term success of dental implants is the maintenance of healthy peri-implant tissues.

Hygienists are now seeing more of their patients with dental implant and this is only going to increase in the future as implant therapy becomes cheaper. The role of the hygienist has increased in many ways with regards to dental implants. It is important for a hygienist to be able to diagnose peri-implantitis and to have the knowledge to treat simple to moderate peri-implantitis and to monitor the health of dental implants in the long term as part of the patient’s regular maintenance.

How do you know when an implant has problems?

It is essential to be methodical when monitoring the peri-implant tissues at review appointments to spot the early signs of peri-implantitis. The clinical markers that are used to assess the presence and severity of inflammation around the implant are:

- plaque and calculus accumulation;
- inflammation of the peri-implant tissues;
- increase in peri-implant probing depth;
- bleeding on probing;
- suppuration from the peri-implant pocket;
- mobility;
- radiographic changes.

When probing peri-implant tissues:

- probing results;
- radiographic changes.

Why CME (Continuing Medical Education) or CPD (Continuing Professional Development) is Important to Dental Professionals

By Victoria Wilson

Defining Continuing Professional Development (CPD) and outlining the need for it for dental professionals through a series of publications from Governing bodies, it can be seen that with proper planning, goal assessment and verifiable CPD activities, one can not only meet government regulations for CPD but gain insight and skill set for further professional and personal development.

Method

Review an analysis of CDP for dental professionals from online publications related to bodies in the UK, US, Canada and the Middle East.

Results

CPD can be obtained through a wide range of activities. A structured approach when undertaking the CPD projects of choice, in line with key targeted learning objectives, is key to achieving a noteworthy and credible progression in job performance.

Conclusion

Not only is a minimal amount of CPD required in most countries by law, it can be determined that CPD will not only enhance one’s performance and the overall operations of the facility/clinic, but will result in valuable public awareness for the safety and regulated practices of dental facilities in general.

Introduction

What is CME? - CPD? Continuing Medical Education (CME), otherwise referred as Continuing Professional Development (CPD), is the way in which professionals can enhance their knowledge and skills related through a structured approach.

CPD for dental professionals is an obligation in many countries. A mandatory amount of course-related points must be fulfilled in the form of: lectures, seminars, courses, individual study, peer review, clinical audit or E-learning. These hours can be recorded on a personal CPD record providing the courses are designed to advance professional development as a dental professional and is relevant to one’s practice. (1)

Why is CPD in Dentistry so Important?

Education and qualifications are only the first step towards obtaining a professional career. CPD is an obligation to one’s profession - not only for the personal benefits for individuals and clinics, but also for the overall perception and confidence that the public has in the dental industry.

Dentistry is constantly evolving through new methods and technologies to better meet the needs of patients. CPD will ensure that dental professionals continue to be at the forefront of this knowledge. It is important for patient comfort, well-being and safety.

It is also required by law for all registrants working under the local medical authority to undertake a minimum amount of CPD points in order to maintain the license of the practice. If this minimum is not met by all of the professionals, the license cannot be renewed.

Verifying CPD points

In some countries, such as the UAE, the Governing body acts to verify the CPD provider. Submission of papers for a CPD event must be approved by Dubai Health Authority (DHA), Dubai Health Care City (DHCC) or Health Authority Abu Dhabi (HAAD) prior to an event.

In other countries, such as the UK, parts of US and Canada, verifying the CPD provider is determined by the judgment of the registrant. It is a common requirement to have to keep documentary evidence in these countries for up to 5 years post CPD cycle. (4,5)

There will generally be documentary evidence that the CPD has been undertaken with concise educational aims and objectives and clear and
In ‘bleeding on probing’ trials over 4 weeks, parodontax® demonstrated significant effects in reducing bleeding gums by 22% (p<0.01)

Bleeding on probing increased after 4 weeks of brushing with the fluoride control toothpaste

Adapted from Saxer et al 1994. All interdental spaces from 6 to 6 were tested at baseline and 4 weeks for bleeding on probing on the right side (buccal) and left side (lingual). Findings were recorded as 0=no bleeding, 1=slight/isolated bleeding, 2=marked bleeding. Mean scores were determined. N=22.
Baseline values [Mean SD]: Control (fluoride-containing toothpaste) group 24.75 (6.34); parodontax® group 25.40 (5.89). After 4 weeks: Control (fluoride-containing toothpaste) group 26.00 (9.14); parodontax® group 19.80 (7.38). *parodontax® vs control p<0.05.
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.\(^1\)\(^-\)\(^4\) 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.\(^5\)\(^6\)

**Not all toothpastes are the same**

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 tooth pastes with the same marked fluoride levels.\(^5\)

Pronamel has been clinically tested *in situ* to...

- Reharden acid-softened enamel\(^6\)
- Build protection against future acid challenges\(^6\)

![Figure 2: *in situ* rehardening microindentation study following treatment with dentifrices\(^6\)](image)

**Figure 2: *in situ* rehardening microindentation study following treatment with dentifrices\(^6\)**

![Figure 1: DSIMS imagery to show amount of fluoride at the tooth’s surface *in vitro*\(^1\)](image)

**Figure 1: DSIMS imagery to show amount of fluoride at the tooth’s surface *in vitro*\(^1\)**

- Shows the lack of any fluoride uptake
- Fluoride retained at the tooth’s surface
- Increased concentration of fluoride retained at the tooth’s surface

Adapted from Edwards MI et al. Dynamic Secondary Ion Mass Spectrometry (DSIMS) of the fluoride content of human enamel exposed to a citric acid challenge followed by treatment for 2 minutes with a range of dentifrice slurries.

Pronamel is proven to reharden acid-softened enamel and provide ongoing protection from the effects of Acid Wear:

- **Low abrasivity**
- **Neutral pH (7.1)**
- **SLS*-free**

![Daily protection from the effects of Acid Wear](image)

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Packed in procedural order, you get everything you need for each treatment, including Philips Zoom at-home whitening gel for follow up and maintenance complete in a single package. The Philips Zoom Kit also includes simplified visual instructions.

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**New Philips Zoom WhiteSpeed Whitening LED Accelerator**
The advanced Philips blue LED technology provides approximately 50,000 hours of use—reducing operating costs, downtime and is 40% more energy efficient. The light also emits 100% greater light intensity* with no compromise to safety. Redesigned to be easier to position and more ergonomic, your patients and your treatment will be better than ever.

**New support for your practice**
Philips Zoom is funding a worldwide public relations campaign to drive patients to dental professionals, and new programs to help you quickly and easily integrate Zoom into your practice.

“With this new light the patient’s sensitivity is minimal, making the procedure much more pleasurable.”
– Juban Dental Care - Baton Rouge, LA

**Reveal your patients’ most healthy, radiant smile with Philips Zoom WhiteSpeed**

Give your patients the immediate white smile they want and the healthy white teeth they need, with the new Philips Zoom WhiteSpeed. The number one patient-requested professional teeth whitening brand* is clinically proven to deliver superior whitening results in just one office visit. WhiteSpeed is shown to whiten teeth up to 8 shades in 45 minutes; that’s 40% better than a comparable non-light activated system.†

The new Whitening LED Accelerator’s variable intensity settings allow you to customize the output to ensure each patient receives a more comfortable treatment. 91% of patients experienced little to no sensitivity with Zoom WhiteSpeed.‡

Now better than ever — Philips Zoom WhiteSpeed.

* In the U.S.
† Compared to Philips Dash
‡ Results based on 500-person study. Data on file.
Scientists from Norway develop scaffolding to repair severe teeth and jawbone defects

By Dental Tribune International

Scientists from Norway have developed a new artificial scaffolding that aids bone regeneration. Within a new artificial scaffolding that is as strong as real bone and yet porous enough for bone tissue and blood vessels to grow into it and work as a reinforcement for the new bone," said Prof. Ståle Petter Lyngstadhaas, Dean of Research at the Department of Biomaterials at the university’s Institute of Clinical Dentistry. The scaffolding can be produced like cinder blocks and cut into individual shapes to fit into specific bone defects. It is manufactured from a mixture of water and ceramic powder, which is poured through foam rubber that was designed to look like trabecular bone. The ceramic powder consists of medical-grade titanium dioxide and silicon dioxide nanoparticles, which are also widely used as an additive in sweets, toothpaste and baked goods. Once the mixture has solidified, it is heated to a temperature that causes the foam rubber to dissolve into water vapour and carbon dioxide and the nanoparticles to ligate into one solid structure. It has an open porosity of 90 per cent, containing mostly empty space that can be filled with new bone and blood vessels, which current materials do not provide. While current materials are degraded gradually, the new scaffolding remains an integral part of the repaired bone, working as reinforcement, Lyngstadhaas explained. In addition, the generation process could be accelerated by the insertion of bone progenitor cells or bone marrow, containing stem cells. Conventionally, damaged bone is repaired by removing tissue from healthy bones, such as the mandible or hip, for implantation. Patients often experience discomfort and complications after the surgery. This can be avoided by using the scaffolding.

The new material was developed in collaboration with Corticalis, a Norwegian company that specialises in innovative biomaterials. In order to market their invention, the researchers are currently looking for an industry partner.

Table 2 – Health Authority Abu Dhabi (HAAD) CPD Requirements

Table 3 – UK Standards for CPD

Table 4 – Example of Professional Development Plan

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It is essential that good oral hygiene is performed to maintain healthy peri-implant tissues. The use of toothbrushes, either manual or electric, helps to reduce the amount of plaque biofilm. Floss, including super floss and interdental brushes is essential for access interproximal. It is very important that an adequate flossing technique or no flossing at all can lead to subgingival inflammation of the peri-implant tissues. A poor flossing technique can also cause the formation of calculus, which can cause soreness, swelling, bleeding on probing and eventual bone loss.

Any occlusal overloading needs to be corrected by the implant dentist. Plaque induced inflammation is initially treated non-surgically but depends on the initial clinical presentation. This involves the removal of dental plaque with or without the use of locally delivered or systemic adjuncts. Lesions with probing depth of 5 mm or more and bone loss of greater than 2 mm would need surgical intervention as recommended by the International Team for Implantology (ITI) consensus report Figure 1.

A common cause of plaque induced peri-implantitis is excess cement which has been forced into the tissue when the crown is cemented. If the excess cement is not thoroughly removed by the implant dentist, this will induce inflammation of the tissue and possible bone loss.

Healthy gingival cuff around an implant.

When pocketing has been noted then using the CIST protocol will help treat the majority of peri-implantitis cases. Below is an example of an UR2 with 8 mm pocketing, the site was treated non-surgically with local delivery antimicrobials and with the patient using chlorhexidine gel with the largest interdental brush (Figs. 6a-c). At 2 weeks review the pocketing associated with the UR2 has reduced to 5 mm with simple non-surgical therapy any further intervention will need to be reviewed by the implant dentist.

Fig. 6a: 8 mm pocketing UR2.

Fig. 6b: After subgingival curettage of the pocket the patient was shown how to use a large interdental brush with chlorhexidine gel twice a day.

Fig. 6c: Patient reviewed at 2 weeks. The inflamed tissue have reduced exposing the crown margin.

Fig. 6d: U2 pocketing has reduced 5 mm.

Conclusion

Good oral hygiene performed by the patient has a significant affect on the stability of the marginal bone around dental implants. Therefore regular hygiene appointments are necessary to ensure that your patients are maintaining a high standard of oral hygiene around their dental implants.

Fig. 6e: Cross over flossing technique.

Figs. 6a-f: Cross over flossing technique.
Complex dental problems and the contribution of adjunctive orthodontics

By Professor Athanasios E. Athanasiadis, DDS, MD

The goal of contemporary dentistry is the maintenance of natural dentition under biologically, functionally and esthetically optimal conditions, for the longest possible period. An increasing number of adult people present a variety of complex dental problems, which concern more than one clinical discipline or specialty. These include caries, periodontal diseases, dental trauma, edentulous sites, malocclusions, or their combination.

This article outlines existing orthodontic therapeutic possibilities for adhesive dental work and emphasizes the importance of teamwork among the general dentist, the orthodontic specialist, and other dental specialists.

Principles of treatment planning for complex dental problems

The need to formulate problem-oriented treatment plans, which address patients’ chief complaint for complex cases necessitates consensus among the parties involved namely the general dentist, the specialist and the patient. Diagnosis must utilize patient’s data, derived from records interpreted by the clinician using strict scientific criteria. On the other hand, treatment planning constitutes an intellectual process where subjective elements are often involved. It is the path that the well-educated and experienced clinician follows in order to maximize the benefits for the patient, which must be contrasted to the cost and risk involved when certain procedures are adopted (1). An essential requirement for successful interaction is that both general practitioner and specialist are in agreement regarding the advantages and limitations of the treatment chosen.

Adjunctive orthodontics

Adjunctive orthodontic treatment is tooth movement carried out to facilitate other dental procedures necessary to control disease and to restore function. It may be an alternative adjunct to general dentistry by providing (a) rehabilitation following tooth migration due to pre-existing periodontal disease; (b) pre-prosthetic orthodontics; (c) treatment of periodontal defects; and (d) orthodontics as an alternative to prosthodontics (2).

Orthodontics and periodontics

It has been documented that orthodontic treatment in patients with severe periodontal destruction is no longer a contraindication (5). On the contrary such treatment might even enhance the possibilities of saving and restoring a deteriorating dentition. During the orthodontic movement it is the entire periodontal unit (bone, periodontal ligament, and soft tissues), which moves with the tooth (4). This all-embracing movement has been shown to be beneficial when orthodontic uprighting of tipped molars is undertaken since the crestal bone exhibits predictable and considerable changes (5) (Figure 1). Forced eruption has also been reported to decrease the depth of isolated vertical infrabony defects and to expose tooth structure, thus allowing the prosthetic management of subgingival fractures, caries and lateral root perforations (6) (Figure 2).

Orthodontics and missing teeth

In cases where lateral incisors are congenitally missing and other malocclusion co-exist, it must be recognized that the treatment of choice is the orthodontic movement of the canines to...
Aesthetics and function: Orthodontic – surgical collaboration as a key to success

By Drs. Martin Jaroch & Friedrich Banz, Germany

Oral surgery is an important cornerstone in orthodontic treatment of malocclusions. Tooth movement is only possible to a limited extent and always depends on the remodelling of the bone of the maxilla and mandible in relation to each other, as well as on deformities of the jaw in relation to the other facial bones.

Anomalies may be congenital or acquired and may affect patients in childhood already. If so, the focus of orthodontic treatment is not primarily in the aesthetic correction, but is guided by functional and prophyactic concerns. Efficient occlusion and restoration of masticatory function are decisive factors for tooth preservation and prevention of secondary disorders (Figs. 1a–c). Without a doubt, aesthetic improvement, as well as the associated self-consciousness, is the main concern of adult patients, which can be pursued through surgical correction.

Causes of malocclusion

Generally, patients visit an orthodontic practice only after symptoms or significant anomalies have already appeared. Clinically, this results in late mixed dentition or permanent dentition. Pediatric orthodontists can therefore make an early diagnosis of the reasons for this malocclusion. The vogue of Greifswald, Germany, however, clinically these results may lead to functional orthodontics solely, orthodontic–surgical intervention can be done before any treatment is attempted by pure dentoalveolar compensatory intervention. Compensatory dentoalveolar procedures could prevent a surgical operation. At the same time, patients may run the risk of postponed treatment without any long-lasting benefit. The decision for or against orthodontic surgery requires interdisciplinary agreement and reliable treatment goals must be defined in advance (Figs. 2a & b).

Target group for orthopaedic surgery

Nowadays, adults make up the majority of patients in the orthodontic practice. They are generally motivated by high socio-cultural demands and the desire for perfect teeth. In adults who have an obvious discrepancy between their maxilla and mandible, it must be clarified whether the deformities are dentoalveolar or skeletal. Owing to the limitations of conventional orthodontic treatment, skeletal discrepancies can rarely be entirely resolved. In those cases, combined orthodontic–surgical treatment is necessary. During growth, it is mostly possible to treat malocclusions successfully without surgery by purely orthodontic treatment using removable appliances or brackets.

Children and young people for whom functional orthodontic treatment has not led to the desired result are treated surgically already after the growth period. Early surgery always carries the risk of unexpected growth pattern or unilateral abnormal hyperplasia and can affect the results of the operation.

Selection of patients

Combined orthodontic–surgical treatment requires not only strong and focused interdisciplinary collaboration, but also absolute acceptance of the treatment plan by patients and parents. The treatment is time-consuming and post-operative corrections cannot be excluded. A detailed medical preoperative discussion should inform patients about the risks of combined treatment and the consequences of untreated malocclusions. Malocclusions can cause numerous side-effects, such as back pain and chronic headaches (Figs. 4a–c). In markedly dolichofacial face types, malocclusions can lead to a pharyngeal constriction, which can manifest as obstructive sleep apnoea syndrome (Hochhan et al. 1997).

In adult patients, it is normally useless to determine the amount of malocclusion and force bite using a flat-plane bite splint. The splint is worn for six to eight weeks, and guarantees the identification of the physiological condylar position. Pursuing orthodontic correction depends on the intended post-operative situation. Therefore, such correction is only dentoalveolar and does not transfer bite forces to the articular surfaces.

Orthodontic—surgical treatment is an important milestone in orthodontic treatment of malocclusions. Therefore, it is advisable to postpone surgical treatment until the cessation of growth.

Surgical technique

The choice of technique for the osteotomy depends on various factors. An uncorrected malocclusion after osteotomy, surgical access to the bone is created, which is split at fixed points. Correction of the bone and bone healing in the new fixed position is accomplished using simulated cast surgery and a fabricated splint. Following surgical modification of the jaw area, it is important to consider the correct position of the jaw and the optimal occlusion. This crucial step has always been performed by the orthodontist as accurately as possible because it defines the degree of displacement of the jaw depend on achievable occlusion. Furthermore, teeth have an influence on access to the surgical field and wisdom teeth must be removed before osteotomy in certain cases.

Osteotomy can be done on both jaws or can be limited to the maxilla or mandible. However, in many cases it is functional to perform binaxillary osteotomy and to shift both jaws. Today, generally the entire tooth-bearing portion of the jaw is shifted. Segmental osteotomy has not been proven to be very successful in the past and corrections of malocclusions are left to the orthodontic treatment partners. To this end, in 1975, the Obwegesser–Dal Pont surgical technique is recommended. This procedure describes an intra-oral stepped osteotomy at the mandibular ramus (Figs. 6a–b). Since Bell and Eaker described the possibility of bilateral maxillary surgery as the “down fracture” technique in 1975, it has been popular and today you can find it mostly as a combi-
Operation risk

Any surgical procedure can lead to unexpected complications, which must always be considered according to the risk-benefit principle. Today, the need for osteotomy remains controversial because a jaw deformity is not a serious illness like a tumor, abscess or bone fracture, which is necessarily treated by surgery. Since deformities are often aesthetic corrections and can be classified as elective procedures, operation safety is a chief concern. Isolated osteotomies of the mandible, which present a significantly lower surgery risk, should be the first choice for orthodontic-surgical interventions.

The most significant risk of osteotomy of the mandible is a probability of about 5% of damaging the sensory nerve, called the inferior alveolar nerve. This can cause sensibility problems of the lower lip and chin area (Figs. 9a-c). Additional serious risks are not expected using Obwegeser-Dal Pont surgery and post-operative bleeding can be controlled very safely.

Interdisciplinary collaboration

The literature review of work done in the 1970s makes clear that today’s conscientious collaboration between surgeons and orthodontists is not a matter of course. Over the years, orthognathic surgery was considered to be the last option for treating orthodontic cases that could not be resolved using standard treatment techniques. Therefore, operations were carried out based on tolerance of dentoalveolar compensation and likely made further corrective surgery more probable. Today, in almost all cases of malocclusion, orthodontic treatment is preceded by surgical treatment. Nowadays, the planning of the operation based on simulated cast surgery and the creation of a splint is a very safe method by which to achieve predictable and stable long-term results (Figs. 10a & b). Individual dentoalveolar discrepancies in occlusion can be corrected preoperatively or post-operatively by orthodontic treatment. Therefore, interdisciplinary collaboration is always a benefit for the patient and treatment team.
By Dr. Khaled Abouseada, KSA

It was a pleasure to interview Dr. Nikhil Vaid, who could be ranked as one of the key doctors to enrich and strengthen our orthodontic section in Ortho Tribune, bringing it to new heights by displaying a wide screening of Dr. Nanda's vast crucial achievements. The focal objective was encapsulating the accumulated information I received from him in an easily digestible manner providing a platform for all the diverse ideas, updates, ethics and principles of orthodontic practices and researches Dr. Nikhil Vaid conveyed. Working with the philosophy of placing an attractive, remarkably planned song to shine light on distinguished professionals orthodontists to paint the path forward for our science-related readers. Dr. Vaid is an innovative leader in the field of Orthodontics and has demonstrated considerable leadership in playing a major role in improving the practice in India, targeting unique researches and development efforts as well as leading growth initiatives.

Dr. Nikhil Vaid: To be very honest I have not been an orthodontist for that long, to see a decade-by-decade shift in the present practice, that has been very exciting. In the last 12 years from when I started out, the major thread which has been the incorporation of technology in all spheres: Diagnosis, Research, Planning, and Treatment has been the most impressive. A lot of purists feel the skill levels of the contemporary Orthodontist are becoming redundant because of technology; I would like to think otherwise. The skill required to change and the only thing constant with any science, Fundamental principles will still govern Orthodontic care delivery, but incorporation of technology has been a major component in the quality of life of both the orthodontist and the orthodontic patient. Today Micro implants are the main stay of anchorage control, I only use Self Ligating brackets, because of chair side efficiency. Lingual Orthodontics, Aligners, Stereolithography, 3D Printing are the main stay of our teaching and practice protocols. The third dimension is the driven force to improved precision in these appliances due to CAD CAM and Robotics.

Back to years of study and residency in India, how can you describe those days?
The 2nd International Students’ Dental Conference 2014

By University of Sharjah Dental Students Association

A pril 9-10, 2014, saw over 700 students from ten countries gather together at the University of Sharjah College of Dental Medicine for the 2nd International Students’ Dental Conference. The conference was opened by His Highness Crown Prince Sheikh Sultan bin Mohammed bin Sultan Al Qasimi who toured all the ex-hibits from eight companies such as Listerine, Oral B and GlaxoSmithKline, asking many questions along the way, before he oversaw the opening ceremonies.

The conference was a huge success for the students of the University of Sharjah Dental Students Association, who created, planned, organized and executed the whole conference of exhibits, poster presenta-tions, oral research presenta-tions and debates. The two debates focusing on the treatment options of endodontics versus implants, and the other debate on where to draw the line between prevention and restoration in cases of incipient caries, drew lots of interest and result-ed in lively and sometimes pas-sionate discussion.

Additionally, a number of part-icipation workshops on topics ranging from layering of anteri-or resin composite, to TMI, lasers, rotary endodontics, im-plants, veneers and a suturing clinic gave participants some outstanding hands-on experiences.

All-in-all, the conference was a culmination of very hard work from the Executive Committee of the Student Association and the Organizing Committee. Dean of the College, Professor Richard J. Simonsen noted in his strong praise of the stu-dents that he has never seen a more active and giving group of young people in his over 40 years in dental education.

“...has evolved to be a ‘must-attend’ event for all dental healthcare professionals and related industries in the Asia-Pacific region.”

The main organizer, Rawand Naji, the President of the US-DSA was very pleased with the program and participation from countries as far afield as Russia and Poland. “Next year we hope to consolidate this conference into a regular annual highlight on the dental calendar and eventually to attract many more students from all over the world to the University of Sharjah” said student-doctor Rawand.

Social events such as a desert safari, go karts, and a dinner cruise in Dubai were added at-tractions for the international students which also included large contingents of students from the Kingdom of Saudi Arabia, Sudan and Malaysia as well as students from all the lo-cal schools.

The President of the USDSA was also supported by the rest of her Board of student-doctors, Mays Faris, Jamaa Lisa Ir-bayce, Shbeer Sha’al, Shoueruk Mahmoud, Sally Masoud Man-lia, Sara Anbari, Deema Rashan and Mohammed Hussein Haider, all from the second-year dental program at CoS. “It is quite remarkable that a group of 20-year old young students (mainly ladies by the way!) could pull this off with such success while still studying hard for upcoming final ex-a-mins,” said Dean Simonsen.

Faculty support was provided by Dr. Karim Sabah and Dr. Eman Mustafa, and huge sup-port was provided by former USDSA Presidents, Faraj Edber and Hiba Abdulhadi, who were the first to give the credit to the student association leadership, and all the many other students who helped out with the execu-tion of this remarkable confer-ence.

Attendance figures are also expected to increase by 12 per cent, with many new visitors coming from nearby countries like Cambodia, Myanmar and Taiwan. “Not just a place where East meets West, but Singa-pore is also increasingly being considered a gathering point for different parts of the East to meet one another,” Dreyer said.

“Apart from the stark reality of increasing number of cases of cancer which is currently on the rise worldwide. At the Dental Tribune Study Club Symposium at booth 69-22, Singa-pore’s own prosthodontic ex-pert, Dr. Stephen Soo of Specialist Dental Group, will provide insight into CAD/CAM and how its use can benefit workflow in dental practices.

New concepts and methods for dental labs will be discussed at the Dental Technicians Forum, one of the new educational formats specifically targeting other members of the dental profession. In addition to these presentations, lectures for dental hygienist/therapists were also held throughout the days.

Still lots to see and discover at IDEM

By Dental Tribune International

S INGAPOR E: In the presence of Singapore’s Health Minister Gan Kim Yong and senior representatives of Koelnmesse, the Singapore Dental Association, and FDI World Dental Federation, the eighth edition of IDEM Sin-gapore was officially opened on 09 April 2014 at the Suntec Singapore International Conven-tion and Exhibition Centre. The Minister, who graced the traditional Opening Ceremony outside the Exhibition Hall on Level 4 as Guest of Honour, congratulated the organisers of the show that, in his words, “has evolved to be a ‘must-at-tend’ event for all dental healthcare professionals and related industries in the Asia-Pacific region.”

Praise was also given by Singa-pore Dental Association’s Presi-dent Dr Kuan Chee Keong, who said that the ongoing support of Gan’s Ministry and other spon-sors is a testament that IDEM has firmly consolidated its sta-tus as the focal event for the Asia-Pacific dental community. “Besides the opportunity to in-teract with friends and dental professionals from around the world, IDEM also offers the op-pportunity to share knowledge, ideas and practical applications in dentistry,” he said.

IDEM 2014 is poised to be the largest dental show ever to be held in Singapore since it was launched in 2000. According to Koelnmesse’s Vice President of Asia Pacific, Michael Dreyer, 50 per cent more dental manu-facturers and distributors have signed up for the event, which is being held over the week-end at the recently renovated Singapore EXPO Centre. Ref-lecting greater interest from industry players in the Asia Pacific region, national pavilions from China and Japan are

“... IDEM also offers the opportunity to share knowledge, ideas and practical applications in dentistry.”

Aside from the trade fair hustle, clinical presentations as part of the scientific programme will continue today at Level 4 with lectures and workshop focussing on fields like prosthetics and orthodontics. A special presentation by US dentist Dr Barry Freydberg on 05 April 2014 at 4.30 p.m. focused on the detection and prevention of oral cancer, which is among the few types of cancer which are cur-rently on the rise worldwide. At the Dental Tribune Study Club Symposium at booth 69-22, Singa-pore’s own prosthodontic ex-pert, Dr. Stephen Soo of Specialist Dental Group, will provide insight into CAD/CAM and how its use can benefit workflow in dental practices.

New concepts and methods for dental labs will be discussed at the Dental Technicians Forum, one of the new educational formats specifically targeting other members of the dental profession. In addition to these presentations, lectures for dental hygienist/therapists were also held throughout the days.
Dentistry – your dream profession

By Danube Private University

At Danube Private University, students undergo a six-year course in dental medicine, and on completion of the course are awarded the internationally recognized degree Dr. med. dent. This elite course of study at the leading edge of medical and dental science, utilizing state-of-the-art medical and dental equipment, practical facilities and our in-house clinic, stress to both challenge and support its students. We want our graduates to be among the acknowledged leaders of their profession. The dental faculty of the University includes many highly respected scientists who take great pleasure in being a part of a new, innovative project in basic dental studies that is of particular benefit to society – led by our Chancellor, Professor Dr. Dr. Dieter Müssig and our Dean, Professor Dr. Dr. h.c. Andrea Kielbassa.

In addition to instruction in medical and dental subjects, the President of the University, Honorary Consul M.B. Wagner-Pischel, is dedicated not only to the achievement of excellence in research, instruction and innovation, but also to the holistic education of the young people, ensuring that they receive a solid grounding in the arts, literature, science journalism and music, as well as training in empathy. The aim is to promote the well-rounded development of the young people, and equip them with positive approaches for their subsequent career that enhance their communicative intelligence. Dental health and personal care and hygiene play a key role in how people are perceived today. Beauty and mindfulness are valued more than anywhere else in oral and dental health. A good dentist can be compared to an artist, as she requires an exceptional understanding of form and colour as well as spatial visualisation skills. When combined with the state of the art in medical and dental knowledge, the result is uncompromising excellence in patient treatment.

For President Wagner-Pischel, a life spent in the exercise of a profession about which one is passionate is an important and meaningful life commitment as well as a significant contribution to the welfare of society as a whole.

“Our students at Danube Private University have excellent life and education opportunities. We offer them a top dentistry course equipped with state of the art technology that focuses on students’ needs and values them above all else, while upholding the finest traditional humanistic values. Danube Private University emphasizes not only medical and dental science, but also human interaction among students and instructors as well as responsibility to both patients and society,” explains M.B. Wagner-Pischel, President of Danube Private University.

To date, the student body of Danube Private University is made up mostly of the children of dentists and doctors from German-speaking Europe. Young people from all over the world are interested in studying at Danube Private University. In response, we are offering a preparatory course of study for students outside of German-speaking Europe.

Composite Veneers and Masking Discoloration; About Red & White Aesthetics; Direct Veneers Diastema Closure; Virtual Articulator and CAD/CAM Designing Workshop.

The second day of the conference will feature the new Dental Hygiene Seminar focused entirely on the Dental Hygienist providing the latest in Periodontal Instrumentation and Oral Prevention and Management of Denive Hypersensitivity.

Additional to the knowledge delegates will exchange, all attendees will benefit from the networking opportunities in the cozy atmosphere provided by Jumeirah Beach Hotel where you can meet your colleagues from across the globe while lunching at Dubai’s best restaurant.

All Dentists, Dental Technicians and Dental Hygienists are welcome to get the most updated scientific exchange and view the latest technology, trends and developments in CAD/CAM & Digital Dentistry. The future is here and all are welcome to join.
latterals, which they replace (7). Furthermore, periodontal health is greatly diminished as compared to that of cases, which have been rehabilitated by means of prosthodontics (8). The orthodontic closure of the space might be indicated when a premolar or even a molar are missing as long as certain indications exist concerning the whole occlusion or malocclusion (9) (Figure 5).

Orthodontics, restorative dentistry and oral health

When teeth have been lost early, those remaining distal to the edentulous space, usually present with a mesial tipping, displacement and rotation. Individuals with an abnormal mesio-distal inclination or displacement of the posterior teeth were found to have a positive association between me- sialexclination and periodontal destruction. Once periodontal health is established, occlusal forces are better used to reduce mobility, to regain bone lost owing to traumatic occlusal forces, and to treat the etiologic, clinical problems related to occlusal instability and restorative needs (10). Failure to provide appropriate treatment of occlusal trauma in patients with chronic periodontitis may result in progressive bone loss, adverse change in prognosis thus resulting in tooth loss. Uprighting these teeth by orthodontic means before the conventional restoration of the edentulous areas may cor- roborate to their periodontal treatment and maintenance in the dental arch. When premolars will be replaced adequate space is necessary not only at the mesio-distal but also at the buco-lingual direction. Teeth with a negative prognosis can be used to maintain or improve the volume and structure of the alveolar bone at the site where they are located. The forced eruption of a tooth, which is planned to be extracted, improves the architecture of the soft peri- odontal tissues and improves the quality of the available bone (Figure 4). Therefore, the final prosthetic work is associated with a better overall result due to the increase in the gingival height produced by this method (10).

Failed to provide appropriate treatment of occlusal trauma in patients with chronic periodontitis may result in progressive bone loss

Subsequent absence from the dental arch of impacted permanent teeth is not an indication for their prosthodontic replace- ment but rather a sign for the start of their orthodontic trac- tion, placement and alignment into their natural position in the dentition (9).

In cases of extreme anterior overbite, direct trauma to the gingiva from the incisal edges of the mandibular incisors may result in palatal recession of the maxillary incisors (Figure 5). Similarly, in severe Class II, division 2 malocclusions with linguoversion of the maxillary incisors, functional trauma can cause marginal recession of the labial gingiva of the mandibular incisors. This recession, although not the result of peri- odontitis, can result to a signifi- cant loss of attachment.

Clinical observation suggests that when crowding causes overlapping of adjacent teeth, the interproximal space may be minimal, root proximity may occur, and the quality and amount of bony support may be compromised (Diedrich, 2000). This is a poor environment for tissue health. The removal of plaque and subgingival calculus in the inaccessible proximal space may fail despite careful application of prophylaxis pro- cedures. Orthodontic interven- tion can improve the anatomic and functional environment and may limit the recession. Conclusions

Provision of adjunctive orthodontic treatment should be characterized by the following procedures: (a) Knowledge of the clinical boundaries of gen- eral dentistry and of any other dental specialty involved in maintaining natural dentition under biologically, functionally, and esthetically optimal conditions; (b) establishment of two-way, structured, and continuous communication between general dentists and orthodontists concerning the contribution of specialised care to the oral rehabilitation; (c) assessment of the cost-benefit relationship concerning treat- ment fees and duration, coop- eration, inconvenience, dis- comfort, pain and difficulty; and (d) diagnosis and treat- ment planning relying on strict evidence-based criteria.

References


Editorial note:

Full list of references is avail- able from the author. ■

About the Author

Dr. Athanasios E. Athanasiou is Professor and Program Director of Orthodontics, Dubai School of Dental Medicine, United Arab Emirates and Professor of Or- thodontics Aristotle University of Thessaloniki, Greece.

He is former President of the World Federation of Orthodont- ists and the European Federa- tion of Orthodontists.
bite into my food without pain & with confidence”, said P.V Shah an elderly man who received his oral rehabilitation in Dubai by Oral Maxillofacial Surgeon Dr. Costa Nicolopoulos at Same-Day Dental Implants. Since 1991 Doctor Nicolopoulos has been practicing as a full time Maxillofacial & Oral Surgery specialist concentrating on immediate loading of dental implants. (Figure 5).

“Less is more, that is our ambition when it comes to dimensions and numbers of anchoring elements” says Per-Ingvar Brånemark. In ordnance with the founding father of modern implants we can now install a full set of teeth on only four implants thanks to the new advancements in implantology. This total rehabilitation technique for the edentulous patient known as the All-on-4® treatment concept, is a well documented surgical and prosthetic medical procedure.

Clinics like The Same Day Dental Implants Clinic utilize this treatment protocol allowing patients to have their implants and teeth placed all in the same day as opposed to the conventional technique where dental implants are loaded with teeth usually two or three months later. (Figure 6)

Every year all the BOC clinics from around the globe are invited to the Annual Brånemark Osseointegration Center meeting in Gothenburg Sweden to pay respects and tribute to the man who started it all. (Figure 7)

“It is the works of Professor Brånemark sixty years ago that allows us to change our patients lives on a daily basis”, said Dr. Costas Nicolopoulos at the ABOC annual meeting 2014 in February. Here SameDay Dental Implants Clinic was given the Leading Dentists of the World award as a special member at the ABOC meeting 2014.

While new advancements in the medical and dental world impact our patients’ lives, one must not forget that the basis of this invention lies within a man who saw a future while living in the past. (Figure 8)