Enamel weakened by teeth whitening
US study has found that bleaching teeth at home has side effects

From news reports

New research has shown that human teeth can lose some enamel hardness following the application of teeth whitening products used in the home. According to lead author Sherreen Azer, Assistant Professor of Restorative and Prosthetic Dentistry at Ohio State University in the US, the average loss of enamel ranged from 1.2 to 2 nanometres on the treated teeth. Tooth bleaching products contain solutions of varying strengths of either hydrogen peroxide or carbamide peroxide, which produce free radicals that attack pigment molecules in the organic parts of enamel, to provide the whitening effect.

Several studies have sought to determine the effect of tooth whitening on tooth enamel hardness but results have been inconclusive, Azer said. He added that previous studies measured the loss of enamel hardness in microns, or millionths of a metre, while he used a nanometre scale in his study.

In his research, he used whitening strips and trays filled with whitening gel on extracted molars, as well as an atomic force microscope to observe the tiny nanometre-scale effects on the teeth. The reduction in hardness and elastic modulus amongst the different products was largely similar. However, there was a significant difference between one strip treatment and one tray method, with the tray method reducing enamel hardness more significantly than the strip treatment. Although the study did not address methods of restoring hardness to bleached teeth, Azer noted that extensive research has indicated that fluoride treatments, including the use of fluoride toothpaste, can promote enamel remineralisation. He suggested that, based on the study, future generations of tooth whitening products be reformulated in an effort to reduce these side effects.

Malaysia starts oral health campaign

The Malaysian Dental Association has started a new campaign with Colgate-Palmolive to improve oral health among Malaysians. The campaign, in its sixth consecutive year, will provide free dental check-ups for at least 500,000 people at over 560 dental clinics and at road shows nationwide. Colgate will also be giving out free oral-care product samples at the various road shows, in-store venues and dental clinics throughout the month-long campaign.

Malaysia’s Oral Health Month is in line with the National Oral Health Plan 2010, which aims to improve oral health among Malaysians. The campaign, in its sixth consecutive year, will provide free dental check-ups for at least 500,000 people at over 560 dental clinics and at road shows nationwide. Colgate will also be giving out free oral-care product samples at the various road shows, in-store venues and dental clinics throughout the month-long campaign.

Enamel is the hardest structure in the human body. Tooth whitening products may weaken this natural barrier.
Mexico City, showing the package dental patients have to purchase and give to the dentist after the dental procedures. This ensures the proper disinfection of surfaces and the instruments. And the dental profession should follow for this and other outbreaks, Dr Acosta-Gio said, "the dental profession should have access to all the correct information on the flu outbreak. We also want to know that they have access to all the right supplies, and we have been training people in infection control. It is a matter of scenarios. The first part is a public health measure, a state of health care emergency where people are advised to avoid crowds, wear a face mask, to wash their hands, and avoid the splash and splatter exposure to other people's coughing and sneezing.

"In the dental office you don't want to have a waiting room full of people. You have to have a good patient flow and a good airflow for ventilation. The infectious control issues are basically the same with this outbreak as with shot is recommended for every health care professional, including dentists and their staff, as well as tetanus and Hepatitis B," he explained. "We don't want sick dentists and staff handling patients and instruments. Work restrictions should be applied to workers who may have flu-like symptoms."

"The second principle is to avoid contact with blood and body fluids. This is standard precaution as well as cough and sneeze etiquette. Wash your hands. The third principle of infection control is to keep the instruments safe, which means sterilization and high-level disinfection in a sporadic solution of the instruments. And the fourth principle has to do with the disinfection of surfaces and the use of protective barriers to avoid the dissemination of the contamination after or during the patient treatment."

Dr Acosta-Gio said they want to make sure “our students have these procedures well integrated into their practice, and we want to make sure the faculty watch these events. We want to make sure that we can guarantee all the safety we can provide for our patients with sterilization, disinfection and the use of personal protective equipment, and the right kind of personal protective equipment according to the activities.

Asked about the infection control procedures dentists should follow for this and other outbreaks, Dr Acosta-Gio said “the dental profession should have access to all the correct information on the flu outbreak. We also want to know that they have access to all the right supplies, and we have been training people in infection control. It is a matter of scenarios. The first part is a public health measure, a state of health care emergency where people are advised to avoid crowds, wear a face mask, to wash their hands, and avoid the splash and splatter exposure to other people’s coughing and sneezing.

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The top expert added that the potential scenario of a pandemic case study involved a virus originating in Asia or other distant country, which eventually would reach Mexico. Dr Acosta-Gio emphasized that this outbreak should make dentists aware of infection procedures to protect themselves and their patients.

"Back in 2006 Dr José Naro, now the Academic Dean of the University of Mexico, was the Dean of the Medical School, and called for a meeting on pandemic preparedness. We talked different scenarios first that it would come from East South Asia and that we would be reacting to something outside of Mexico," explained Acosta-Gio. "We were considering what the University would do in case of an outbreak. We believed the University would stay open and respond as the outbreak evolved. No, it shows up first in Mexico, and the authorities closed the University. It has taken us one week to understand and re-accommodate all the university components. Dr Naro has formed committees, I am a member of the science and technology committee providing and structuring the institutional response to this outbreak.

Since the outbreak, the Deans of Health Sciences and the university’s president meet every morning at 8 am. The dental school has a well-structured program in infectious control on UNAM’s web page, which has been linked to all its infection control procedures. And the dental school has the right kind of personal protective equipment appropriate for this and other outbreaks, Dr Acosta-Gio said, “the dental profession should have access to all the correct information on the flu outbreak. We also want to know that they have access to all the right supplies, and we have been training people in infection control. It is a matter of scenarios. The first part is a public health measure, a state of health care emergency where people are advised to avoid crowds, wear a face mask, to wash their hands, and avoid the splash and splatter exposure to other people’s coughing and sneezing.

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Dr镊子Martines de Pisón

Mexico City, Mexico: The head of infection control at the School of Dentistry of the National University of Mexico (UNAM), Dr Enrique Acosta-Gio, said in an interview with Dental Tribune Latin America that the outbreak of the swine flu pandemic came as a total surprise.

"You talk to dentists about global health risks, about a biological event of worldwide significance and they look at you and wonder, ‘how does this relate to me?’ People thought that this sounded like a doomsday scenario. Even I was not prepared for an outbreak originating in Mexico," said Dr Acosta-Gio, who has been head of dental infection control at UNAM since 1992.

UNAM, one of the largest universities in the world with a campus twice the size of New York’s Central Park, has research facilities and highly trained human resources who have studied influenza in animals and humans, and its president is a permanent advisor to Mexico’s Health Secretary. Mexico’s Health Department has shut down the campus as well as schools from kindergarten to the university level until reliable data on the evolution of the pandemic is available.

It came as a surprise

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"People are not really interested in understanding the biological behavior of the virus; they only want to know what to do," explains Acosta-Gio. “We are trying to formulate all the frequently asked questions to a ‘yes, no and information is not available at this time’ so we can respond briefly to the questions and provide some advice on what to do, how to act.

What is UNAM doing

Thousands of UNAM nursing and medical students are working in the hospitals of Mexico now fighting the swine flu outbreak. The University is providing them with information on safe clinical behavior and safe clinical practices.
Taiwan to attend World Health Assembly

Organisation’s (WHO) assembly under the name Chinese Taipei. China must approve any WHA role for Taiwan before the island can be formally invited. A spokesman for China’s Taiwan Affairs Office would only say that Beijing had a ‘positive’ attitude toward the issue.

Beijing, backed by about 170 diplomatic allies including the world’s most powerful nations compared to Taiwan’s 25, normally blocks the island from joining international organisations that require statehood as a prerequisite. Relations between Taiwan and China have improved since the island’s President Ma Ying-jeou took office last May, with top negotiators on both sides holding meetings and signing a series of deals to boost trade ties. Ma welcomed the decision to let Taiwan attend the health assembly, saying it was a question of basic human rights. “Joining WHO activities isn’t just a simple political matter, it’s more a matter of human rights and 25 million Taiwan people’s health human rights shouldn’t be ignored,” Ma stated.

Taiwan officials say their exclusion from the WHO and its annual assemblies has made it tough to handle major health issues such as SARS in 2003. The WHA is the supreme decision-making body for the WHO. It is held from 18–27 May 2009 in Geneva, attended by delegates from all 193 members.

(Edited by Claudia Salwiczek, DTI)

Enrolment quotas missed in Japan

From news reports

According to a survey by the Japanese newspaper Yomiuri Shimbun, more than half of private dental colleges and schools across Japan fell short of enrolment quotas for the academic year. Three schools even saw enrolment fall by 40 per cent, which numbers between 51 and 43 students.

The number of people who took entrance examinations for private dental colleges or schools this year was 4,975, a sharp fall from over 10,000 in previous years.

According to major prep schools and other sources, the biggest reason for the fall in enrolment is a belief that the nation has a surplus of dentists. In 1990, there were 74,000 dentists, the number of which rose each year to 87,000 by 2006; yet, there was no rise in total dental care costs over this period. This led to excessive competition among dental clinics.

The fall in enrolment is expected to hurt finances at dental schools because of a decrease in income streams, such as students’ enrolment fees and initial payments for the freshmen year, which are usually between US$72,000 and US$10,000 per student.

The Japanese Association of Private Dental Schools plans to investigate possible counter-measures, out of fear that the shortage could lead to the collapse of the nation’s dental care system.

Observers say it will be difficult for colleges and schools to draw up effective counter-measures to reverse the situation any time soon. Commenting on the issue, Toshi-kazu Yasui, Vice Chairman of the Japanese Association of Private Dental Schools, told Yomiuri Shimbun, “We had anticipated some fall in enrolment but not anything like this. We’re going to have to explain to the public how important dental care is.”

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WEST LAFAYETTE, IN, USA: Researchers at Purdue University in the United States have developed a technique using spun-sugar filaments to create a scaffold of tiny synthetic tubes that might serve as conduits to regenerate nerves severed in accidents or blood vessels damaged by disease. The sugar filaments are coated with a corn-based degradable polymer, and then dissolved in water, leaving behind bundles of hollow polymer tubes that mimic those found in nerves, said Riyi Shi, an associate professor in Purdue’s Weldon School of Biomedical Engineering and Department of Basic Medical Sciences.

The scaffold could be used to promote nerve regeneration by acting as a bridge placed between the ends of severed nerves. The approach also might have applications in repairing blood vessels damaged by trauma and disease such as atherosclerosis and diabetes, Shi said.

The researchers are initially concentrating on the peripheral nerves found in the limbs and throughout the body because nerve regeneration is more complex in the spinal cord. About 800,000 peripheral nerve injuries are reported annually in the United States, with about 50,000 requiring surgery. The new approach represents a potential alternative to the conventional surgical treatment, which uses a nerve ‘autograft’ taken from the leg or other part of the body to repair the injured nerves. Researchers are trying to develop artificial scaffolds to replace the autografts because removing the donor nerve causes a lack of sensation in the portion of the body where it was removed.

The first step in making the tubes is to spin sugar fibers from melted sucrose. “It’s basically like making cotton candy,” said biomedical engineering doctoral student Jianming Li, who is a member of Shi’s research team. The sugar filaments were coated with a polymer called poly L-lactic acid. After the filaments were dissolved, hollow tubes of the polymer remained. The researchers then grew nerve-insulating cells called Schwann cells on these polymer tubes. These cells automatically aligned lengthwise along the tubes, as did nerve cells grown on top of the Schwann cells.

Nerve cells grew not only inside the hollow tubes but also around the outside of the tubes. “This finding is important because the increased surface area may accelerate the regeneration process following an accident,” Li said.

The researchers also discovered that the polymer tubes contain pores that are ideal for supplying nutrients to growing nerve cells and removing waste products from the cells. The work was done using cell cultures in petri dishes, but ongoing work focuses on implanting the scaffolds in animals.

“The method for creating the scaffolds is relatively simple and inexpensive and does not require elaborate laboratory equipment,” Shi said. “We used the same kind of sugar found in candy and a cheap polymer to make samples of these scaffolds for a few dollars. The process easily lends itself to mass production. It is a unique idea, and the simplicity and efficiency of this technology distinguish it from other approaches for nerve repair.”

A provisional patent application on the material has been filed.
Research adds colour to gum disease detection

Dentists at Temple University’s Maurice H. Kornberg School of Dentistry in the United States have found that a simple colour-changing oral strip can help detect gum disease in a patient more quickly and easily than traditional screening methods.

According to lead researcher Dr Ahmed Khocht, DDS and Associate Professor of Periodontology, test results among 73 patients have shown a strong correlation between the patients with gum disease detected by traditional clinical evaluation methods and those detected with the oral strip, suggesting the strips would be a comparable screening method.

The colour reaction was scored based on a colour chart and the scores were compared with scores from the plaque index, gingival index, attachment levels and bleeding on probing.

“The strip changes from white to yellow depending on levels of microbial sulphur compounds found in the saliva,” said Dr Khocht. “A higher concentration of these compounds means a more serious case of gum disease, and shows up a darker shade of yellow.”

Because periodontal disease can affect a person’s overall health, it’s important to have a screening method like the oral strips that is quick and easy for clinicians to use, according to Dr Khocht. “The faster we can find out the disease is present, the sooner we can begin treatment,” he said. “And because the strips can change colour, they can also act as a benchmark to help doctors find the right treatment for their patient and monitor their progress.”

(Edited by Daniel Zimmermann)

Stains mistaken as tooth decay

Penny Palmer
DT UK

LONDON, UK: Stains on teeth are often mistaken for signs of decay, according to new research. A study of 200 private dental patients in the UK found that in over 60 per cent of cases, stains that were hard to remove were mistaken for decay. The stains were only identified using an advanced device that cleans teeth with a blast of fine abrasive particles.

Dental researchers examined a particular ‘premolar’ situated between the front and back teeth and found signs of decay in 78 per cent of cases. But 63 per cent of them turned out to be false alarms when they were examined again, using the CrystalAir abrasion device instead of mirrors and scrapers. The research suggests that stained teeth may result in dentists drilling unnecessarily.

Dr Robin Horton, from the Wayside Dental Practice in Harpenden in Hertfordshire, who co-led the study, claimed that “traditional dental check-ups have led to unnecessary dental treatment for millions of patients.” The CrystalAir abrasion device blasts away dirt, debris and stains using a narrow stream of aluminium oxide particles propelled by helium. It is used in conjunction with a laser probe that can detect deeply hidden decay by shining a light beam through the tooth.

The research found that using the two systems together was 70 per cent more accurate in picking up decay than traditional techniques.
Ray McHugh
UK

GLASGOW, UK: Dentists of the future could be using games technology to hone their clinical skills. Three final-year dental students at the University of Glasgow Dental School have developed the concept of using Wii technology to help dental students practise their operative skills.

The students were announced the winners of The Dental Innovation Technology Ideas Award last week. The competition challenged final-year students to develop an idea for a new piece of technology or innovation in the dental field.

The winning idea suggests the use of the Nintendo Wii console and special software to simulate operative techniques. The wireless controllers would be used by dental students to control the handling of instruments on a virtual patient on the screen. The controllers would also be used to provide sensory feedback to the user.

“Simulation of clinical procedures is normally carried out in the operative techniques lab. However, dental students sometimes have limited opportunity to practise their techniques outside of the lab,” said Dr David Watson of the University of Glasgow Dental School.

“The use of Wii technology could be a really innovative and cost-effective solution which students could use to improve their manual dexterity.”

There is considerable research to back up the concept of using video games to improve dentists’ coordination, and the Wii-based application would complement the simulation technology already used in dental schools worldwide,” Dr Watson added.

The students—Pearse Hanigan, David Lagan and Adam Gray—were presented with a cheque for £300 and a glass obelisk by Craig Leaver, CEO of Dental Innovation, the competition sponsor.

Leaver said: “We received over 40 entries for the competition, all of which were of an extremely high standard. The judging panel were impressed by the depth of research and hard work which had gone into the submissions, which made it very difficult to choose an outright winner. However, we were struck by the inventive-ness of adapting an existing piece of technology in a very novel way.”

“We are absolutely delighted that Glasgow Dental School has given us the opportunity to host this annual award,” he added. “As more dental practices become reliant on digital systems, it is vital that students are up to speed with the latest technologies. We hope the award will inspire them to think about how technology can be applied in practice for greater efficiency and better patient care.”

(Edited by Daniel Zimmermann)
US demands data on older medical devices

Reuters

WASHINGTON, DC, USA: US regulators have ordered makers of 25 types of medical devices to supply safety and effectiveness data so the US government can decide whether the products must undergo the most stringent review process. The order addresses complaints that the Food and Drug Administration had allowed some devices that were sold before 1976 without agency approval to remain on sale without a thorough evaluation.

The devices include metal hip joints, dental implants and screws used for spinal surgery, an FDA notice said. The FDA oversees medical devices ranging from simple bandages and tongue depressors to the most complex products such as pacemakers and heart- valve replacements. Each is classified based on the level of risk to patients. The most dangerous are labeled “Class III” and subject to the most rigorous level of review.

Some Class III devices that were on the market before 1976 were allowed to go through a less stringent evaluation while the FDA developed regulations to address them or decided they were less risky.

In January, the Government Accountability Office criticized the FDA for failing to complete work on all of the pre-1976 Class III devices more than three decades later.

The GAO, a watchdog arm of Congress, urged the FDA to “expeditiously” deal with the remaining products. The order is the first step toward completing that process, FDA officials said.

“We are now committed to addressing this quickly,” Kate Cook, associate director of regulation and policy in the FDA’s device center, said, in an interview.

“Nobel Biocare said it had obtained a positive decision from the German Federal Patent Court invalidating all relevant claims of Materialise’s patent, which according to Materialise, is infringed by Nobel Biocare’s NobelGuide software,” Nobel Biocare said in a statement.

Nobel Biocare expects the Higher Regional Court Düsseldorf to rule favourably on its appeal against the first decision of the Lower Regional Court Düsseldorf in August 2007, which found Nobel Biocare infringed Materialise’s patent.

The Venetian hotel and casino resort in Macau plans to open a dental clinic in the facility. The site will have over 50 dentists, physicians and other health-care professionals, casino officials said.

The worldwide oral hygiene market in 2008 was worth US$25 billion, which included US$2.3 billion in Japan.

Hager Worldwide has announced that it will be moving its multi-tiered dealer pricing, which gave margins of 50 to 45 per cent. The firm will now provide their distributors with a gross margin of 40 per cent across the board, at the base line level, the report of 1,150 products.

Zurich in Switzerland has formed a partnership with Ivoclar Vivadent in Liéchtenstein, through which Straumann will be able to use Ivoclar’s proprietary high-performance IPS e.max ceramic technology. The financial terms of the agreement have not been released.

Wrigley in the US is sponsoring a contest in which dentists around the world can submit photographs that capture “what makes them smile”. The contest is being run in conjunction with the FDI World Dental Federation.

Nobel Biocare in Sweden has announced the global launch of its new NobelProcera system, which includes a new conoscopic holographic enhanced optical scanner. The scanner uses new 5-D software developed by BioCad, a Canadian subsidiary of Nobel.

Biodase Technology, Inc. has announced that its application to transfer the listing of its common stock from the NASDAQ Global Market to the NASDAQ has been approved. The transfer became effective on 16 April 2009, and the company’s common stock will continue to trade under the symbol BLTI.

Dental biomaterials market growth to continue despite challenging 2009, report says

Although dental biomaterials are being used in a growing proportion of dental implant procedures, the market for these products will be damped by the global financial crisis in the coming years as many patients postpone dental implant procedures or choose less expensive alternatives such as crowns. This is the conclusion of the US Markets for Dental Biomaterials 2009 report from Millennium Research Group, a global authority on medical technology market intelligence and leading provider of strategic information to the health care sector.

The US market for dental biomaterials continued to grow in 2008 due to several significant market events: BIOMET 3i’s Endobon and Novolution’s NovaBone were launched in the US in the second quarter of 2008; the US import ban on Straumann’s Endoglas and Honos Ceramic we lifted in August, making these products available toward the end of the year; Curasan’s dental business was purchased by RENTSCHER Arnet- mittel, a German pharmaceutical company; Regeneration Technologies and Tutogen Medical merged and now operate under the new name RTI Biologics; and Lifecore Biomedical’s dental division merged with Keystone Dental following Life- core Biomedical’s acquisition of Wachburg Furr.

“These events supported market expansion in 2008 and highlight the revenue potential in the dental biomaterial space,” says Kevin Flewwelling, Manager of the Orthopedics division at MRG. “Although 2009 will be a challenging year for dental biomaterial sales, market growth will continue through 2015.”
“Asia Pacific will continue to be a key growth driver for implant dentistry”

Interview with Frank Hemm, Senior Vice-President of Straumann Asia Pacific

Frank Hemm worked as a management consultant for several years in the health-care industry before he became involved with Straumann, a worldwide leading company in implant dentistry. One of the things that attracted him to the company was its drive for purposeful innovation and the improvement of the quality of patient care, he says. Dental Tribune Group Editor Daniel Zimmermann spoke with him about Straumann’s move to Singapore and recent developments and trends in the dental implant markets in Asia.

Daniel Zimmermann: You recently moved your regional headquarters to the Fuji Xerox Towers in Singapore. What was behind this decision and how has the dental community reacted?

Frank Hemm: The Asia Pacific region had been managed from our corporate headquarters in Basel up to the middle of 2008 when we decided to establish a regional headquarters in Singapore. Several factors prompted the move. In 2007, we acquired our former distribution partners in Japan and Korea, which gave us direct access to the two largest markets in the region. At the same time, we acquired a sizeable team that had to be integrated into the Group, which required management support and coordination. Furthermore, the increasing importance of Asia Pacific as a growth region encouraged us to expand our regional presence and influence, to be closer to our customers in order to better understand and meet their needs. The reaction of the dental community to Straumann’s commitment and support has been very positive so far.

The net revenue growth of your company for Asia was 42 per cent in 2007 compared with only 21 per cent in Europe and 16 per cent in the US. In your opinion, how large is the market for dental implant solutions in Asia?

Obviously, our growth in 2007 benefited considerably from the acquisition effect. Nobody really knows exactly how large the market in Asia is, and estimates vary widely because there is limited transparency in the sales of the smaller companies. Suffice it to say that the market is particularly attractive for companies that offer integrated dental solutions.

In terms of revenue, Asia is still behind North America and Europe. But with the huge potential of countries like China and India, do you expect to see a shift of sales away from these regions?

In absolute terms, Asia Pacific will lag behind Europe and North America for some time to come because the penetration rates there are significantly higher. However, in terms of the future growth potential, especially in China and India, Asia Pacific will continue to be a key growth driver and will command an increasing share of overall sales. As the market leader in China, Straumann is well positioned to take advantage of these growth dynamics.

In which markets do you see the largest potential for growth and why?

In terms of market size, Japan and Korea will continue to be the key markets in Asia Pacific in the short and mid-term. The biggest growth potential, however, is expected to come from China with its strong institutional segment and emerging private sector. India is also expected to contribute substantially to regional growth.

Do you think that Asian dentists are adequately trained in implantology, and have you noticed regional differences?

In the vast majority of countries worldwide, dental implants are not part of the university curriculum of dental professionals. This is also the case in Asia Pacific. Therefore, continuing medical education provided by implant manufacturers and others is important. The level of education in implant dentistry amongst Asian dentists has increased dramatically in the past few years and, as already mentioned, an increasing number of dental practitioners in Asia have received international education. Universities in the region, including the University of Hong Kong, have also started to offer master’s courses in implant dentistry.

One should not forget smaller dynamic markets, such as Hong Kong, Singapore, Malaysia and Thailand, which achieved annual growth rates of around 20 per cent before the economic crisis and are expected to return to similar levels once the economy picks up. The level of education and training amongst Asian dentists has increased dramatically.

Patients want safe, reliable solutions with predictable long-term results in order to enable dental professionals to meet these requirements. Straumann engages in a broad range of educational activities across all specialisations at all levels of expertise, such as for surgeons, periodontists, prosthodontists, dental technicians and hygienists. These educational activities are offered in collaboration with our global academic partner organisation the International Team of Implantology (ITI). Both Straumann and the ITI share the same passion for science-based innovation and the highest standard of education with the aim of promoting the quality of patient care in implant dentistry.

The ITI furthers expertise in implant dentistry in many other ways, including through the publication of the ITI Treatment Guides, which are now also available in Japanese and Chinese.

In order to broaden the pool of speakers to disseminate expertise on implant dentistry, Straumann also orchestrates speaker development programmes in Asia; one of the sessions runs parallel to the Asia Pacific Dental Congress (APDC).

The pool of highly educated Asian dentists also fuels a very active research community in the region, and our academic partner ITI has funded a number of research projects from Asia.

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Have you experienced a slowdown in the dental market? How is the current state of the global economy?

Treatment with dental implants is an elective procedure that in most cases is paid out of pocket by the patient either completely or substantially. In the current economic uncertainty, patients are therefore postponing treatment, and we have seen the number of patients decrease in many markets. In the current economic context, patients seeking treatment tend to be more cautious in evaluating treatment and put more emphasis on product quality. This favours the few companies like Straumann that emphasise the highest product quality, safety and scientific backing. The quality and experience of the dental professional performing the treatment is also becoming a more important factor for patients.

Because of the current economic environment, many customers have been reducing their inventories. Also, dental labs are becoming more hesitant to invest in equipment, such as CAD/CAM scanners.

However, this is only a temporary phenomenon and will result in a stronger demand once the economy picks up again, as the patients' needs for full oral function and aesthetics will not have disappeared. Furthermore, the consequences of delaying treatment or using a 'cheap' solution will cost the patient more in the long term. Healthy dentition is more than a consumer product and contributes to long-term quality of life.

In order to survive in the future, dental laboratories will have to automate, consolidate, outsource or specialise. Investment in CAD/CAM technology (scanner and/or milling machine) is a sufficient means of automation to increase productivity. In lab scanning with third-party centralised milling is the only realistic model for the majority of laboratories.

In the case of Straumann, 50 years of history, evidence-based innovation and the highest quality, resulting in safe, reliable and aesthetic solutions, allow us to differentiate and weather the storm.

You will be exhibiting at the APDC in Hong Kong. Would you please tell us what you have in store for the visitors?

I believe the organisers of the APDC have succeeded in putting together a very attractive, high-calibre scientific programme. This will be complemented by corporate sessions, such as the Straumann seminar on Sunday afternoon with Prof. Jürgen Becker and Dr. Frank Schwarz, who will present their latest clinical research on concepts to improve osseointegration of dental implants, indicating the positive effect of the SLActive implant surface on osseo-integration and the outcome of bone augmentation procedures in particular.

In addition, you have announced that you will be introducing the SLActive implant surface and your new Bone Level Implant to markets in Asia this year. Could you tell us more about that and what else dentists can look forward to in 2009?

Both SLActive and the Straumann Bone Level Implant have been introduced in Europe and North America with overwhelming success. With the scientifically proven benefits of the SLActive implant surface, cent of implant units sold. The SLActive surface has been proven superior to both the TiUnite and Nanofill surfaces in head-to-head pre-clinical studies.

We are looking forward to introducing SLActive in China and Korea this year. Do you have any plans for the Asian markets, except for Japan, that is already available.

The SLActive surface is available on all our implants including the Straumann Bone Level Implant, which provides new confidence at bone level through optimized crestal bone preservation, simplified handling owing to the new CrossFit Connection and pleasing aesthetic results thanks to improved soft tissue management.

In its first year on the market, the Straumann Bone Level Implant has captured a 5 per cent share of the bone level segment. The Straumann Bone Level Implant will be introduced in Korea and China in the next few months and is already available in all other Asian markets, except Japan.

With the very successful Straumann Tissue Level Implant, Straumann now offers a complete system for all indications that can be used with the same surgical kit. In the near future, our Asian customers can also look forward to the introduction of Straumann CAD/CAM prosthetics and guided surgical solutions.

At the IDS in Cologne your company also announced a new partnership with Ivoclar Vivadent that aims to expand your prosthetic range with high-aesthetic ceramics.

Where do you see this range to be available in dentistry in Asia?

We are very excited about this partnership combining Ivoclar’s expertise in ceramic materials and final restorations with Straumann’s strength in implant and CAD/CAM solutions. For selected Asia Pacific markets, we expect a limited market release in the beginning of 2010, followed by the full market release during the course of 2010, pending regulatory approvals where necessary.

Thank you very much for the interview.
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Vibringe: The next level of endodontic hand irrigation

Vibringe is the first endodontic irrigation device that enables easy and safe manual delivery and activation of the irrigation solution in only one step. A patented microprocessor inside the handpiece delivers precisely tuned sonic energy to the irrigation solution to be injected in the root canal. According to the company, the sonic flow within the solution enriches and completes the irrigation procedure, improving the success rate of endodontic treatments less predictable. The average endodontic failure rate is still over 40 per cent and, in 50 per cent of these cases, the failure is caused by poor instrumentation.

With its aesthetic appeal and an LED light for patient comfort, the lightweight and cordless design makes the Vibringe a handy device for the endodontic practice. The sonic flow technology ensures that air and debris blockages are removed effectively, and aids the irrigation solution in reaching and disinfecting all portions of the canal to the apex. Owing to the downward and upward motion of the irrigation solution, tissue residues and debris in the finest lateral canals and tubules are loosened and transported out of the canal.

The Vibringe can be used for all endodontic irrigation procedures and is compatible with all the irrigation solutions available on the market. When used correctly with endodontic needles (side-end opening), it can also prevent solution and debris being expressed through the periapical foramen.

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2 - 5 September 2009
Singapore

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LEIPZIG, Germany: Progressive Orthodontics, a global orthodontics education provider in the US, has announced the start of their first Orthodontic Case Competition. The contest is available online at the website progressivecasecompetition.com and open to general practitioners around the world to show off their cases, comment in discussions and vote for a deserved winner.

According to the company, orthodontic cases have to be submitted by 1 June 2009 for review on their forum. The prize is $500 credit towards any of Progressive Orthodontics or Progressive Dentistry’s premium CE seminars, including their popular seminars in Advanced Ortho, Endo, Pain Management, Extractions and Implants. The winner will be determined 75 per cent by viewers’ votes and 25 per cent by expert and company founder Dr Don McGann.

“We are excited to showcase the quality ortho that GPs can do and create community discussion to elevate the work in the field,” Dr McGann said. “We urge everyone to participate in what we feel will become a prestigious and popular competition.” He added that dentists who’d like to integrate quality orthodontics into their practices can win a free seminar from the company’s Comprehensive Orthodontic Series by entering the Impressed Viewer Raffle.

Progressive Orthodontics is offering a number of orthodontic seminars in Singapore this year. Their programmes will be joined by leading instructors, such as Dr Swaroop (USA), Dr Hymer (Australia), Dr Hagens (Holland), and Dr Tossolini (Argentina). The company also offers their programme in Australia and New Zealand.
More power, shorter curing times—does that make sense?

Dr Arnd Peschke
Liechtenstein

Currently in dentistry, there is an evident trend towards easier and faster applications, as well as shorter reaction and processing times. The curing time of high-power curing lights is evidence of this trend. Does the trend make sense?

Yes, depending on how users interpret this trend and how they benefit from it. For example, bluephase 20i offers a cordless, high-performance LED light that features an emission spectrum similar to halogen and a maximum light intensity of 2,000 mW/cm² (Fig. 1). The unique 'poly-wave' technology of the bluephase family allows consistent curing of all composites regardless of the initiator system used and offers, above all, a reliable restorative therapy owing to its high intensity. A positive side effect is that curing is achieved in a relatively short time (Fig. 2).

Bluephase 20i thus allows certain composites, such as Tetric EvoCeram and IPS Empress Direct, to be polymerised in just 5 seconds (Figs. 3–5). Other materials are polymerised in 10 seconds at most. It must be emphasised that the maximum capacity of bluephase 20i does not need to be applied in every situation; rather, the intensity of 1,200 mW/cm² offered by the Turbo programme should be viewed as a hidden reserve that can be used if needed in particular situations.

In order to prevent overheating the tissue, the Turbo programme is limited to 5 seconds. This is an additional measure to increase the reliability of the treatment. Should a user not be comfortable with the curing times of the Turbo programme because of concerns regarding polymerisation stress forming in the composite, he or she can use the High Power programme (1,200 mW/cm²), the Low Power programme (650 mW/cm²) or the Soft Start programme, which features a reduced intensity (at most 650 mW/cm²) for the first five seconds and then emits an intensity of 1,200 mW/cm² to ensure complete curing in the following 10 seconds (Figs. 6–9).

Particularly in the case of indirect restorations, bluephase 20i offers a more reliable penetration of the ceramic restoration and more confidence of thorough curing of the luting composite than weaker lights owing to its optional high intensity (Figs. 10–13).

Of course, nobody will plan for a shorter treatment time for their patients just because the application time of their new adhesive is 10 seconds shorter than that of the previous adhesive or because the curing time per composite increment is reduced from 40 to 10 seconds. However, the time-saving capacity of bluephase 20i is a factor worth considering in the case of indirect restorations, where up to 50 seconds of curing for each aspect and millimetre of ceramic
thickness may be saved compared with a halogen light.

Despite the impressive power of the Turbo programme, bluephase 20i is suitable for continuous operation, as the fan is virtually noiseless and does not require mains operation because of its powerful battery. Should the battery run low nonetheless, the battery-operated light can be transformed into a mains-operated unit immediately, by simply attaching the cable of the charging base to the bluephase 20i handpiece (Click & Cure option; Fig. 14).

Other, less obvious features complete the ergonomic and technically elaborate design of bluephase 20i. An example is the integrated movement sensor, which allows the unit to switch to the power-saving stand-by mode when not in use, switching automatically back into operation as soon as the user touches the unit.

The bluephase 20i sets the standard with its performance and handling; it can be compared to a car with a powerful engine and numerous, elaborate technical features that improve safety and comfort. Just as a powerful car needs to be handled responsibly, the high power of bluephase 20i should not be understood as an invitation to ‘speed’ permanently in the Turbo programme. Rather, it is intended as a means to ensure that the required resources are available if needed. The added performance therefore fulfils a purpose. It is up to the user to employ the versatility and the full potential of bluephase 20i according to specific needs, in order to improve efficiency in the practice routine.
“Most people are worried it is often something worse.”

Dr Nick Rote. East Finchley, UK

1 in 3 people suffer from dentine hypersensitivity and over 50% of sufferers don’t mention it to their dental professional.\(^1\) Research shows that this may be because they fear it requires major dental work, the pain may be variable so they don’t report it or because they may be using techniques to try and avoid the pain.\(^2\)

These findings highlight the important role that dental professionals play in actively diagnosing dentine hypersensitivity.

Recommendating daily brushing with Sensodyne is a simple, effective solution which is clinically proven to reduce the symptoms of dentine hypersensitivity.

“When they come back to see me next time, they’re very pleased that the solution was given to them so easily.”

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\(^2\) Canadian Advisory Board on Dentin Hypersensitivity, Consensus-Based Recommendations for the Diagnosis and Management of Dentin Hypersensitivity, J Can Dent Assoc 2003; 69(4): 221-226

*Sensodyne is a registered trade mark of the GlaxoSmithKline group of companies. Further information is available on request.*
“Dentine hypersensitivity is not a new disease”

Interview with Dr Jolán Bánóczy, Hungary

Dentine hypersensitivity is recognised as a common dental condition and has been referred to as the ‘common cold of dentistry’. While worldwide studies reveal its pandemic nature, significant under-reporting compounds the problem. Up to 40 per cent of patients do not consult a dental-care professional about this pain, leaving the condition susceptible to under-diagnosis. Dental Tribune Editor Claudia Salwiczek spoke to Dr Jolán Bánóczy, Professor Emeritus of the Semmelweis University (Budapest, Hungary), about the basics of dentine hypersensitivity and what dentists can do to treat or prevent the condition.

Claudia Salwiczek: Would you explain dentine hypersensitivity to our readers in short?

Dr Jolán Bánóczy: Per definition, which was suggested by Dr Dowell and Prof. Addy of the University of Bristol Dental School (Bristol, UK) in 1983, dentine hypersensitivity is a short, sharp pain arising from exposed dentine in response to stimuli typically thermal, evaporative, tactile, osmotic or chemical and which cannot be ascribed to any other form of dental defect or pathology. Although sensitivity can occur in any area on the tooth, the most common is the exposure of cervical dentine and that of the root surface.

How common is this condition?

Dentine hypersensitivity is a common clinical finding with a wide variation in prevalence values. And it is not a new disease: more than a hundred years ago, Dr Gysi discussed dentine hypersensitivity in the dental literature, describing the fluid movement in the dentinal tubules. Sixty years later, Prof. Brännström, Royal School of Dentistry (Stockholm, Sweden), investigated the development of dentine hypersensitivity and confirmed the hydrodynamic theory. Since then, many others have dealt with the problems of its symptoms, pathogenesis, differential diagnosis and therapy.

The growing interest today may be attributed to improving oral health and to the presence of more teeth at an older age as a consequence of decreasing caries prevalence. On average, dentine hypersensitivity occurs in 40 per cent of adult patients. The age distribution of between 20 to 50 years is considerably large, peaking between 50 to 40 years, with a significantly higher number of women being affected. Among patients who bleach their teeth, the occurrence can be even higher, reaching 75 per cent. However, only about 50 per cent of people suffering from dentine hypersensitivity actually consult their dentists or dental hygienists of which only 50 per cent receive appropriate treatment.

What are the typical symptoms and causes of dentine hypersensitivity?

As mentioned earlier, the typical symptom is a short, sharp pain caused by stimuli at the exposed dentine. Two factors generally lead to dentine hypersensitivity: dentine exposure and the opening of dentinal tubules.

Dentine may be exposed through gingival recession, the loss of enamel or periodontal tissues, resulting from a combination of physical and chemical forces. For a long time, dentine exposure was thought to be the result of inadequate oral hygiene techniques, namely toothbrushing. Today, the focus has shifted to the abrasive effect of toothpastes. This is insignificant on its own but may be included in the aetiology when combined with other factors. Erosion is likely to cause buccal cervical lesions as intrinsic and extrinsic acids may enhance the abrasive impact of toothpastes and open the dentinal tubules by removing the smear layer.

Abrasion can also damage the teeth. Owing to stress on gingival edges, apatite crystals at the cervical area become more susceptible to chemical (erosion) and mechanical (abrasion) forces, resulting in wedge-shaped defects, especially on canines and premolars.

Tooth wear caused by erosion, abrasion and attrition is a slow process, cumulating and usually undetected over many years. Over time, all these forces may lead to the opening of dentinal tubules, which is the key factor of dentine hypersensitivity.

What should practitioners do and what are the best treatment options?

Practising dentists should be aware of the possibilities of treatment, managing strategies and prevention. The response to dentine hypersensitivity has been largely treatment based for decades. Our present knowledge suggests that a combination of management strategies and treatment yield the best results. A differential diagnosis and the identification and elimination of aetiological and predisposing factors are indispensable.

The two treatment options for dentine hypersensitivity are the occlusion of the dentinal tubules, thereby blocking the hydrodynamic mechanism, and the blockage of neural transmission at the pulp. Management methods, agents and materials can be reversible and non-reversible.

What preventive measurements are available?

As with any other disease, dentine hypersensitivity can be prevented. The focus lies on three areas: oral hygiene, periodontal intervention and the avoidance of strong bleaching. New aspects are the appropriate timing of toothbrushing after consumption of acidogenic, erosive foods and beverages, as well as non-invasive (desensitising, potassium-nitrate/flouride containing toothpastes) and invasive (reconstruction with fillings, coverage of the exposed roots) treatment options. Continuous care of patients suffering from dentine hypersensitivity—in order to prevent more serious consequences (such as irritation of the pulp)—is advisable.
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Miniscrews—a focal point in practice

Six-part series by Dr Björn Ludwig, Dr Bettina Glasl, Dr Thomas Lietz & Prof. Jörg A. Lisson—Part III

Clinical examples (1)

Horizontal tooth displacement

Lack of space is one of the main reasons for the oblique positioning of teeth. One way to solve this problem is to create the necessary space. Conversely, premature loss of teeth or anatomical abnormalities may result in gaps that require modification for various reasons. For the correction of horizontal tooth displacement, miniscrews can be used, as these produce no undesirable reactive effects.

Distalisation

The first case (Figs. 1a–c) presented involves a frequently encountered problem: the patient’s molars had migrated in a mesial direction. This resulted in a marked loss of space in the region of the canines. The two treatment options in such a case are extraction or distalisation. In this case, distalisation was a viable option and extraction was unnecessary. Conventional techniques for distalisation (apart from the use of headgear) require support from other groups of teeth. Creating anchorage in this way has negative reactive effects. In the example under consideration, it is highly probable that protrusion of the anterior teeth would have resulted, should a conventional method for distalisation have been employed. Such negative results can be avoided by the use of miniscrews.

Miniscrews can be inserted in the vestibular and—as in this example—palatal areas. Vestibular insertion of a miniscrew (e.g. between the premolars) is always associated with the miniscrew’s eventual interference with tooth migration. When this occurs, the miniscrew must be extracted and a conventional form of anchorage/blocking (e.g. a ligature) must then be used. In this case, the presence of the primary molars represented a contraindication for insertion on the vestibular side of the premolar region. The para-median insertion of two miniscrews has several advantages. Firstly, the miniscrews provide a very solid basis for anchorage of the distalisation appliance. Secondly, they will never impede the movement of the lateral teeth. Even after successful molar distalisation, they can be used to stabilise the situation achieved for the remainder of the treatment. Thirdly, there is no risk of damaging other teeth because of an unfavourable spatial situation and/or incorrect insertion.

One disadvantage of the coupling necessary between the Walde Frog Appliance used (FORESTADENT) and the miniscrews (see Figs. 1a–c) is that cleaning becomes difficult. As large areas of the mucous membrane are covered, there is the risk of the development of peri-mucositis. If this develops further into peri-implantitis, premature loss of the miniscrews could result. A possible future alternative could be the use of "laboratory abutments" (Figs. 2a–d), which contain no plastics and can be used to couple the appliance with the miniscrews entirely hygienically.
Mesialisation
One of the most problematic areas of orthodontic therapy is the correction of the anterior displacement of teeth, and particularly of jaw segments. It could seem that the availability of miniscrews means that conventional appliances no longer need to be used at all. However, depending on the baseline situation and the nature of the required correction, the use of a combination of devices and appliances is recommended. This is often advisable and may even be necessary for biomechanical reasons, such as in a Class III situation. In the case shown in Figures 5a to c, forced transverse expansion of the palatine suture was used in combination with mesial displacement, applied by means of a Delaire-facial mask. The support provided by two miniscrews inserted in the paramedian region redirected the forces of sagittal and transverse movements almost entirely onto the bones. Dental side effects were markedly reduced.

Space closure
Owing to the availability of miniscrews, new therapeutic techniques can now be used, particularly for the management of the partially edentulous situation that obviates the need for compensatory extractions and the problem of the loss of stability of the units used for anchorage support. In light of the effect of Newton’s Third Law is particularly apparent, and the interception of the opposing forces is a major consideration within the therapeutic strategy. The orthopaedic closure of dental spaces using miniscrews is highly recommended if:

• there are no alternative, viable conventional methods and/or there is insufficient certainty that these will be effective;
• the extensive use of braces is to be avoided for cosmetic or functional reasons;
• a short-term treatment or partial treatment is required that does not involve correction and realignment of the basic dental arch;
• asymmetrical treatments are associated with the risk of midline displacement and the possibility of compensatory extraction;
• or a suitable dental baseline situation is to be created for preprosthetic treatments.

It is important to note that in cases in which space closure treatment is proposed, it must be ensured that the patient is aware of not only the risk but also the reality of the treatment, but also of the available alternative options, such as the use of bridges or implants.

There are three types of space closure.

Anterior space closure (e.g. in displacement of the lateral incisors)
Orthodontic space closure is frequently indicated if there is a gap in the anterior row of teeth, particularly in the region of the lateral incisors. The undesirable effects of conventional therapeutic techniques and the displacement of the midline and/or negative inclination of the anterior teeth. If miniscrews are used for the stabilisation of the median incisors (Figs. 4a-c), such effects can be avoided. A stable, rigid steel arch with a size of at least 0.04 mm by 0.04 mm (10 x 25) attached to two miniscrews inserted in the median or paramedian region can be used to stabilise the anterior teeth. Using the standard vestibular mechanical techniques, the gap can be closed without altering the position of the incisors.

En masse or canine retraction (e.g. where the premolars are missing)
Miniscrews can also be used as an aid in this form of treatment (Figs. 5a-c). In contrast with the conventional appliances, there is no loss of anchorage but rather a biomechanical benefit in terms of more favourable direction of forces. If the miniscrews and the fitting of the active element (traction spring or elastic chain) are positioned at the same level as the resistance centre of the canines, physical movement of the tooth (or teeth) is possible.

Space closure in the molar region (e.g. to avoid the need for prosthetic measures)
Premature loss of the primary molars has not yet been eradicated despite all the advances made in prophylactic treatments. There may be aneeded for appropriate therapy, particularly in cases in which there is a space closure caused by tooth caries (Fig. 6a-c). What should the patient be offered—implants, bridges or space closure treatment? With a view to the realistic long-term prognosis for the anchorage tooth, conservation of the surviving natural teeth, and the minimisation of the effects on the existing materials, a prosthetic solution would not appear to be appropriate. The basic concept of restorative dentistry—first destroy, in order to reconstruct—is frequently not the best solution. Let us assume that the strategy adopted is to mesialise tooth 27, in order to treat the arch as a natural method—for the loss. The skeletal anchorage means that undesirable side effects, such as reciprocal space closure, are avoided. Only a few elements (brackets, springs etc.) are needed to support the mesial movement. The treatment remains invisible to the casual observer, while in comparison with the stated alternatives, it is very cost-effective and provides for a high level of conservation of the natural teeth. The prognosis for the long-term preservation of the natural teeth is very good.

Vertical tooth displacement
Any displacement of the teeth along the vertical axis can present a cosmetic and/or functional problem. The solution is extrusion or intrusion using skeletal anchorage. This technique is very simple to implement and very cost-effective.

Extrusion
Extrusion using miniscrews may be used for single teeth (Figs. 7a & b) and for groups of teeth (Figs. 7a-c). The tooth was repositioned using a straight wire appliance. In the case of a bite that exposed tongue and bone (Figs. 8a & b), the approach adopted was to provide the expansion and protrusion of the anterior teeth. Intermaxillary rubber traction braces connected to miniscrews in the lower jaw were used. If the braces had been connected to the lower anterior teeth, undesirable extrusion of these would have resulted (every action has an equal and opposite reaction). Because of the small root surface, this process would have occurred in a much shorter space of time than in the case of the upper anterior teeth. The opposing bone in the lower jaw prevented this undesirable reactive effect.

Intrusion
This open bite with extrusion of the tongue (Figs. 9a & b) was treated by means of intrusion of the molars and consequent causal reaction of the maxilla. Miniscrews were inserted in the first and second quadrants in each arch, in the case between the canine and the first premolar. A Titan Upright Spring (FORESTADENT) was attached to the capstan of the miniscrew, and the screw was set to intrusion. There was even some overcorrection of the positioning of the first molars on both sides after five months’ intrusion, resulting in closure of the frontal bite.

Conclusions
It may be necessary for therapists to overcome logistical and emotional barriers before they can begin to employ miniscrews, but it is only when they are used that their versatility becomes apparent. Miniscrews make our routine work that much simpler. They enhance the efficiency and effectiveness of many dental applications, resulting in an overall improvement in treatment quality. [iii]

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When Dr Frei was chosen to lead the emergency dental unit during the Championship, he asked me to draw up plans for it. The 52 games played over the 17 days of the Championship are equal to a season of the Swiss Ice Hockey League. Aside from the injuries in the games, we also treat players during training sessions, as well as all the other staff members of all eight qualified teams. In total, we provide dental care to 500 to 600 people—which is quite a workload!

Our team consists of Dr Frei, Marco Frei, two assistants and me.

Are you paid for your services?

Dr Scheidegger: Our work during the Championship is voluntary, and we are only paid for certain treatments and our expenses. But as a fanatic ice hockey fan, I benefit through being able to watch all the games.

Ice hockey is a full-contact sport and body and board checks, as well as sticking the opponent, occur regularly throughout a game. Fist fighting is also part of the game’s culture and can result in tooth fractures or even tooth losses. Which injuries are the most common?

Dr Scheidegger: Generally, teeth and ice hockey sticks do not go well together. However, unusual accidents also happen occasionally, for example, when a skate runner breaks off a maxillary central incisor. Physical impact comes from all parts of the opponent’s equipment and even collision with a helmet can mean work for us. Luckily, accidents caused by direct hits with the puck are very rare but when they do occur, they cause serious damage. Soft-tissue injuries and crown fractures without pulp exposure, however, are very common.

How does the dental emergency unit work?

Dr Scheidegger: During a game, we have to decide quickly if the player needs further treatment or is able to play. What we can do on-site, for example, is treat intra-oral soft-tissue injuries caused by blows to the mouth guard, and seal open injuries of the dentine. After dislocations and avulsion, bones are immediately set and splinted in the dental office. Fractures with out-of-pulp exposure are treated either provisionally or later in the dental office.

Does treatment usually continue after the games?

Dr Scheidegger: Owing to the charged environment, players are very resistant to pain during a game. In the dental chair, this changes immediately. If we decide upon a special treatment, we admit the patient to our practice in Bümpliz near Bern, where another dentist is on standby. When injuries turn out to be more serious than originally expected, we treat the patient facial either after the game or the next day when the practice opens.

When does final treatment take place?

Dr Frei: In most cases after the end of the player’s career. We do not take special measures here and act in accordance with traumatology guidelines.

Do you cooperate with the dental clinics of the University of Bern and do you admit players to them, if necessary?

Dr Scheidegger: Of course. A player is admitted to the University dental clinic if the jaw bone has sustained an injury that is more serious than dislocation. The specialists there can make decisions and take measures for which we are not qualified.

Mouthguard in situ with impressions for the lower jaw. (DTI/Photo Dr Th. Jaeggi)

What do you do when a tooth is knocked out?

Dr Scheidegger: Teeth that are fragmentated or avulsed are stored in ice arts, for example, in special tooth rescue boxes like the SOD Zahntrockenbox. If the teeth are set on-site, if possible, and provisionally splinted while the player is prepared for transit.

Who pays for your charges?

Dr Scheidegger: All the players are covered by insurance and the International Ice Hockey Federation requires every player to give proof of insurance. Our charges are reimbursed through these insurance policies.

Hockey League in the US, a number of these accidents have already occurred—neck protection is not mandatory in the US. In Switzerland, neck protection was recently made non-compulsory.

Although he was playing with a visor, NHL Star Dan Heatley almost lost his leg during a friendly match in Bern. His limb shifted slightly during a fall and he was hit near the cheekbone by a puck. Prevention of such accidents would require full protection with a grille or plexiglass and a mouth guard but, as proven by the latest play-offs, players will go to the extremes to win a game. Apiering look and a few missing teeth have a more important effect on the opponent than a grille, which hides facial expressions. For these reasons, full facial protection is professional ice hockey is unlikely to be achieved in the years to come.

In my opinion, however, visors, mouth guards and neck protectors should be made mandatory. We also need more and tougher penalties for checks against the head, from behind or against the board. I cannot understand why there are dentists that still use neither visors nor mouth guards.

Why don’t all hockey players wear mouth guards and why don’t insurance companies or associations not make them mandatory?

Dr Frei: As far as I know, all SC Bern players wear mouth guards during their games but not during training sessions, which is when more injuries definitely occur. Unfortunately, there are players who still wear mouth guards from unlicensed manufacturers that do not offer sufficient protection.

Convincing insurance companies to make mouth guards obligatory is a matter that has not been raised. Periodically, we ask them to add mouth guards to the list of expenses they cover for protection against injury of the teeth. Unfortunately, our efforts haven’t been successful.

How can tooth accidents be prevented and should prevention begin with youth development work?

Dr Scheidegger: In Switzerland, players under the age of 18 have to wear full protection. Other players, however, remove their grilles after they reach that age. Some years ago, SC Bern Manager Chris McSorley made players play with full protection as punishment after a lost game. Such measures give the wrong message to players and do not increase the acceptance of full protection.

Thank you very much for the interview.
Dr Darren Yap
Malaysia

2009 kicked off with MDA’s first event of the year and it was a cracker. A record turnout of approximately 550 participants (latecomers had to be turned away) with a large representation from both the private and government sectors contributed to its success.

Hotel Istana once again hosted the event with a trade exhibition of over 80 booths occupying the three halls. Participants thronged the exhibition in search of the latest products, bargains and freebies.

Two hands-on sessions initiated the convention on Friday, 16 January which were conducted by the following:

• Dr Leslie Ang: ‘Endodontic Retreatment’
• Dr Daniel Fang: ‘Veneers-How to’

Datin Dr Norain Abu Talib once again graced the occasion with her presence during the opening ceremony by declaring open the convention on Saturday 17 January which was attended by various VIPs of the dental profession from all corners of the nation. The following were the speakers and their presentation topics:

1. Prof. Dr. Lakshman Saramanayake (Johnson & Johnson) Topic: Managing Biofilms for Optimal Oral & Systemic Health
2. Dr Professor Roger Ellwood (Colgate) Topic: New approaches to detection, monitoring and treatment of early carious lesions
3. Dr Leslie Ang (Dentsply/Servicom/Carl Zeiss) Topic: Endodontic Retreatment: Master the Science and Excel in Clinical Techniques
4. Dr Daniel Fang (3M) Topic: ‘To veneer or not to veneer?’
5. Dr Gianluca Gambarini Topic: An introduction to New NiTi Files (TF Files) & Forward movement on rotary
6. Dr Geoffrey Speiser Topic: Practical application of a breath clinic in a dental practice

A concurrent oral presentation and poster presentation was held with winners walking away with prizes. Sunday ended with a 60 minute Q&A session with the Oral Health Division of the Ministry of Health (MOH). This was a first of its kind and was very well received by the attendees. Led by Datin Dr Norain herself and her team of representatives from the MOH, questions and doubts from the dental fraternity were dealt with ranging from autoclave and compressor licensing to toilet doors and illegal dentistry.

Many thanks to the sponsors, members of the dental trade, volunteers from the Dental colleges and others who have contributed in one way or another to the event. And kudos to the organising committee led by Dr V. Nedunchelian.

Fig. 3: Guests of Honour Dr Norain Officiating the Trade
Fig. 4: Participants in the lecture hall
Fig. 5: The Organising Committee
Fig. 6: The Organising Committee
Fig. 7: The Organising Committee
Fig. 8: The Organising Committee
Digital Dentistry, the challenges and benefits

About the APDF/ICCDE and USM (Universiti Sains Malaysia) Joint Scientific Seminar

Currently, information technology (IT) is an important factor in every aspect of life which does not exclude dentistry. With the technology, dentists can have better diagnosing tools and more accurate treatment planning and techniques with less hassle and unnecessary procedures. All these will lead to better and more efficient service and care for the patients.

IT can be used in most of expertise in the dental office, from the front office (patient's record management) to the lab-work, orthodontics, maxilla-facial surgery, the finance office (on e-payment, etc.). The Advanced Medical and Dental Institute of the Universiti Sains Malaysia proudly supports the use of modern and latest technology in providing state-of-the-art service towards patients’ care. This seminar is a joint seminar with ICCDE/APDF, ensuring that its member countries can benefit also from this technology.

The Organiser

The organiser of the joint scientific seminars consists of several agencies from various background in the field of dentistry, namely:
1. APDF (Asia-Pacific Dental Federation-South East Asia Region)/ICCDE (International College of Continuing Dental Education)
2. MDA (Malaysian Dental Association)
3. Advanced Medical and Dental Institute (AMDI) Universiti Sains Malaysia (USM)
4. MAMPU
5. MSC (Multimedia Super Corridor Corporation, Malaysia)

Theme

Digital Dentistry, the challenges and the benefits: Exploring IT as a tool in dentistry

Time

15-16 August 2009

Venue

Penang (Vistana Hotel)

Invites

• Heads of delegates of APDF member countries (around 70)
• Dentists (government and private practices) from Malaysia and abroad
• Students (Dental school, dental nurse academy and others)

Participation Fee

• RM 550 (Local dentists/Members of the Malaysian Dental Association)
• RM 200 (Students)
• USD 300 (Foreign dentists)

Program Highlights

Day 1

• Digital Dental Patient Management
• Digital Orthodontics
• Digital Endodontics
• Digital Maxillo-Facial Reconstruction
• Digital Radiography
• Digital Dental Education

Day 2

• Workshop/Hands-on Training 1
• Workshop/Hands-on Training 2

ICCDE Convocation Ceremony

News from the Middle East

1st International Congress for Yemen Dental Association

Sanaa, Yemen, 26-28 November 2008

Under the patronage of the President of Yemen Republic, His Excellency Ali Abdallh Salih, the congress opened with the Minister of Education and many presidents of national dental associations and societies from inside and outside the Middle East present. I saw the Vice President and regional representative was invited for the federation as VIP guest to the 1st International Congress for Yemen Dental Association, held in Sanaa the capital city of Yemen from 26-28/11/2008.

I gave a speech at the Opening Ceremony of the congress and talked briefly about the Asia Pacific Dental Federation, the Asia Pacific Regional Organization APDF/APRO and ICCDE as well as the benefits of their membership. I was also talking about the workshop held in Chennai-India and other activities of the APDF and advised the audience to attend the 31st APDC to be held in Hong Kong from 7-11 May 2009. At the end of my speech I invited the Yemen Dental Association and the other associations and societies to apply for a membership to the APDF/APRO. After my speech three associations and societies Yemen, Oman and Qatar applied for the membership to the APDF/APRO. Others have announced to apply later.

15th Oman Dental Society Congress & 2nd International Congress

17-18 December 2008

16th Alexandria International Dental Congress (AIDC2008)

Alexandria, Egypt, 28-31 October 2008

I was invited by the Egyptian Dental Association (EDA) to participate in the Alexandria International Dental Congress as a speaker. The Congress was held in the beautiful city of Alexandria in Egypt.

International Lebanese Dental Association Congress

16-18 October 2008 (Ordre des Dentistes du Liban)

The Lebanese Dental Association is one of the active members in the APDF/APRO with president Dr. Karam, and our friend Dr. Kalash the Vice President who represented his association in the 30th APDC in Bangkoks invited me to represent the APDF/APRO at their International Congress which was held in Beirut, the capital of Lebanon. I was given the chance to speak about the federation and the upcoming 31st APDC Congress in Hong Kong at the closing ceremony.

Calendar 2009

• 31st Asia Pacific Dental Congress
  Date: 7-11 May 2009
  Location: Hong Kong
  Contact info@apdc2009.org
• 16th Turkish Dental Association Dental Congress
  Date: 25-27 June 2009
  Location: Istanbul, Turkey
  Contact: info@tdd.org.tr; Prof Murat Akkaya, President/Turkish Dental Association, makk1@hotlon- gresi.com
• Pharmacy College Conference
  Date: 10-12 October 2009
  Location: Riyadh, Saudi Arabia
  Contact: info@sdam.org
• Syrian American Canadian Conference
  Date: 14-16 October 2009
  Location: Damascus, Syria
  Contact: Syrian Dental Association
• Bahrain Dental Society Conference
  Date: 30-October 2009
  Location: Bahrain
  Contact: info@bdsm.org.bh
• 6th Gulf Conference
  Date: 11 November 2009
  Location: Saudi Arabia
  Contact: info@sdam.org

Special thanks to Dr. Al Jishi for helping me gathering this information.

Yours Sincerely,

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Sacramento, CA, USA
Oct 23-26, 2009
Feb 19-22, 2010
Dr. Joseph Viviano, DDS

Dubai, UAE
March 23-26, 2010
Dr. Bernard Lee, DDS

Hong Kong
June 4-7, 2010
Dr. Bernard Lee, DDS

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