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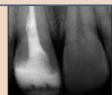
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Rare oral condition declared an autoimmune disease

Daniel Zimmermann

DTI

NEW YORK, USA/LEIPZIG, Germany: Patients suffering from a very rare condition that affects the oral mucosa may soon be offered some relief by new research conducted in the US. In a recent study, scientists from Tufts University near Boston claim to have found evidence that chronic ulcerative stomatitis (CUS), characterised by recurring and painful ulcers, is mainly caused by an autoimmune response by the body that destroys the binding of cells inside the surface tissue layer of the mouth.

According to the scientists, only a dozen cases of CUS have been reported worldwide since the condition was first clinically identified in 1989 but the number may be higher, as patients may remain undiagnosed owing to the extensive testing procedure and low awareness amongst dental clinicians. While it was known that patients with CUS have specific auto-antibodies, researchers had not been not able to determine the extent to which these contributed to the condition. With help of the new findings,



CUS chiefly occurs in middle-aged Caucasion women. (DTI/Photo ostill)

CUS could now be classified as an autoimmune disease in order to allow better management of the symptoms.

Owing to its unique resistance to standard medication like corticosteroids, successful treatment of CUS has been achieved only in some cases through hydroxy-chloroquine, a prescription drug primarily

used to prevent malaria, as well as to treat rheumatoid arthritis and lupus. By better understanding the mechanisms linking the autoimmune response to ulcerative sores, new approaches could be developed to treat patients suffering from the condition, the scientists said.

So far, CUS has been found chiefly in middle-aged Cau-

casian woman. It can only be diagnosed by surgical biopsy using immunofluorescent microscopic examination done by an outside laboratory. In normal clinical settings, it may be mistakenly identified as oral erosive lichen planus, another more common chronic condition affecting mucosal surfaces and also thought to be an autoimmune disease.

Ortho study gives HK people a bad note

People in Hong Kong should brush up on their knowledge of misaligned teeth (malocclusion). According to a new survey conducted by the city's Society of Orthodontists on more than 1,000 participants, four in five people did not know that it can lead to long-term dental complications, such as temporomandibular disorders or impaired speech and chewing dysfunction. Most saw major consequences for their social life, including loss of attractiveness and self-esteem due to conditions like crowded teeth, crossbite or overbite.

The findings confirm results of earlier studies that showed that Hong Kongese generally lack knowledge of the consequences of bad oral health. The last national survey on the matter conducted in 2001 revealed that only 30 per cent of adults seek regular dental check-ups. Over 50 per cent also considered tooth loss as a nature eventuality in life. In terms of oral health, Hong Kong currently ranks similar to other developed countries in the region.



The skull of a Labidosaurus namatus alnosaur. Biologists from the University of Toronto in Canada have recently found signs of oral infections in the fossil, making it practically the oldest toothache ever recorded. (DTI/Photo Prof. Robert Reisz, Canada)

Mouth enzyme could fight caries

Japanese researchers have discovered that the FruA enzyme produced by the *Streptococcus salivarius* bacteria, a harmless inhabitant of the human mouth, inhibits the development of oral biofilms or plague. The discovery could lead to more efficient oral health products to fight caries.

Dental stem cell bank expands

India's first private dental stem cell bank has announced plans to expand into 10 major cities including Chennai and Bangalore within this year. Founded by Stemade Biotech, a Indian-French joint venture, the institution currently operates two branches in Mumbai and New Delhi.

Southern India troubled by fluoride

The health of residents of Bangalore and neighbouring villages in India is under threat by increasing levels of natural fluoride in their drinking water, the national newspaper *The Hindu* reports.

According to the latest tests by the country's Department of Mines and Geology, the amount of the mineral found in water reservoirs beneath the city recently exceeded the limit for human consumption by 400%. If consumed over a long period, high amounts of fluoride can significantly contribute to skeletal and dental fluorosis, a condition that weakens bones and teeth.

Experts said that the fiveyear high may be due to deeper sunk wells that strike fluoriderich ground water at depths of 500 metres.



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Australia spends millions on kids oral health study

Four times more children admitted to dental hospitals than in the UK

Daniel Zimmermann

HONG KONG/LEIPZIG, Germany: As part of a multi-million dollar health funding package, the Australian Coalition has granted the University of Adelaide in South Australia AU\$1.3 million (US\$1.36 million) to investigate poor oral health in children. The study will be conducted nationwide over four years and involve more than 30,000 participants from private and public

According to a governmental survey, teenage children in Australia have an increased risk of developing dental diseases. Every year, over 20,000 children are admitted to hospitals for dental work, a significantly higher number compared with other countries like the UK, where slightly over 5,000 admissions were recorded in 2009.

Researcher Professor John Spencer from the Australian Research Centre for Population Oral Health, who will also lead the study, said that it will look at the organisation and delivery of dental services for children, as well as compare the use and clinical outcomes of school dental services and private dentists. He said that



Children in Australia have an increased risk of developing dental diseases. (DTI/Photo Shane White, Australia)

his institute will be partnering with all eight state and territory public dental authorities, who will be committing an additional AU\$1.7 million (US\$1.78 million) to the project.

"Public programmes like the school dental services are not reaching as many children, yet private dental services may be out of the financial reach of many families," Prof Spencer said. "The challenge is to identify and eliminate barriers to dental health services in Australia, improving service delivery, reducing risks and promoting healthy diets."

Australia currently spends less than the US and countries in Asia and Europe on public health care, a 2009 study by the Organisation for Economic Cooperation and Development has found. The funding for a universal dental health scheme, a key motivation for the Green Party forming a coalition with Labor in the last national election, was recently scrapped from the federal budget by the Ministry of Health. DI

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"The Japanese people will recover from this disaster quickly"

An interview with Eiichi Nakanishi, President and CEO of NSK Nakanishi, Japan

Eiichi Nakanishi is relieved. His company NSK Nakanishi and its staff were unharmed by the 11 March earthquake and subsequent tsunami. Like most Japanese companies, the manufacturer of handpieces and other dental equipment has an obligation to serve its customers in any circumstances. This is the reason Nakanishi says the company is currently working overtime, despite the occasional black-outs, which are still restricting business operations in the country.

Established in the 1930s, NSK has had to face a number of obstacles during its 80-year history, in addition to natural disasters. Production of dental handpieces, for example, had

to be stopped in 1945 owing to World War II and was not resumed until 1951. Since then, the small company from Tokyo has evolved into a major international dental player with several business branches outside of Japan. NSK $operates\,not\,only\,in\,major\,markets$ like the US or Germany, but also in China, Dubai, France, Spain, Australia and the UK. Recently, a representative office was established in Singapore to enhance sales and services to customers in the Southeast Asian region.

Since NSK conducts most of its sales overseas, the recession that hit the Japanese economy in 2009 had little impact on overall business results. This relative independence of domestic sales also gave the company the opportunity to invest in new technologies. As a result, NSK launched seven new products at this year's International Dental Show (IDS) in Cologne that, according to Nakanishi, will



Eiichi Nakanishi, President and CEO of NSK Nakanishi, Japan. (DTI/Photo by NSK Nakanishi, Japan)

enhance dental treatment and care for professionals and patients. Besides major updates of their core product lines, such as the Ti-Max Z contra-angle handpieces and S-Max pico turbines, new surgical systems and the iCare+ all-in-one cleaning system were on display.

Dental Tribune Asia Pacific had the opportunity to speak with Eiichi Nakanishi about the new products and the company's response to the current situation in Japan.

DTI:MrNakanishi, how have your business operations been doing in the aftermath of the natural disasters in Japan?

Eiichi Nakanishi: Fortunately, our staff were not injured and our facilities remained undamaged. As soon as we had confirmed that all our facilities were safe, we resumed operations on 14 March, almost immediately after the disaster. Owing to the occasional black-outs, we have had to stop production four times for a period of three hours since then. However, this has only marginally affected our production output.

A number of companies have announced or launched initiatives to help victims of the disaster. Are you working on something similar at the moment?

Our company has donated a total sum of €260,000 to the Japanese Red Cross Society with the assistance of Corporate Adviser and former CEO Mr Takasuke Nakanishi and Ms Shizu Nakanishi, the wife of our founder. In addition, we have collected donations from our staff that will support people affected by the catastrophe.

How has the disaster influenced business life in general?

We expect to see some effects in our business operations, particularly in the areas most affected by the earthquake and the tsunami. However, the best we can do right now is to help the population affected by the disaster and work together to recover from these events, which have had severe results.

In your opinion, will this catastrophe have any long-term impact on the dental industry

It is too early at the moment to make predictions about the longterm effects on our industry, as we are still in the process of recovery. We believe that the Japanese people will recover from this disaster quickly owing to the Japanese spirit, which embraces such characteristics as endurance, perseverance and dignity.

You have just returned from this year's IDS in Cologne. What are your general impressions regarding your exhibition there and the state of the whole in-

I believe that this year's IDS was very successful for us. We had many visitors to our booth and received great feedback on our new products. Unfortunately, we only met a few visitors from Japan, probably owing to the current situation in our country.

You exhibited seven new products, including new handpieces, scalers and hygiene solutions. In your opinion, what product or products will be of the most benefit to dental practitioners?

markets become to your com-

Historically, our business has grown steadily all over the globe. Our overseas operations already contribute 83% to our overall business and, therefore, the economic conditions in Japan only had little impact. Actually, our domestic business has grown lately in spite of the recession.

In Europe, we have increased our business thanks to re-organisation of sales and the establishment of our new headquarters in Frankfurt/Main, Germany. We recently expanded our sales network in emerging markets, with new offices in Dubai, Moscow and Singapore. We are also improving our operations in China through

"...the best we can do right now is to help the population affected by the disaster..."

All our new products are extremely useful but if I had to choose key products, the Z series contra-angle handpieces, as well as the Surgic Pro surgical micromotor with excellent durability, reliability and great torque accuracy, will be of most benefit to practitioners.

Are these products already available worldwide?

We will launch these products in Europe first and gradually expand to other regions. Customers will first be able to purchase them this summer.

You home market, Japan, was hit hard by the recession. How important have overseas our subsidiary in Shanghai and have started to re-organise our sales network in Latin America.

NSK has been on the market for more than 80 years. What business goals do you want to see accomplished by 2030, for the company's 100th anniversary?

In accordance with our corporate philosophy-by offering high performance and durable products at reasonable prices, NSK contributes to the health and well-being of people throughout the world—our ultimate goal is to be the No. 1 global dental company.

Thankyou very much for this interview.

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Bugs threaten health of orthodontic patients One in two retainers found to host array of harmful bacteria

Daniel Zimmermann

LONDON, UK/LEIPZIG, Germany: Orthodontic retainers are a po-

WHO takes on influenza threat

From news sources

GENEVA, Switzerland/LEIPZIG, **Germany:** Members of a working group set up by the World Health Organization have agreed upon an international framework to improve preparedness for influenza pandemics that threaten public health worldwide. The agreement, which is expected to provide clear legal regimes and responsibilities for all stakeholders involved in the prevention and management of pandemics, is the result of more than three years of negotiations. It is expected to be ratified during the World Health Assembly in Geneva, Switzerland, in May.



WHO headquarters (DTI/Photo courtesy of WHO, Switzerland)

According to a joint statement, one of the key elements of the agreement will be improved cooperation and exchange of information between key players such as the WHO, national laboratories and pharmaceutical manufacturers. Access to life-saving vaccines and other resources for low-income countries, which often cannot produce or afford the required anti-viral medication for their population, is also supposed to be improved.

"This agreement promotes global health security and solidarity in pandemic times," said Ambassador Bente Angell-Hansen, who also chairs the working group. "It also reflects a unique partnership with industry and contains concrete measures of cooperation with both industry and civil society."

Owing to increasing global transportation, locally active influenza viruses exhibit an increasing potential to become global pandemics, placing many at risk, especially medical and dental professionals. According to the latest estimates from the WHO, the H1N1 virus or swine flu that first occurred in Mexico has killed almost 20,000 people worldwide.

tential source of harmful microbes if not properly cleaned, scientists in the UK have warned. In a series of tests conducted at the UCL Eastman Dental Institute in London at least 50 per cent of all tested retainers contained species of Candida and Staphylococcus micro-organisms, including MRSA, a multidrug-resistant

bacterium that can be fatal to patients with a compromised immune system.

The Candida yeast, found universally on human skin and other areas, can also cause infections. Amongst other conditions, it has been associated with oral candidiasis, a condition often related to ill-fitting dentures.

Both species do not normally occur in the oral cavity.

The researchers said that the high number of harmful bacteria found in retainers is most likely the result of poor cleaning, allowing microbes to build up a resistant biofilm and spread to other areas of the oral cavity such as interior cheeks and tongue. The potential for transmission is also high, as retainers are frequently removed and replaced in the mouth by the person who uses it, they added.

They recommend wearers wash their hands thoroughly before and after inserting their retainers.

Proper dental hygiene through tooth brushing and the use of mouthwash also helps to keep harmful bacteria from entering the mouth.



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Periodontal treatment no harm to newborns

From news reports

SAINT PAUL, USA/LEIPZIG, Germany: Pregnant women with gum disease may undergo non-surgical periodontal treatment without fear of consequences for their baby's health. In a large trial involving 400 infants between the ages of two and three from different paediatric clinics in the US, dental clinicians found that treating periodontitis during

pregnancy did not affect the children's cognitive, motor or language capabilities later in life.

In the study, clinicians from universities in Minnesota, Kentucky, Mississippi and New York compared development data of children born to women who were treated for gum disease before and after their delivery. However, the results between the control and experimental groups

only differed slightly. Higher motor and cognitive scores were observed in the children of women who saw an improvement in their periodontal health.

Earlier studies indicated that paternal periodontal treatment may be linked to different medical problems including low birth weight, preterm birth and longterm development delays, as bacteria released during treatment may enter the mother's bloodstream and harm the baby. According to research, pregnant women are prone to gingival bleeding, which is caused by a hormonal imbalance that encourages the growth of certain oral bacteria.

If the new data is verified, pregnant women throughout the US could have their gum conditions treated, confident in the

knowledge that it will not have a clinically significant effect on their child's development, the researchers said. A spokesperson of the American Academy of Periodontology said that although the data remains inconclusive, the organisation generally recommends women to maintain their periodontal health during pregnancy.

Renewal of Brunei agreement

Lisa Townshend DT UK

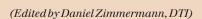
LONDON, UK: King's College London Dental Institute can look forward to three more years of collaboration aimed at the development of the dental workforce in Brunei Darussalam after the renewal of the agreement with the Government of Brunei.

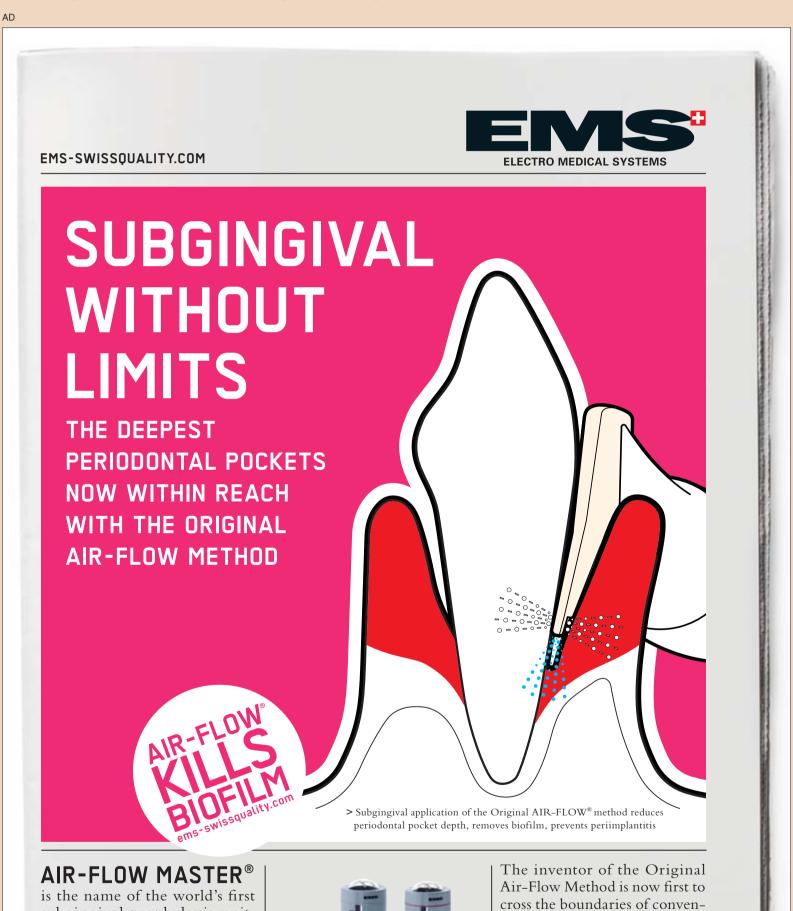
Professor Stephen Dunne, Head of Dental Practice & Policy at the Dental Institute, and Mrs Mabel Slater, Head of Dental Care Professionals Centre for Education and Learning, will take this collaboration forward. In welcoming the news of the signing of the renewal of the agreement, Professor Dunne said: "I am delighted that we are continuing this highly successful collaboration. It is a great pleasure to work with Ministers and colleagues in Brunei Darussalam. Much has been achieved during the past three years, in particular, the establishment of a Brunei Diploma in Dental Hygiene and Therapy Programme."

"In addition, foundations have been laid for other areas of workforce development, including Dental Technology and a Dental Hygiene Therapy Conversion Programme," he added. "Discussions are also underway to establish a National Survey of Oral Health Brunei Darussalam to fully inform dental workforce requirements for the future. Thus, I am confident that the next three years of our collaboration will be just as successful as the last."

In the meantime, discussions led by the Dean continue with the University of Brunei Darussalam in respect of the possibility of collaboration in respect of BDS (Bachelor of Dental Surgery) training.

According to the Brunei Ministry of Health, the country's dental service is facing a serious shortage of staff as only 28 dental officers serve the total population of 381,000 people under the Primary Oral Health Care Scheme. There is also a low number of local graduates as well as foreign dentists with suitable qualifications for the post of Dental Officer.





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China imports caries detection from Europe

Daniel Zimmermann

LONDON, UK/LEIPZIG, Germany: Beijing Focus, one of China's largest dental dealers, has signed an exclusive distribution agreement with 3-D Diagnostic Imaging, the UK developer of the Carie-Scan PRO device, through its subsidiary Wisdom International Medical and Science and Technology. The agreement will take effect immediately and be 3-D's first step into the Asian market.

The company, which is based in Dundee in the UK, is already distributing the device in North America and all German-speaking markets through distribution agreements. Beijing Focus currently represents a number of Western dental companies,

including Straumann, Bien-Air (both Switzerland) and SciCan (Canada).

Manufactured in Scotland, CarieScan PRO is an award-winning diagnostic device that utilises alternating current impedance spectroscopy technology for the early detection of dental caries. It is claimed to be more than 92% accurate in detecting sound and carious teeth.

Regulatory approval for Carie-Scan PRO by Chinese officials is anticipated in the last quarter of 2011, a company spokesperson told *Dental Tribune Asia Pacific*. She said that the device will be displayed earliest at the DenTech exhibition in Shanghai in late October.

3-D's stocks climbed by 0.25 points on the London Stock Exchange after the agreement had been announced.



Picture showing the CarieScan PRO in clinical use. Due to a new distribution agreement, the device will be soon available to dentists in China. (DTI/Photo courtesy by Buchanan Communications, UK)

AD

IDEM executive resigns

Yvonne Bachmann

LEIPZIG, Germany: Oliver P. Kuhrt, Executive Vice-President of Koelnmesse GmbH in Germany and responsible for marketing, has announced that he will be resigning in order to pursue a new professional challenge. Mr Kuhrt, who has overseen the marketing of five editions of the International Dental Exhibition & Meeting in Singapore and many other exhibitions, formally informed the Chairperson of the group's Supervisory Board, Jürgen Roters, of his desire to resign at the Supervisory Board meeting in April.

The responsibilities of Kuhrt's management division will provisionally be taken over by Gerald Böse, CEO of Koelnmesse. "Gerald Böse has a lot of experience in the organisation and marketing of trade shows," Guido Gudat, Koelnmesse spokesperson, told *Dental Tribune Asia Pacific*. According to Mr Gudat, the company is looking for a new executive vicepresident, who, amongst other duties, will take over the marketing for the next IDEM in 2012.

Mr Kuhrt, who has worked for Koelnmesse since 2000, has not yet disclosed the details of his future plans. During his time at the company, he established Koelnmesse's subsidiary Koelnmesse Service GmbH and was was appointed Executive Vice-President of the parent company Koelnmesse GmbH. Hemanaged more than 20 international trade fairs, including the world's largest dental show IDS. "I am looking back at ten years of very interesting and multifaceted work at Koelnmesse, for which I am profoundly grateful. I wish the group, its management and all of its employees continued professional success and all the best for the future," Mr Kuhrt stated.

Gerald Böse added: "In recent years, Mr Kuhrt has generated strong momentum for our trade fair portfolio and continuously refined the leading global trade fairs for which he was responsible. I would like to thank him for his extraordinary dedication and wish him every success for his new challenges."



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A Vedic Smile approach to dentistry

Dentist Dr Sushil Koirala talks about the Minimally Invasive Cosmetic Dentistry concept and why it matters to dental professionals

DT Latin America

MIAMI, USA: An extremely skilled clinician with over 17 years of experience in Cosmetic Dentistry, Dr Sushil Koirala says that technology should work to improve health, never to compromise it. His Minimally Invasive Cosmetic Dentistry (MiCD) treatment protocol is based on consciousness, nature and evidencebased technology that really respects the patient's long-term health and needs.

Koirala, who is the founder and president of the Nepalese Academy of Cosmetic Dentistry and of the South Asian Academy of Aesthetic Dentistry, combines in his MiCD protocol philosophy and ethics, scientific research, and what can be described as a Vedic Smile or holistic approach to dentistry.

Worried about the rapid advance in aesthetic procedures, Koirala began to question if the aim of many dental techniques was to improve health or just to offer the patient a quick makeover, regardless of their long-term consequences. Years of practice led him to develop his guidelines for MiCD, a set of principles that

stress early diagnosis, disease intervention, selection of minimally invasive treatment procedures, and use of evidence-based materials, taking into account as well the psychological aspects, ethnic background, and actual health needs of the patient.

A Pioneer Paper

In a ground-breaking article entitled "Minimally Invasive Cosmetic Dentistry: Concept and Treatment Protocol," Dr Koirala offered a much needed guide to minimally invasive cosmetic dentistry, a discipline that up to now has been more concerned with appearances than with clinical evidence. The article, published in cosmetic dentistry magazine, was translated in many languages and attracted many followers eager to at last have a clinical protocol for many dental cosmetic procedures that stressed something that while obvious was not widely followed -preserving as much natural tissue as possible.

The ability to differentiate between what a patient wants and what he or she actually needs is a large ethical question in cosmetic dentistry. In order to address this issue Dr Koirala has developed what he calls a simple self-consciousness pre-treatment test,



Dr Sushil Koirala talking to Dental Tribune. (DTI/Photos Javier M. de Pison, DT Latin America)

"whereby I ask myself four simple yet honest questions":

- How would I treat my own family members?
- Will the treatment plan remain the same regardless of who the patient is?
- Am I competent and happy enough to take up the case?
- Is the patient happy with the Biological, Financial and Time (BFT) cost estimation of the treatment?

Dr Koirala explains that "what a patient wants and what a patient needs are two different things. The needs are the basic treatments a dentist can provide. But the wants are of a different variety, like choosing clothes in a store: you choose the color of the teeth, the texture of the teeth, the shape of the smile."

What is Beauty?

Since the definition of beauty is different in each culture, it also affects cosmetic procedures.

"For Western-style contemporary smile aesthetics, beauty is white long teeth and a straight smile, but the same parameters don't apply in Asia," he explains. "In fact, Asian patients don't mind having a little bit of overlapping teeth, which they see as natural. So we cannot use the same formula globally in cosmetic dentistry."

Studies have shown that the dental pulp of Asian patient is generally wider, in comparison with European or American patients, and Dr Koirala points out that "preparations with wide shoulders could be a hazard to the pulps in Asian patients." Even so, many dental technicians follow Western standards for non-Western patients with different facial

Dr Koirala warns that "you need clear consciousness while choosing the right technology for your practice, as technology may not always be health-oriented." As a sample, he thinks that CAD/CAM restoration technology still has to be refined in order to be adopted fully in restorative dentistry. "CAD/CAM presently demands extension for Insertion, Strength and Aesthetics," thus, "we are compromising health for technology."

"Clinicians still believe that arideal force component in occlusal 'big mark big force, small mark per marks to do occlusal force adjustment. Computerized Occlusal Analysis System, which can obof each tooth with the time sequences of occlusal contact, was developed almost 15 years ago. It is component in smile design. This is why I advocate consciousness in dentistry, because technological information is not enough; you need consciousness to rightly use it for mankind."

work, he says. Dr Koirala strives

to preserve the definition of beauty set forth in the cultural tradition of the patient rather than following the status quo of a broad, one-size-fits-all plan.

Regarding teeth whitening for instance, Dr Koirala says that while some people may need it, "more often than not the coloring of the teeth is a perfect balance designed by nature. The eyes, teeth and skin tone should be in harmony. If the teeth are too white, it may look awkward and unnat-

Changing the Mindset

While the principles of MiCD may seem complicated, the protocol is easy to follow and very practical. The reason is that it doesn't require changing clinical techniques, but using them in a consciousness way beneficial for both the patient and the den-

"We don't say, 'Don't cut the tooth this way', we say, 'Cut less," explains Dr Koirala. In fact, the MiCD protocol does not reject any contemporary procedure, including full crowns or bridges, it just asks the dentist to use their consciousness properly to think if invasive options can be avoided, and to use them only as a last resort. In other words, the only thing a dentist has to do to comply with MiCD is to change the priorities for a given procedure, to alter his or her mindset.

The framework of MiCD establishes five golden principles:

- 1. "Sooner the Better"—early exploration of diseases and defects to minimize possible invasive treatment in future.
- 2. "Smile Design Wheel"—follow these principles, and respect the psychology, health, function and aesthetics of the patient.
- 3."Do no Harm"-select treatment procedures that maximize preservation of healthy tissue.
- 4. "Evidence-Based Approach" -selection of materials and equipment must be based on science.
- 5. "Keep in Touch"—focus more on regular maintenance, timely repair and strict evaluation, which should be understood by the patient.

As Dr Koirala says, they are simple guidelines to accommodate every treatment in a dynamic protocol because science constantly changes.

"A good protocol should incorporate changes based on scientific evidence," he continues. "The $philosophical \, part\, may\, be\, the\, most$ difficult because it's subjective, which is why we give a questionnaire to the patient whereby he decides what he wants. We give him the science and inform him about

Preserving Health, Enhancing Smiles

Patients today are much more educated and demanding regarding dental treatements. Amalgam is a perfect example. A high-percentage of patients demand not to have amalgam fillings for cavities, but a tooth-color material. In the past, a restoration with amalgam required cutting a lot of tissue, but the new direct tooth-colored restorative materials cause less damage to the tooth and provide better aesthetics.

"Many patients are now going for direct aesthetics restorations, non-prep veneers, minimal tooth preparation indirect restorations, and mini-implants, which are less invasive," says says Patrick Loke, SHOFU's General Marketing Manager for Asia Pacific. "The trend is growing."

Minimally Invasive Cosmetic Dentistry

Logo of the MiCD Global Network, a group of professionals who wish to improve the knowledge of the clinician and the patient on minimally invasive

The goal now is achieving good aesthetics with minimally invasive treatment with the support of MiCD instruments and bio-aesthetics material," Loke continues.



Cover of Koirala's book in

"We are the official partner of the MiCD movement, which motto is 'Preserving Health Enhancing Smiles.' We are fully committed to support their educational events for both public and dental professionals, such as workshops, lectures and symposia," he adds.

SHOFU's advanced restorative materials use S-PRG Technology (Surface Pre-Reacted Glass Ionomer), which provides predictable aesthetics and better function. These are bio-aesthetics materials that allow fluoride release and recharge. You can restore a small cavity removing only the affected area because the S-PRG fillers help re-mineralize the tooth structure.

S-PGR Technology is effective and is based on eight years of clinical trials. The new ongoing studies use MiCD protocols and newly developed materials, They were introduced in 2010 at the main dental research venue, the congress of the International Association for Dental Research (IADR) in Barcelona, Spain.

ticulating paper mark gives them adjustment," he continues. "The small force' concept has no scientific evidence, but most cosmetic dentists relay on articulating pajectively measure occlusal forces hard to understand why clinicians neglect scientific facts about articulating paper marks and still believe in it for balancing the force

This is the background against which Dr Koirala revolted and led him to develop the MiCD treatment protocol, which he summarizes "as bringing consciousness, nature and technologytogether". Rather than inflicting one's own definition of beauty on the patient, the dentist must listen to and understand the personal and cultural desires of the individual undergoing the dental