As the R&D department of Glidewell Laboratories refines its processes, as well as improving the material’s translucency, aesthetics continue to improve. Advancements to improve the aesthetic properties of BruxZir Solid Zirconia restorations were recently achieved as demonstrated in this case by Dr Michael C. DiTolla, Newport Beach, USA.

While Glidewell does not suggest that dentists suddenly switch all of their anterior restorations to BruxZir crowns, they may want to consider using it for patients with parafunctional habits or old PFMs, where an aesthetic improvement is essentially guaranteed, the company said.

During the first appointment, the PFM crowns on tooth #8 and #9 were removed with BruxZir Solid Zirconia crowns (Glidewell Laboratories). Then the shade was taken with help of the VITA Easyshade Compact which displayed the shade in both VITA Classical and VITA 3D-Master shades. Next, the selected ZM1 3D-Master shade tab was held to the teeth, along with the 1M1 3D-Master shade tab for contrast.

The shade tabs in the mouth were photographed. PFG gel was placed into the sulcus of tooth #8 and #9 with an Ultracet syringe. Next, they were anaesthetised with an STA Single Tooth Anesthesia System device. The Razor Carbide bur easily cuts through porcelain and metal substrata, and when used in combination with an KaVo ELECTROtorque handpiece, it easily cuts through the existing PFM. The crown was torqued with a Christensen Crown Remover.

After using a periodontal probe to ensure there is enough biologic width to safely remove some tissue (Fig. 2), a NV MicroLaser was used to remove 1.5 mm of tissue. With the margin exposed, a 856-025 bur and KaVo ELECTROtorque handpiece was used to drop the margins to the new gingival level.

The dental assistant relined BioTemps Provisionals (Glidewell Laboratories) on tooth #8 and #9 with Luxatemp provisional material. Using a thin, perforated diamond disc, the gingival embrasures were opened to avoid blunting the interproximal papilla, as well as to make sure the gingival margin was not overextended and the emergence profile was flat. TempBond Clear was used to cement the BioTemps, and loupes were used to inspect around the temps and gingival embrasures for excess cement.

After two weeks, the temps were removed and the preps cleaned with a KaVo SONICflex scaler. After trimming the gingival margin with the diode laser, an Ultrapak cord #00 (Ultradent) was placed, cutting the cord intraorally on the lingual to avoid any overlap. A second cord (Ultrapak cord #2E) was placed before refining the preparation.

As the top #2E cord on tooth #8 was packed, the top cord on tooth #9 exposed the margin (Fig. 3). Now finishing the preps began using a fine grit 854-025 bur.

Two moistened ROEKO CompreCap Anatomic compression caps were placed on the preps. The patient bit with medium pressure for 8 to 10 minutes. The Comprcaps were removed and the top cords pulled. For the impression, medium body impression material was applied around the preparations with a syringe and a bite registration was taken. Then the temps were replaced.

During the third and final appointment—another two weeks later—the temps were off. The BruxZir crowns were approved and a layer of desensitizer was placed on the teeth. A warm Air Tooth Dryer was used after applying both coats of the G5, while the assistant placed the #2E Cord inside the crowns. The crowns were then loaded with a resin-modified glass ionomer cement (Kerr X Luting Plus Automix) and seated using a pine wood stick to ensure that they were fully seated and had the same length. In the “after” picture (Fig. 4b), there is not any porcelain on the BruxZir crowns.
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Launch of JUVORA Dental Disc

Polymer device a viable alternative to combat the shortfalls of traditional denture materials

JUVORA, UK
www.juvoradental.com

Specialists in dental anaesthesia

Inibsa Dental presented product portfolio at IDS 2013

Smart Scaling system revealed

Deppeler tries to break new ground in periodontology with launch at International Dental Show in Cologne

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IDEM Singapore is a highly targeted trade exhibition and conference that offers exhibitors unrivalled prospects to meet and do business with the dental fraternity in the Asia Pacific region.

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With a high volume of booth traffic at IDS, the JUVORA Dental Disc is a high performance polymer device that allows the CAD/CAM of removable denture frameworks and implant supported superstructures proved to be an exciting concept for dental labs and dentists, according to the dental innovations company.

Through the use of PEEK-OPTIMA polymer, the UK provider says that it is committed to product quality throughout the whole supply chain. Although new to the dental industry, PEEK-OPTIMA from Invibio Biomaterial Solutions, the sole provider of PEEK-OPTIMA biomaterials worldwide, has more than a decade of proven success in over four million implanted devices including spine, orthopaedic and CMF, all of which demand high mechanical strength, low weight, and manufacturing flex-ibility features.

In order to ensure product quality continues through to the dentist only certified dental lab partners can purchase this device. This process was launched in September 2013 and assesses that a dental lab has met the necessary criteria to efficiently CAD/CAM removable denture frameworks and implant supported superstructures from a JUVORA Dental Disc.

“By working closely with certified partners it ensures that an innovative and high quality offering is provided to both dentists and patients,” said Reinhard Lobenhofer, a JUVORA Technical Support Specialist.

According to JUVORA, the adoption of the JUVORA Dental Disc continues to rapidly expand and as of March 2013 the certified partner coverage spanned eight countries across Europe. With the growing interest in this device, the JUVORA Dental Disc is proving to be a viable alternative to combat the shortfalls of traditional denture materials, the company said.

In daily practice, dentists face a wide range of patholo-gies. They also have to deal with different types of pa-tients. Therefore, it is important to choose the appro-priate anaesthetic for each treatment and patient by considering factors such as the need for postoperative pain control, the required haemostasis, the risk of postoperative self-inflicted injuries, and any existing contraindications to the selected local anaesthetic. The company says to provide a complete range of drugs to deliver safe, convenient, and effective anaesthesia for every type of dental procedure and patient.

Inibsa’s local anaesthetics are aesthetically manufactured and use silicone-coated, latex-free rubber components for a smooth and painless injection.

With over 65 years of experience and an annual production capacity of over 150 million cartridges, Inibsa Dental has gained a leading position amongst the world’s leading manufacturer of dental anaesthesia.

Unveiled for the first time at IDS in Cologne, Smart Scaling from Deppe-ler has recently been launched to dental markets. Designed for maximum efficiency, this pioneering periodontal instrument kit has angioplastic and ergonomic features that will allow to do the same work as up to nine conventional instruments.

In addition, it is allowing much better access to periodontal pockets, the company said.

The innovative system also provides practitioners with more comfort in their daily workflow. Like all Deppe-ler products, the Deppe-ler Smart Scaling has been designed to make periodontal treatments easier and more effective. Developed with the needs of dental professionals in mind, it is the result of careful and consid-ered research into the shape, features and materials. They also have to deal with different types of patients.

The depth of the pocket is also critical in periodontal procedures, and Deppe-ler Smart Scaling is the first instrument system to allow practitioners to observe the depth of periodontal pockets throughout the de-scaling process. According to the company, it was designed to simplify professional practices, opening up new possibilities in periodontal treatments and stream-lining procedures by minimising the number of instruments required.

First established in 1934, Deppe-ler has been using its technical expertise and strive for excellence to service the needs of the dental sector. Recognised for its high standards and its total control of the manufacturing process, the company provides instru-ments of exceptional quality ensuring the highest levels of strength, effec-tiveness and working comfort. Deppe-ler also collaborates closely with dental professionals in order to design new solutions and offer a range of instruments perfectly adapted to their needs.

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DURAVIT 3P by B. & B. Dental
Italian market leader steps ahead with new generation of implants

With DURAVIT 3P implants, the Italian market leader B. & B. Dental is offering a new generation of implants that is supposed to differentiate itself from other products on the market with unique and advanced characteristics.

The contact area between the fixture and the abutment, for example, is increased by the CONEXA connection which offers internal tapering (cone shape) and a bevelled connection. According to the company, CONEXA provides prolonged durability over time as well as superior stability. Thanks to the internal hexagon and the “morse taper” the unscrewing of dental abutments are reduced while micro movements can be avoided to allow an optimal distribution of the masticatory load.

The colonization of bacteria is also decreased, the company said. Owing to the platform switching that provides different diameters of the platform and the abutment, vertical bone loss can also be minimised.

Collar microgrowing helps to improve primary stability and to facilitate the placement of implants. In addition, it promotes the healing of soft tissue and reduces the risk of bone resorption at collar level.

The unique triple thread body with its 60° bevelled profile allows an easier and less invasive insertion of the implant body for faster osseointegration. The perfect anatomical design, with a radicular structure, implies a variable degree of tapering, more pronounced near apical region.

According to the company, it provides high stability even if the bone is undermined and ensures the full integrity of all proximal structures. The self-tapering system consists of a triple-apical groove that was designed with a special skewed section to promote bone taping during the insertion and prevent any trauma that can result from pressure at the same time. A “bonefriendly” apex, which helps to evaluate the floor at the maxillary sinus, avoids the risk of perforation.

B. & B. Dental S.r.l. says to be one of the few Italian companies to use high technological decontamination procedures, such as the bombardment of accelerated ions with Argon Plasma, for carefully cleaning the surfaces of its equipment and removing contaminants efficiently from the implants.

With Speed Bone, the company has also developed an exclusive treatment that consists of sandblasting surfaces with alumina oxide through a dedicated appliance as well as treatment with double etching exploiting mineral acids. The aim is to achieve a correct and controlled micro-roughness of the implants which facilitates the osseointegration and the initial anchor of osteoblasts.

According to the company, all processes assure homogeneity along the whole implant surface.

B. & B. Dental S.r.l. says it’s main goal to offer original dental solutions. Thanks to its strong commitment to innovation and long-term experience in developing high quality prosthetic implant technologies and materials for bone regeneration, they have gained a leading market position worldwide.

B. & B. DENTAL, ITALY
www.bebdental.it

3Shape launches TRIOS Color
New scanning technology for realistic display of teeth & gingiva

At IDS, Danish digital specialist 3Shape unveiled its new TRIOS Color digital impression solution with RealColor Technology. With the new tool, the Danish manufacturer now offers both TRIOS Color and TRIOS Standard digital impression-taking solutions.

According to 3Shape, the new RealColor Technology in the TRIOS Color digital impression-taking solution facilitates the creation of scan images in the appearance of real teeth and gingiva. Moreover, the realistic display of colours is supposed to make it easy for dentists to distinguish between the different types of restorative materials (metal, enamel, composite, etc.), recognise bleeding areas and easily identify margin lines with enhanced accuracy, the company said.

In combination with 3Shape’s established TRIOS Ultrafast Optical Scanning Technology, TRIOS Color represents a high-performance color scanning solution that is very fast, very accurate and very easy-to-use, the company said.

In addition, a new configuration solution and an alternative to the TRIOS Scan was introduced—the new TRIOS Pod, which enables scanning with the TRIOS handheld scanner and software using selected laptop PCs. The solution offers mobility and flexibility for dentists working in multiple locations or for clinics with limited space, according to 3Shape. Users will be able to control scanning from an iPad or mirror the 3-D view on other displays in the clinic, such as monitors integrated in the chair. TRIOS Pod works with both TRIOS Color and TRIOS Standard solutions.

Additional developments that apply to both TRIOS Color and TRIOS Standard digital impression solutions were on display at the company’s booth in hall 4.2. 3SHAPE, DENMARK
www.3shape.com
mectron shows multipiezo touch

Ultrasound device to set new standards in prophylaxis

By balancing external factors and adjusting its power level automatically, the intelligent multipiezo piezoelectric ultrasound technology makes treatment more comfortable for both the dentist as well as the patient. It also boasts a special soft mode for extra gentle treatment power. The integration of a 360° adjustable LED-light makes working with the multipiezo touch even easier, according to the company, as the source of light can be directed right to the spot of activity, which is a unique feature in the field of ultrasonic devices.

The irrigation liquid container carrying 500 ml is illuminated by the holder and can be exchanged quickly and easily for maximum flexibility.

A dedicated tap water connection is also optionally available when water is required as a coolant.

With 16 different inserts for supra- and subgingival scaling mectron says to currently offer one of the most extensive ranges of ultrasonic prophylaxis inserts in dentistry.

VDW presents the new GUTTAFUSION

Obtrutors entirely made of gutta-percha introduced

VDW’s latest product GUTTAFUSION draws from the advantages associated with the use of gutta-percha. The carrier for the thermoplastic obturation of root canals are now made entirely of this material. The obturators have a stable core made of cross-linked gutta-percha, which remains stable even when heated, and are coated with gutta-percha that flows evenly when heated to effectively achieve a dense, 3-dimensional filling. The obturator handle, specially designed to be used with tweezers as well as fingers, is supposed to enable the easy application of obturators in molars. In addition, no other instrument is required to separate it. The obturators also have a high radiopacity, the company from Munich said.

Good obturation results can be achieved thanks to the homogeneous gutta-percha filling of the whole root canal system, including ramifications, isthmus and the apex. The gutta-percha core simplifies the post space preparation procedures and the filling can be easily removed for retreatment.

According to VDW, GUTTAFUSION is compatible with most rotary NiTi systems. The available obturator sizes can be determined with a size verifier made of nickel-titanium. Obturators and reusable size verifiers are available in the sizes 20 to 55.

GUTTAFUSION for RECIPROC obturators are particularly convenient to use. The three obturator sizes correspond with the instruments R35, R40 and R50. A size verifier is not required. The GUTTAFUSION oven can be used quickly heating the obturator.

Three types of 3-D data with one Planmeca X-ray unit

Planmeca ProMax 3D combines CBCT, 3-D face photos and model scans

“Planmeca’s 3-D X-ray unit range now offers to combine CBCT images, 3-D face photos as well as 3-D model scans in only one software. According to Finish company, it is the first in the industry to introduce this concept for creating a virtual patient for different clinical needs. With the launch of the new imaging mode for scanning impressions and plaster casts to its Planmeca ProMax 3D X-ray units, impressions can be automatically inverted to digital casts and instantly stored in the Planmeca Romexis software in standard STL format.

‘To Planmeca Romexis, the patient’s digital cast and CBCT image can be superimposed for further visualisation and planning’, says Ms Helianna Puhlin-Nurminen, Vice President of Digital Imaging and Applications division at Planmeca Oy. ‘The combined data set provides an artifact-free model about the patient’s dentin including bone, crowns and soft tissue, which can be utilised in implant planning and surgical guide manufacturing. For orthodontic purposes, the STL data can be further analysed in Planmeca Romexis 3D Ortho Studio module, where dental cast analysis and orthodontic treatment plan can be done in 3D, according to Puhlin-Nurminen. The Romexis data base stores all digital casts together with other patient images. The 3D model scans can also be utilised in orthodontic surgery planning and for follow-up of the patient’s treatment progress.

The Planmeca ProMax 3D family is an all-in-one unit range designed to obtain complete information on patient anatomy in the minutest detail. The units provide digital panoramic, extraoral bitewing, cephalometric, and 3D CBCT imaging, 3-D face photos and now also 3-D model scans. The wide selection of volume sizes allows optimising the imaging area according to a specific diagnostic task—always complying with the best practices of dentistry and the ALARA (as low as reasonably achievable) principle to minimise radiation. All patient images are conveniently processed in a single software, Planmeca Romexis.”

PLANMECA, FINLAND
www.planmeca.com

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