There was no pulp exposure fractured at the middle third. I saw tooth #9 was horizontally reviewed of the digital radiograph, Upon clinical examination and graphs were obtained (Fig. 1). of tooth #9 and extraoral photo-possible. Immediately after her daughter to the office as soon as We advised her to bring her P.E. class and broke a front tooth. That her daughter fell while in year-old patients, who stated the mother of one of our twelve- Dr. Edward Mills in his presentation on Site Development and Implant Protocol Based on Etiology of Tooth Loss refers to a sim-ilar traumatic injury in which CT images revealed not only a root fracture within the bone but a fracture of the lingual plate. A limited field 3D scan 5cm x 5cm at 500 voxels was taken with the CS 8100 3D to rule out buccal or palatal plate fractures (Fig. 2). None were evident on the scan. While her parents were upset that she had been injured, the ability to view a 3D image reassured them that the damage appeared to be limited to the tooth’s coronal structure. Treatment Plan The patient’s treatment options were: 1) do nothing; 2) restore with a composite restoration, realizing that this would have a questionable long-term prognosis due to size of fracture; 3) restore with a CAD/CAM milled crown. The patient and her parents were advised that cases where teeth have been injured traumatically such as in this case, one might experience a post traumatic irreversible pulpitis at a period of time beyond the initial trauma. In some cases, this condition may be treated by endodontic treatment and crown restorations but in other cases root resorption may take place precipitating the loss of the teeth. These teeth will be monitored every 6 months over several years with periapical radiographs. Every appropriate effort to maintain the tooth in place and avoid the need of an implant until the patient reaches maturity. Dental implants in adolescent patients may affect vertical growth and development of the alveolar ridge because the osseointegrated implant acts as an ankylosed tooth. At a focus conference on Advanced Dental Implant Studies, Dr. Mills summarized that jaw growth in a young adolescent patient may compromise the outcome of the oral rehabilitation using an implant supported prosthesis even if implants successfully integrated. After presentation of the treatment plan and discussion of risks, benefits, options, and alternatives; the parents and patient elected to restore tooth #9 with a CAD/CAM crown. The parents understand this crown will likely need to be replaced once she reaches adulthood for the best cosmetic appearance, as her teeth and face will change with further growth and development. Tooth #9 was anesthetized and prepared for a ceramic crown. I utilized the CS 5000 intraoral scanner to scan the prepared maxillary anterior quadrant and the opposing mandibular anterior quadrant as well as obtain a bite registration (Figs. 5, 6). CS Restore software was then utilized to design the anterior crown (Figs. 5-7). The CS 5000 milled the crown from an Ivo-
Porcelain laminate veneers – avoiding complications

By DCDM

Dental Veneering is the process of covering the facial surfaces of teeth by using various types of dental materials. Most commonly used are porcelain veneers which are thin shells of porcelain that are shaped like the outer layer of the teeth and are used to cover the teeth, aiming to enhance their appearance.

Many celebrities opt for this esthetic treatment to achieve what may seem like a picture-perfect smile. This may lead people to a false expectation that everyone is a good candidate for veneers. However, from a dental clinician’s perspective preparing and planning for veneers is very challenging, and if proper analysis of the patient and proper techniques in preparing the teeth are not used, multiple complications can occur. These include gingival inflammation, chipping and breaking or even complete de-bonding of the veneers.

To decide whether a patient is a good candidate for veneers many factors should first be assessed; the condition of the patient’s teeth, habits, periodontal condition and most importantly the patient’s expectations and willingness to maintain their veneers after they are placed.

We should start by analysis of the teeth. This involves assessing their shape and proportion; diastemas, and analysis of the occlusion. Regarding shape and dimension, there should be sufficient tooth structure to retain the veneer, otherwise the longevity can be severely affected. In teeth with small surface areas such as lower incisors, or teeth with multiple cavities and fillings which decrease the available surface for bonding, there is an increased chance of the early displacement of the veneer. In such cases full crowns may offer a better long term option (H.Serdar Cotert et al, 2009).

In terms of diastemas, if these are too large veneers can only partly reduce the space, otherwise gingival inflammation and/or recession can occur due to the bulkiness of the veneer (Weissgold and Cohen, 1981). Additionally, a tooth which is unnaturally closed to ones than veneers. When assessing a diastema the clinician must establish if it is stable or increasing since the latter may indicate periodontal bone loss or a harmful habit.

Finally in tooth analysis the occlusion must be considered. For veneers to have a longer survival rate they should not have excessive biting forces on their edges as is common in patients with an edge-to-edge occlusion which can lead to chipping and breaking of the veneers. Care must also be taken in patients with missing posterior teeth, as this increases the loading on the anterior teeth. Patients’ habits such as gr grinding or clenching, habits such as biting or chewing on fingernails or objects like pens, even biting or chewing on fingernails or objects like pens, create high horizontal forces impacting on survival of the veneers at a rate 8 times higher than patients who don’t have such habits. Such forces can readily lead to fracture, chipping or total de-bonding of the veneer. We should also consider the patient’s high consumption of dark or acidic foods as well as smoking habits which can lead to dark stains around the margins of the veneers (Fig 1). Since patients with dark stained teeth will often consider veneers as a solution, habits should be identified changed after veneer placement. Eventually gingival health of the patient’s oral hygiene must also be assessed, which leads us to the last key point of gingival health. Veneers should not be prepared on bleeding gingiva. Gingival health should not be achieved before veneers are started. All of these factors need to be considered during the initial assessment to avoid complications.

Additional complications can arise during the preparation of teeth. There are two common approaches to placing porcelain veneers, one is done without altering the natural teeth - bonding the porcelain veneers to unprepared teeth. This might seem a conservative choice avoiding alteration to tooth surfaces, but it inevitably creates a bulky over-contoured appearance and increases the risk of the veneer de-bonding and gingival complications. Alternatively teeth are prepared for veneers by changing external contour, removing less than a millimetre of the facial surfaces and around 2 mm of the incisal edges, thus porcelain replaces the tooth structure removed, ensuring the porcelain is seated properly onto the tooth with enough bulk of porcelain at the edge to minimise chances of chipping and breaking. Studies have shown that the overall success and survival of the first method is much lower than the second method. The commonest complications with veneers are breaking and chipping (H.Serdar Cotert et al, 2009) (Letston and DP Hall, 2013) (Akgolu et al, 2011).

A study analyzing the overall survival rate of porcelain veneers over a 20 year period concluded that the estimated survival rate over a 5 year period is at 95%, at 8 years is 94%; at 10 years is 86% and at 20 years is 85% (Beier et al, 2012). It should be noted that these were veneers placed after adequate tooth preparation.

The clinician must consider all these factors before choosing to place veneers if complications are to be minimised and patient satisfaction achieved.

References are available from the authors.

About the Author

Dr. Nadia Tufenkerji is a second year resident at Dubai College of Dental Medicine (DCDM), Prosthodontic MSc. Program. Located in Dubai Healthcare City (DHCC).

Dr. Fatemeh Amir Rad is a lecturer of Prosthodontics at Dubai College of Dental Medicine (DCDM).

Prof. Crawford Bain is the Director of the Periodontics MSc. program at Dubai College of Dental Medicine (DCDM).

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Dubai Dental Clinic
Case report surgical correction of a class III malocclusion in an adult

By Dr. Fabien Depardieu

This case report describes a successful orthodontic treatment of a skeletal Class III malocclusion with mandibular prognathism in an adult individual. The patient with Class III malocclusion, having mandibular excess in sagittal and vertical plane was treated with orthodontics, bilateral sagittal split ostectomy. The surgical-orthodontic combination therapy has resulted in near-normal skeletal, dental and soft tissue relationship, with marked improvement in the facial esthetics in turn, has helped the patient to improve the self-confidence level. The interdisciplinary approach is the treatment of choice in most of the skeletal malocclusions (1).

Keywords: Class III malocclusion, decomposition, Orthognathic Surgery, Bilateral sagittal split osteotomy, prognathism, surgical orthodontic treatment.

Introduction

The Skeletal Class III malocclusion is characterized by mandibular prognathism, maxillary diprosopism, maxillary decompensation, skeletal malocclusions (1). The surgical-orthodontic combination approach is the treatment of choice in most of the skeletal malocclusions (1).

The patient was a 28 year-old man who had a Class III facial type and slight crowding with a complete Class III relationship. His chief complaint was an unesthetic facial and uneven bite. His medical history showed no other abnormal signs.

Figure 1. Pre-treatment extra-oral photographs showed symmetry of the face.

The pretreatment extra-oral photographs showed symmetric facial structures (Fig 1). The patient had a concave profile, a decreased nasolabial angle and a protusive lower lip. The intra-oral photographs (Fig 2) showed a Class III occlusion on each side with an anterior crossbite and without apparent crowding. Overjet was -2.0 mm, and overbite was -3.5 mm. His maxillary anterior teeth were protusive relative to the cranial base (SNB angle, 82; ANB angle -2). The panoramic radiograph showed no other abnormal signs.

After the analysis of the photographs, the casts and radiographs, it was decided to approach his problems as a skeletal Class III malocclusion with an anterior cross bite and a lower deviated midline (2).

Treatment Objectives

The treatment objectives (5) were to obtain a harmonious facial profile by decreasing the protrusion of the mandible, improve the occlusion, including correction of the anterior crossbite; establishment of ideal overjet and overbite, achievement of a functional molar relationship; and place the dental midlines in the middle of the patient’s face. We planned:

• To set back the mandible to correct the prognathism and the midline deviation.
• To relieve the proclined maxillary incisor position and to relieve the dental compensations.
• To relieve the dental compensations by straightening the mandibular incisors to an upright position over basal bone.

Treatment Alternatives

The first alternative was orthodontic treatment with extraction of 4 premolars. Through the retraction of the mandibular anterior teeth, the anterior crossbite and Class III molar relationships would be corrected and the concave facial profile would be camouflaged. Nevertheless, the mandibular incisors were not suitable for much distal movement because of the thin trabecular bone in the mandibular anterior area that could damage the periodontal tissues by gingival recession, fenestration or dehiscence.

The second alternative was combined surgical and orthodontic treatment. The anterior crossbite would be corrected with a single-jaw surgery; a mandibular setback. The concave profile would be improved...
as well. It was decided to extract the upper second premolars to relieve the dental compensation by repositioning the upper incisors.

The third alternative was to correct the class III malocclusion by miniscrew-assisted mandibular dentition distalization. However, we decided that the skeletal problem was too excessive and required orthognathic surgery.

After we discussed the three alternatives with the patient. He chose the second option.

Treatment Progress
The preoperative orthodontic preparation began on December 2011. Before the levelling and alignment procedures, the maxillary second premolars were extracted to decimate the maxillary incisor inclination and to reduce the acute nasolabial angle.

Pre-adjusted 0.022-in edgewise brackets were bonded to all teeth. The preoperative orthodontic treatment was achieved in 12 months, ending with 0.018 x 0.025 stainless steel surgical archwires for the maxillary and mandibular arches.

The orthognathic surgery involved a set back of the mandible with a bilateral sagittal split osteotomy. This was performed to improve the mandibular projection and establish an Angle Class I canine position with ideal overjet and overbite.

After the surgery, the patient was placed in intermaxillary fixation for 2 weeks. Two months after surgery, finishing was performed with maxillary and mandibular 0.018 x 0.022-in. titanium-molybdenum alloy archwires.

The appliances were removed after 18 months of active treatment. Bonded lingual retainers were fitted to the lingual surfaces of the anterior teeth in both arches. Maxillary and mandibular essix retainers were delivered with instructions to wear them full time for two weeks and then night time.

Treatment Results
The post treatment photographs (Fig. 5) showed that facial aesthetics were improved, and ideal occlusion was achieved with proper overjet and overbite. The maxillary dental midlines coincided with the facial and mandibular midlines.

The occlusion was finished to a therapeutic Class II.

Discussion
The decision for surgical orthodontic treatment for this patient was based on the fact that his primary concern was his facial profile. Before the single-jaw surgery: a mandibular setback, preoperative orthodontic treatment, including decimation of the malocclusion, is necessary.

The dental compensation we performed was intended to retract the proclined maxillary incisors to a normal axial inclination. Lack of optimal dental decimation compromises the quality and quantity of an orthognathic correction. The patient’s teeth were decimated by extracting the upper second premolars and levelling the mandibular arch. This phase was achieved in 12 months.

Conclusion
This case report describes the surgical orthodontic treatment of a young adult man with dental and skeletal class III relationships. The orthognathic treatment was the best option for achieving an acceptable occlusion and a good esthetic result. An experienced multidisciplinary team approach ensures a satisfactory outcome.

Presurgical orthodontics removes all the dental compensations and suggests the extent of the skeletal discrepancy. Normal skeletal base relationship is achieved by osteotomy and setback of the prognathic mandible, postsurgical orthodontics guides the normal occlusal rehabilitation by correcting any emerging dental discrepancies (2).

References
Dr. Fabien Depardieu
Orthodontist specialist at Dr Roze & Associates Dental Clinic fabien@dradubai.com

Wednesday 26th November 7:30pm
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Figure 3. Post treatment photographs

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Dr. Fabien Depardieu
Orthodontist specialist at Dr Roze & Associates Dental Clinic fabien@dradubai.com

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Implant crown restoration
Dental implant competitors shake things up amidst economic uncertainty

By Kristina Vidug, USA

In 2015, the global dental implant market—composed of the sale of dental implant fixtures, final abutments and other devices—was valued at over US$3.7 billion. The European market, valued at nearly one-third of the global market at close to US$1.2 billion, contracted through 2014, as uncertain economic conditions continued to reduce procedure volumes and as more low-cost competitors entered the market, driving down prices.

These factors hampered the expected economic recovery and resumption of growth projected for 2015. As a result, the dental implant market will continue its decline before stabilising in 2015. Only then will the European market slowly begin to recover. Factors such as low gross domestic product growth and high unemployment continue to render dental implant procedures—which are primarily paid out of pocket by patients—cost prohibitive, while alternatives, such as bridges and dentures, that are perceived as more affordable will represent attractive options.

Dental implants were invented in Sweden; as a result, it is not surprising that a great number of premium manufacturers are based in Continental Europe. In the past, premium manufacturers, such as Straumann and DENTSPLY Implants, were able to rely on their long-standing reputations in the market and the high quality of their products to command higher prices than did some of their competitors.

More recently, however, some of the premium competitors have employed strategies to appeal to increasingly cost-conscious consumers. For instance, Straumann has reduced the price of its titanium implants by 15 per cent in Austria, Germany and Switzerland. While the price change only came into effect in the first quarter of this year, the strategy appears to have been effective because the company reported a 6 per cent rise in first-quarter revenue compared with a 6 per cent decrease in the same period last year.

The price reduction has come at a perfect time: while economic conditions begin to slowly improve, consumers are still extremely price sensitive. These price cuts therefore allow dental professionals to offer premium implant products to their patients at a reduced rate.

Straumann’s price reduction is not its only foray into the value market. In the first quarter of this year, the company purchased US$30 million worth of bonds from low-cost South Korean dental implant manufacturer MegaGen. The investment, which will be converted to shares in 2016, will help bolster Straumann’s revenue while allowing it to participate in both the premium and value segments, thus appealing to a wide range of practitioners and patients alike.

Straumann is not the only company shaking things up in the world of dental implants. Zimmer Dental recently announced its acquisition of rival Biomet. While both companies are better known for their orthopaedic products, they are fairly significant competitors in the dental industry as well. Lay-offs are not uncommon when companies merge, especially when the companies in question offer the same types of products. This can have a negative impact on sales in the short term, as the newly conjoined companies’ sale force decreases, leading clients to switch to other competitors.

However, this will not be the case with the Zimmer-Biomet merger, at least not in the short term, as the sales teams from both companies are expected to be retained through the merger. The cost of retaining both sales teams has been estimated at US$400 million. While the effect of this acquisition on the market remains to be seen, the fact that the sales force will not be decreasing bodes well for the newly merged companies, likely resulting in an increased market share in the dental implant segment.

There is discussion of merger and acquisition activity among other companies in the segment too, with Nobel Biocare recently in talks to sell to private equity firms and strategic buyers. While these talks are still in the very early stages, what is certain is that there has been a great deal of activity in the competitive landscape in the past several years.

This, combined with the aforementioned economic factors, is turning the entire market into a dynamic, fast-paced environment. With the dental implant market set to rebound in Europe and with revenues expanding in other countries—particularly in the rapidly developing BRIC and Middle Eastern markets—the global industry is poised for even further change, and the competitive landscape could look entirely different a few years from now.

About the Author

Kristina Vidug is Market Research Analyst at Decision Resources Group, a US-based market information provider.
SameDay Dental Implants® & Teeth
A Surgical & Prosthodontic Protocol

By Costa Nikolopoulos Oral & Maxillofacial Surgeon (S.A.) & Petros Yvanouglou Specialist Prosthodontist (U.S.A.)

The original Branemark protocol advocated the use of a two stage surgical approach where the turned (smooth) implants were buried for several months under the mucosa. With the advent of surface enhanced and tapered implants the protocol later evolved into a one stage approach.

Several clinicians then proceed to immediately load these one stage implants with good success provided good primary stability (more than 45Nm) was achieved at time of implant placement and provided mucromovements could be limited to 100μm. Amples reports have been published on immediate loading of dental implants showing an initial unloaded period of 5 – 6 months is not necessary. From a patient's point of view the reduction of treatment time between implant placement & installation of a functional prosthesis leads to increased patient satisfaction & treatment acceptance.

High treatment acceptance and patient satisfaction are the most important factors for immediate loading of dental implants. In the case of the sinus lift less than 45Ncm torque which can be achieved by using a surface enhanced tapered implant design to enhance lateral compression of bone.

By underprepping, high insertion torque and primary stability can be achieved even in cases of decreased bone density such as is often the case in maxillary alveolar bone and as well as in osteoporotic patients. Primary stability can easily be measured during implant placement with a torque wrench (Fig 4).

If 45Ncm insertion torque is not achieved, the implant should be removed and further bone preparation a 1mm wider implant is placed. This usually results in adequate primary stability of 45Ncm for immediate loading. If 45Ncm insertion torque is still not achieved then again the implant can be removed and replaced with an even wider diameter implant if the available bone width permits. This usually results in adequately high insertion torque and primary stability to enhance lateral compression of bone.

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One Abutment One Time
After bone milling to remove any interfering bone, in multiple implant cases transmucosal multi-unit abutments are placed. In the case of the sinus lift one week later.

Timing of Immediate Loading Dental implants either should be loaded the earliest possible (never exceed ten days after surgery) or alternatively two months after placement. This is because the so-called initial stability (mechanical stability) that an implant has, starts to drop gradually and the implants become more prone to failure if forces are applied. Fortunately, simultaneously a “secondary stability” (Osseointegration) starts to build up. The sum of the two “stabilities” which is demonstrated on the stability graph (Fig. 16), gives us the “total stability.” As a golden rule implants ideally should never be disturbed during the “stability dip” period.

Preoperative Preparation
In order to achieve this protocol, preoperative screening and detailed surgical and prosthodontic planning are required. In single implant cases the healing abutment is fabricated and delivered to the patient during surgery. In multiple implants cases, temporary screw retained acrylic teeth are fabricated with the addition of bite registration material onto the remaining healing caps. The Prosthodontic protocol of SameDay Dental Implants & Teeth is focused and designed around the patient’s needs. It’s fast, efficient and doesn’t compromise quality. The patients are never left without teeth for more than six hours. As a result treatment acceptance is high. All implants with good primary stability (>45Ncm) are immediately loaded with screw-retained teeth. For single implant cases, the final all ceramic screw retained crown is fabricated and delivered to the patient within six hours.

number of implants
In edentulous cases 4 to 6 implants (lips 14 & 15) are placed per arch depending on:
1) Bone volume and quality
2) Implant length & diameter
3) Implant distribution (A-P spread)
4) Patient’s age
5) Patient’s finances (cost to benefit ratio)

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In healed sites where possible the “punch” technique is used (Fig 15).

Alternatively minimal flaps are raised where indicated. This minimally invasive approach to the extraction socket walls is inspected and assessed by good vision with magnifying loops and light illumination. In healed sites where possible the “punch” technique is used (Fig 15).

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4) Patient’s age
5) Patient’s finances (cost to benefit ratio)
Two months after surgery, tissues, two months after surgery.

Adaptation of the final prosthesis. The patient returns for the final adjustment of the implant prosthesis.

The patient is followed up every six months for the first two years and thereafter according to his/her oral hygiene level.

Before/After Digitally Designed Smile

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CAD/CAM Advancements

Recently in order to eliminate this problem, at SameDay Dental Implants® Clinic, CAD/CAM full contour zirconia screw retained implants prostheses are used in selected patients (Fig. 26). Only the front 6 teeth are loaded (buccal) with porcelain to optimize esthetics and passive abutments (titanium) are utilized to eliminate zirconia to titanium wear problems.

Even though zirconia is a technologically sensitive material, the first results (one year) are very promising. However, only time will tell, if zirconia will be the material of choice. The advancements in digital impressions and CAD/CAM technology will further reduce the manufacturing time but most importantly will increase the accuracy and quality of the dental prostheses.

Conclusion

By using tapered angled implants as well as wide immediate molar replacement implants in a prosthetically driven fashion it is possible in most cases to avoid bone grafts, achieve high primary stability and treat patients with implants and passively fitting, screw retained teeth all in the same day (Fig. 27).

This reduction in treatment time, immediate function and cost saving leads to high patient satisfaction and increased treatment acceptance by patients.

Contact Information

Dr. Costa Nicolopoulos BDS, FDSRCS (Eng), MSc, MFD

SameDay Dental Implants\& Osseointegration Center Dubai
4124, 2nd Floor, Dubai Health Care City
tel: 04-3142750/310 info@samdayshy.com

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Beirut International Dental Meeting 2014

By Dental Tribune MEA

Under the high patronage of his Excellency the President of the Parliament of Lebanon Mr. Nabih Berry, Lebanese Dental Association known by its yearly BIDM (Beirut International Dental Meeting) has organized the 24th BIDM 2014 in collaboration with the Saudi Dental Society at BIEL in Beirut on 11-15 September 2014.

Pre-congress courses and workshops took place on September 10 at “USJ” - University St. Joseph - Faculty of Dentistry which was managed by Professor Ghassan Yared and Professor Carina Mehanna, under the supervision of Prof. Nada Naaman, Dean of Faculty of Dentistry.

On the first day of the event the attendees witnessed the ribbon-cutting ceremony followed by a tour of the exhibition exploring the latest dental technologies, equipment and services displayed by numerous key industry leaders and dental manufacturers.

The BIDM 2014 not only opened the doors to open-discussions and learning for the region but allowed the participants to build their skills and use the opportunity for networking by up-to-date knowledge and sharing experiences in the application of technology throughout the event.

President of Lebanese Dental Association, Prof. Elie Maalouf discussed during the opening ceremony: “With the theme “Planning for the Future” we encourage all Lebanese living in Lebanon and abroad, as well as all Arab and foreign dentists to attend this highly regarded meeting, in an effort to plan for a better future, not just scientifically, but culturally and politically.”

Prof. Maalouf further announced, “We should all denounce terrorism and extremist behavior. Attending this meeting and especially in this dire time will tell the world that we are strong together and will show them that no matter how hard they try to separate us we will always find a platform to meet. Lebanon is a small country but it has always reflected to the world a sense of modern civilization and openness to all cultures and religions. Lebanon does not tolerate extremist behavior and will not allow negative media to taint its reputation. Holding ambitious annual dental meetings with world renowned international and local speakers will show the world that we are competing with first world countries regarding scientific achievements”.

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Dentacryl Veneer light activated resin cement was used for cementation of the two laminate veneers. Optra Sticks were used for holding the labial surface of the veneer for better handling processes during cementation. Initial polymerization was made and excess cement was removed with a sharp tip of a probe. Dental floss was used to ensure that there is no trapped cement in between the embrasures. Final polymerization was completed. Intra oral proximal strips were used for better smooth proximal margins Fig.11.

< Page 8

used to etch the fitting surface of each veneer for 60 seconds as recommended by the manufacturers to obtain a clean ceramic surface for durable bonding.

Empress ceramic primer Monobond-S was used as a silane-coupling agent for one minute and then air dried for five seconds according to the manufacturers instructions. One layer of Excite bonding agent was applied on the fitting surface of each veneer for 60 seconds then air thinned for 5 seconds Fig 10.

• Tooth structure surface treatment:
  Transparent strips were used on the proximal surface of adjacent teeth to avoid etching effect. Phosphoric acid 35 % was used to etch the enamel margins of the tooth preparations for 30 seconds and 15 seconds for the dentin areas. Copious air water spray was used to remove the acid for 30 seconds. One layer of Excite bonding agent was applied on the tooth structure and air thinned for five seconds. LED light curing unit was used for curing.

Vario-link Veneer light activated resin cement was used for cementation...
The general secretary of LDA, Dr. Walid Khattar further declared during the ceremony: “Efforts exerted leading to this conference were colossal, we did very important team work as council members, committee members, professional and competent employees, to accomplish this conference. I hope that you will benefit from interesting scientific topics, aiding therefore to dental medicine a new scientific cornerstone.”

The conference further proved to be a vital platform for the participants to share ideas, explore the potential of new advances in technology and foster closurities. The BIDM 2014 gathered under one roof of 6,000 square meters more than 4,500 dental professionals in the dental field.

The scientific conference brought together more than 2,500 dentists registered to the event program from Lebanon and the region and more than 1000 have been registered as visitors to the exhibition area.

This year, despite the difficult situation in the region, the event gathered 56 highly esteemed guest speakers from 16 countries around the world (USA, India, France, Germany, United Kingdom, Italy, Bulgaria, Libya, Greece, Spain, Lithuania, and from the Arab countries Kuwait, Sultanate of Oman, Egypt, Kingdom of Bahrain and KSA) in addition to an interesting panel of Lebanese talented lecturers who will attempt to clarify during 3 exciting days some of the most important issues and dilemmas arising today. They highlighted on areas of ongoing developments and frontiers of research challenges in treatment planning, clinical performance and sustainable measures that are essential for a long-term treatment success. The event also received sponsorship by major market players and dealers in the region and the world leading companies, more than 150 companies were part of a unique huge space offered this year.

The event came to a conclusion with 13 lucky draws sponsored by Lebanese Dental Association during the closing ceremony. Overall, The BIDM 2014 was a resounding success with nothing but positive feedback from the visitors.

The courses this year covered a variety of topics including: Endodontology, restorative dentistry, pedodontontology, laser in dentistry, Surgery and implant loading. Each course received specific continuing education hours in collaboration with CAPP (Center for Advanced Professional Practices) which is an ADA CERP recognized provider.

With Former President of Lebanese republic General Michel Sleiman (406x267)

Scientific Session

Dr Klie Maalouf LDA President, Dr Mohamad El Obaida SDS, Dr Ibrahim Tarwneh Jordanian dental association president

Dr Rahil Doueihy LDA-Tripoly President

Welcome dinner to delegates at Sultan Restaurant

Gala Dinner BIDM 2014

*For bigger apical size preparations, please visit www.fkg.ch
Saliva and Oral Health

By Michael Edgar, Colin Dawes & Denis O’Mullane contributed by to Mahvash Navazesh

Excerpt from Saliva and Oral Health-An Essential Overview for the Healthcare Professional

Saliva plays a significant role in the maintenance of oral-pharyngeal health. Subclinical complaints of a dry mouth (xerostomia) and objective evidence of diminished salivary output (salivary gland hypofunction) are common conditions, particularly in medically compromised older adults. They can result in impaired food and beverage intake, a sundry of oral disorders, impaired food and beverage intake, difficulty eating, chewing, and swallowing, the rate at which they are easily available for use to monitor salivary flow rates. However, there is substantial variability in flow rates that makes it difficult to define diagnostic and therapeutic ranges of glandular flow. Studies in people who have consumed a fiberintake, use of saliva to indicate health but also has a detrimental impact on the quality of life for the sufferer.

An understanding of saliva and its role in oral health helps to promote awareness among oral health care professionals of the problems arising when the quantity and quality of saliva is decreased; this awareness and understanding is important to the prevention and treatment of the condition. There is an extensive body of research on saliva, a clear but colorless fluid. It has been used to indicate an individual’s susceptibility to developing caries, it has also been shown to possess antimicrobial and physiological and pathological changes which are mirrored in saliva. There are multiple benefits of saliva as a diagnostic fluid is that it is easily available for use to monitor salivary flow rates. However, there is substantial variability in flow rates that makes it difficult to define diagnostic and therapeutic ranges of glandular flow. Studies in people who have consumed a fiberintake, use of saliva to indicate health but also has a detrimental impact on the quality of life for the sufferer.

The following article provides an overview of oral complications associated with saliva gland hypofunction. Subjective and objective conditions associated with dysgeusia, diagnosis, clinical implications and management of xerostomia.

Xerostomia and Salivary Gland Hypofunction

Saliva plays a significant role in the maintenance of oral-pharyngeal health. Subjective and objective conditions associated with xerostomia and objective evidence of diminished salivary output (salivary gland hypofunction) are common conditions, particularly in medically compromised older adults. They can result in impaired food and beverage intake, a sundry of oral disorders, impaired food and beverage intake, difficulty eating, chewing, and swallowing, the rate at which they are easily available for use to monitor salivary flow rates. However, there is substantial variability in flow rates that makes it difficult to define diagnostic and therapeutic ranges of glandular flow. Studies in people who have consumed a fiberintake, use of saliva to indicate health but also has a detrimental impact on the quality of life for the sufferer.

The presence of saliva is vital to the maintenance of healthy hard (teeth) and soft (mucosa) oral tissue.4 Severe reduction in salivary output not only results in a rapid deterioration of oral health but also has a detrimental impact on the quality of life for the sufferer.

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(difficulty swallowing), and difficulty chewing food secondary to salivary gland hypofunction can lead to changes in food and fluid selection that compromise nutritional status. The speech and eating difficulties that develop can impair social interactions and may cause some patients to avoid social engagements. Dysphagia increases susceptibility to aspiration pneumonia and colonization of the lungs with Gram-negative anaerobes from the gingival salus.12

Management of xerostomia and salivary gland hypofunction

The initial step in the management of xerostomia is the establishment of a diagnosis. This frequently involves a multidisciplinary team of health care providers who communicate effectively, since many patients have concomitant medical conditions and frequently experience complications of polypharmacy. The second step is scheduling frequent oral health evaluations due to the high prevalence of oral complications.13


If there are remaining viable salivary glands, stimulation techniques using sugar-free chewing gum, candies (sweets), mints are often recommended, because xylitol has an anti-caricogenic effect.

Conclusion

Saliva not only plays a pivotal role in the maintenance of a healthy homeostatic condition in the oral cavity, but contributes to one’s overall health and well-being. Components from saliva interact in different ways with the dentition to protect the teeth. Patients who lack sufficient saliva suffer from many oral diseases, of which caries is only one. To alleviate discomfort they are advised to use saliva stimulants and substitutes which have the function of lubricating the oral surfaces. Chewing sugar free gum is increasingly being viewed as a delivery system for active agents that could potentially provide direct oral care benefits, as it promotes a strong flow of stimulated saliva. The fourth edition of Saliva and Oral Health is available in hard copy or e-book format at www.shawcekthal.com. A full list of references is included in the book.

*Underwriting costs for this Saliva and Oral Health edition were provided by Dr. Michael Dodds and The Wrightley Company.

References


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ORAL HEALTH
Robert Pauley, Jr., DMD
Dr. Pauley has been practicing dentistry in the Atlanta area since graduating from the University of Kentucky College of Dentistry in 1988. Currently enrolled in the Advanced Dental Implant Studies, Dr. Pauley is an Associate Fellow of the American Academy of Implant Dentistry and a Fellow of the International Congress of Oral Implantologists. Would you like to know more? Visit us on the web at www.carestreamdental.com or call 800.944.6365.

The bone pattern and periodontal ligament space surrounding the damaged tooth. In addition, the 3D scan, taken at a 5 cm x 5 cm field of view and 500 voxels, allowed us to rule out buccal or palatal plate fractures before finalizing the treatment plan. The various voxel settings let us select the best exposure time to image the structures we desire to view. This would not have been possible in the past with a panorex or digital 2D radiograph system.

The fact that we were able to provide the patient and her parents with a three-dimensional CBCT of tooth #9 gave them the opportunity to see and understand what was going on under the surface; ultimately resulting in positive acceptance of the treatment plan. I find that the CS 8100 3D unit gives me an incredible level of detail with actual size images that I can view from any angle or cross-section to get the best possible diagnostic image. CS Solutions (CS 5500 intraoral scanner, CS Restore software and CS 5000 milling unit) allows my office the opportunity to fabricate same-day permanent restorations. My patients appreciate the fact that our office is staying up to date with new available technology and giving them a safer environment with less radiation.

We polished, glazed, and added a slight white line on the buccal of #9 to mimic natural tooth #8. The crown was fired in the Ivoclar Programat Oven on e.max glazing setting. After a final try-in, the crown was cemented in place using variolink translucent base and catalyst. We cleaned off the excess cement, verified the final occlusal scheme, and captured a final periapical image verifying cement removal (Fig. 8).

Post-operative instructions were given. The patient and parents were advised to call immediately if there was sensitivity, swelling, questions or concerns. I spoke with the parents and checked on the patient one day and one week postoperatively. She was proud of her new tooth and said it felt “awesome” (Fig. 9).