



Perio health

Study: Healthy gums may equal healthy lungs

►Page 4



Case study

Management of two implants in the esthetic zone

►Page 7



New case management

Materialise Dental launches DentalPlanit

►Page 25

Dental implants can be successful with less root than crown

Dental implants are now a common way to replace a tooth. But a dentist must first determine that an implant restoration can be successful for a particular patient.

As an indicator, dentists use the crown-to-root ratio — how much of the tooth extends above the jawbone and how much is in the bone. However, the ideal crown-to-implant ratio for the replacement tooth has yet to be determined.

A new study in the current issue of the *Journal of Oral Implantology* evaluated the health of implants that had been in place more than five years. By examining the crown-to-implant ratios in these cases, the authors found that this factor was not as important to the success of implants as previously thought.

Radiographs were used to examine 309 single-tooth short-length implant-supported restorations in 194 patients. All the implants had been surgically placed between February 1997 and December 2005.

The ideal crown-to-root ratio for a tooth to serve as an abutment for a partial denture is considered 1 to

→ **IT** page 2



The Academy of Osseointegration's annual meeting will be March 3-5 in Washington, D.C. (Photo/stock.xchg)

Group's annual meeting to focus on 'Combining Fundamental Principles with New Technologies'

Recognizing implant dentistry's global reach, the Academy of Osseointegration will debut an International Symposium to highlight clinical research, technology and treatment advances that may be unfamiliar to U.S.-based practitioners during the AO's 2011 Annual Meeting, taking place March 3-5, in Washington, D.C.

This focus on international innovations is part of the meeting's overall theme, "Back to the Future: Combining Fundamental Principles with New Technologies for the Next 25 Years." The theme will serve as a guide for applying the knowledge gleaned during the last quarter century to the technology of tomorrow, Annual Meeting Program Committee Chair Dr. Tara Aghaloo of Los Angeles said.

"The 2011 annual meeting will illustrate that the most effective technological advances will reinforce fundamental principles and improve outcomes," she said. "To maintain the credibility of our rapidly growing field, we must avoid embracing technologies that do neither."

→ **IT** page 5

AD

GOT BONE?

FREE!

ACE Surgical does. See page 3 for complete details.

PRSRST STD
U.S. Postage
PAID
South Florida, FL.
PERMIT #764

Dental Tribune America
116 West 23rd St., Ste. 500
New York, NY 10011

← **m** page 1

2 — twice as much root as crown. But previous studies have given mixed results about ratios for implanted teeth. Excessive crown-to-implant ratios have been named as detrimental to long-term survival of an implant, while disproportionate ratios have been noted in high rates of implant survival.

The current study found an average crown-to-implant ratio of 2 to 1. Natural teeth with such ratios would often be recommended for extraction and replacement.

The authors found that stable implants could be produced with less of the tooth serving as root. Additionally, the study found no statistically significant relationship between increasing crown-to-implant ratios

and decreasing bone-to-implant contact levels around the implant.

Full text of the article, "Crown-to-Implant Ratios of Short-Length Implants," Journal of Oral Implantology, Vol. 36, No. 6, 2010, is available at www2.allenpress.com/pdf/orim-36-06-425-433.pdf.

About the Journal of Oral Implantology

The Journal of Oral Implantology (JOI) is the official publication of the American Academy of Implant Dentistry and of the American Academy of Implant Prosthodontics. It is dedicated to providing valuable information to general dentists, oral surgeons, prosthodon-



tists, periodontists, scientists, clinicians, laboratory owners and technicians, manufacturers and educators. The JOI distinguishes itself as the first and oldest journal in the world devoted exclusively to implant dentistry. For more information about the journal or society, visit www.joi-online.org. **IT**

IT Corrections

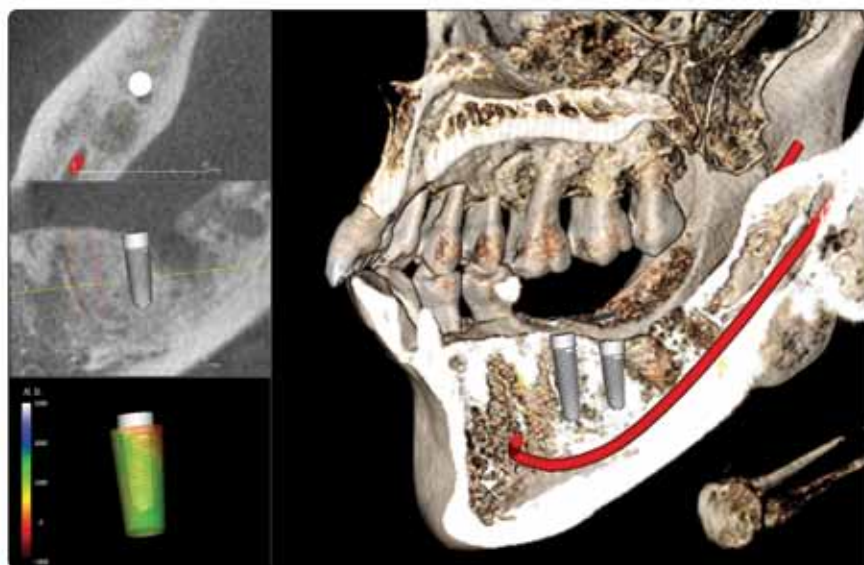
Implant Tribune strives to maintain the utmost accuracy in its news and clinical reports. If you find a factual error or content that requires clarification, please report the details to Managing Editor Sierra Rendon at s.rendon@dental-tribune.com.

AD

Implant Planning in 20 Seconds

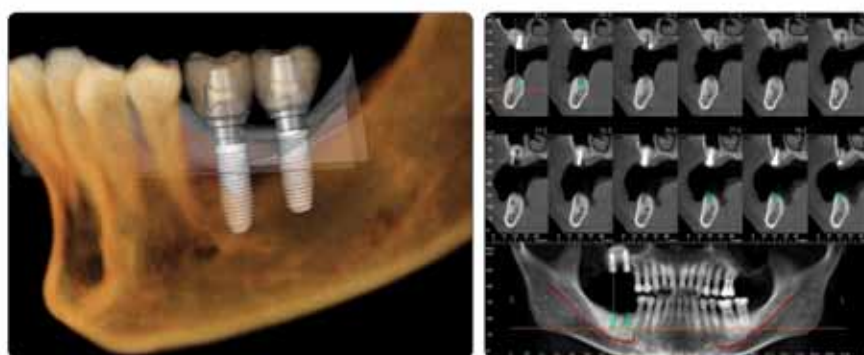
Visit us at the AO Annual Meeting,
booth #349.

with **Invivo5**



High quality 3D Implant planning system from CA, USA.

- Extremely fast and easy
- High quality and accurate visualizations
- No conversion, pre-processing, or preparation
- Software developed from Silicon Valley, California
- Surgical Guide made from California
- Expert support provided from California



Find out why so many doctors choose Invivo5. Call for a demonstration today!



www.anatomage.com Tel. 408-885-1474 Fax 408-295-9786 111 N. Market St. #800 San Jose, CA 95113

Anatomage

IMPLANT TRIBUNE

The World's Newspaper of Implantology - U.S. Edition

Publisher & Chairman
Torsten Oemus
t.oemus@dental-tribune.com

Chief Operating Officer
Eric Seid
e.seid@dental-tribune.com

Group Editor & Designer
Robin Goodman
r.goodman@dental-tribune.com

Editor in Chief
Sascha A. Jovanovic, DDS, MS
sascha@jovanoviconline.com

Managing Editor/Designer
Implant & Endo Tribunes
Sierra Rendon
s.rendon@dental-tribune.com

Managing Editor/Designer
Ortho Tribune & Show Dailies
Kristine Colker
k.colker@dental-tribune.com

Online Editor
Fred Michmershuizen
f.michmershuizen@dental-tribune.com

Account Manager
Humberto Estrada
h.estrada@dental-tribune.com

Marketing Manager
Anna Wlodarczyk
a.wlodarczyk@dental-tribune.com

Marketing & Sales Assistant
Lorrie Young
l.young@dental-tribune.com

C.E. Manager
Julia Wehkamp
j.wehkamp@dental-tribune.com

International C.E. Sales Manager
Christiane Ferret
c.ferret@dtstudyclub.com

Dental Tribune America, LLC
116 West 23rd St., Ste. 500
New York, NY 10011
Phone: (212) 244-7181, Fax: (212) 244-7185



Published by
Dental Tribune America

© 2011, Dental Tribune America, LLC
All rights reserved.

Dental Tribune makes every effort to report clinical information and manufacturer's product news accurately, but cannot assume responsibility for the validity of product claims, or for typographical errors. The publishers also do not assume responsibility for product names or claims, or statements made by advertisers. Opinions expressed by authors are their own and may not reflect those of Dental Tribune International.

Editorial Advisory Board

Dr. Sascha Jovanovic, Editor in Chief

Dr. Bernard Touati

Dr. Jack T. Krauser

Dr. Andre Saadoun

Dr. Gary Henkel

Dr. Doug Deporter

Dr. Michael Norton

Dr. Ken Serota

Dr. Axel Zoellner

Dr. Glen Liddelow

Dr. Marius Steigmann

Academy of Osseointegration
ANNUAL MEETING SPECIAL

3 DAYS ONLY**

BUY 5 RESORBABLE
COLLAGEN MEMBRANES
AND GET ANOTHER FREE*

FREE

BUY ANY 5 VIALS OF
NuOSS™ GRANULES
AND GET ANOTHER FREE*

FREE

BUY ANY 5 BLOCKS OF
NuOSS™ COLLAGEN AND
GET ANOTHER FREE*

FREE

BUY ANY 5 **alloOSS™**
GRANULES or ANY 5 BLOCKS
AND GET ANOTHER FREE*

FREE



Visit **ACE Surgical** at **Booth #227**

*Lowest priced item is the FREE item. Orders must be placed at the ACE Surgical booth during the AO Annual Meeting. This offer valid through 3/5/11.

**Didn't attend the AO Meeting? These Bone Grafting items, and more, are our featured ANNUAL SAVINGS items in March. Visit the website for details!

Implants see fastest growth in emerging markets

By Daniel Zimmermann, Group Editor
Dental Tribune International

Premium manufacturers are driving the market for dental implants and bone-craft substitutes in countries such as China and India, according to iData Research.

In a market report, the Canada-based consulting company has forecasted the market volume of both countries for dental implants to exceed \$400 million by the year 2017.

Strong double-digit growth rates were also predicted for Brazil, another potent global emerg-

ing market.

The rapid growth of dental implants will also drive the market for dental biomaterials and bone-craft substitutes, the report states.

The number of procedures using these materials is expected to reach almost 400,000 in both countries by 2017.

"The de-regulation of dental care services in China and India has fueled growth of private dental clinics in major urban centers," said Dr. Kamran Zamanian, CEO of iData.

"In addition, the low cost of

labor has kept implant procedural costs relatively low, promoting dental tourism from countries such as Japan, South Korea and Australia."

Markets in China and India are currently dominated by a few foreign manufacturers such as Dentsply-Friadent, Nobel Biocare or Straumann.

The Swiss-based company particularly has increased its market share in China and South Eastern Asia with the introduction of products including the Bone Level Implant and SLActive dental implant surface tech-

nology.

Global business consultant Frost & Sullivan recently awarded the company with its 2010 Asia Pacific Dental Implant Company of the Year Award for superior performance in different areas such as strategic product development.

Europe still holds the largest share of the \$3.2 billion global dental implant market followed by the United States, Korea and Japan.

The market itself is projected to grow by more than 20 percent during the next five years.

AD

You know how important photographs are to your practice, but you don't know who to turn to for advice. PhotoMed understands your **needs** and can help you choose the right camera. We also include **a** support and loan equipment program for the life of the camera so you have someone to turn to if you have questions.

PhotoMed dental cameras feature the best digital camera equipment available. The Canon G11, Rebel XS and T2i are great choices.

Choosing a quality **dental** system for your practice doesn't have to be difficult. Call the experts at PhotoMed and we'll help you with all of your **camera** questions.

PhotoMed www.photomed.net • 800.998.7765



**Special: Visit us at
Academy of Osseointegration
Annual Meeting (booth #106)
for new products
and meeting specials!**

Healthy gums may lead to healthy lungs

Maintaining periodontal health may contribute to a healthy respiratory system, according to research published in the Journal of Periodontology. A new study suggests that periodontal disease may increase the risk for respiratory infections, such as chronic obstructive pulmonary disease (COPD) and pneumonia. These infections, which are caused when bacteria from the upper throat are inhaled into the lower respiratory tract, can be severely debilitating and are one of the leading causes of death in the United States.

The study included 200 participants between the ages of 20 and 60 with at least 20 natural teeth. Half of the participants were hospitalized patients with a respiratory disease such as pneumonia, COPD or acute bronchitis, and the other half were healthy control subjects with no history of respiratory disease. Each participant underwent a comprehensive oral evaluation to measure periodontal health status.

The study found that patients with respiratory diseases had worse periodontal health than the control group, suggesting a relationship between respiratory disease and periodontal disease. Researchers suspect that the presence of oral pathogens associated with periodontal disease may increase a patient's risk of developing or exacerbating respiratory disease. However, the study authors note that additional studies are needed to more conclusively understand this link.

"Pulmonary diseases can be severely disabling and debilitating," said Donald S. Clem, DDS, president of the American Academy of Periodontology. "By working with

Session: 'How to avoid implant catastrophes'

Catastrophic implant failure will be the topic of the Academy of Osseointegration's 2011 Annual Meeting's closing session, as academy members and guests review "Major Catastrophes and How to Avoid or Handle Them," on Saturday, March 5.

"Exploring catastrophic failures helps to further our professional knowledge, since we tend to learn most from mistakes," explained Annual Meeting Program Committee Chair Dr. Tara Aghaloo of Los Angeles. "This session will offer an excellent educational opportunity for clinicians, whether they are new to the field or have many years of experience."

Attorney Michael Ragan will open the program with a presentation on implant claims, damages and remedies. Other AO Annual Meeting highlights will include:

- **"Two-Track" Scientific Program:** The Surgical Track will explore prosthetic concepts, computer-



Dr. Tara Aghaloo

guided implant dentistry, hard- and soft-tissue augmentation and how to determine success. The Restorative Track will cover maxillary overdentures, short implants, digital impressions and CAD/CAM restorations and other surgical concepts. (Saturday, March 5).

- **Round Table Clinics:** Fifteen separate sessions offer attendees the opportunity to discuss diverse implant dentistry topics — everything from stem cell-based treatments and advances in ridge expansion to maxillary sinus augmentation — in small, informal settings with presenters. (Friday, March 4)

- **Limited Attendance Lectures:** Thirteen limited attendance lectures will increase interaction between annual meeting attendees and world-class clinicians on a range of topics. Sessions include implant esthetics, treatment planning for complex implant restorations, management of failed sinus grafts, implant provisionalization and more. (Friday, March 4)

- **Corporate Forum:** AO's 2011 Corporate Forums will feature manufacturer-hosted educational sessions that showcase the latest research, products, techniques and developments. (Thursday, March 3)

- **Allied Staff Program:** The AO

Annual Meeting's Allied Staff Programs offer concurrent sessions designed for dental lab technicians and hygienists. The daylong series of programs will focus on topics that range from growing a surgical implant practice and contemporary implant maintenance to CAD/CAM information and new products. (Saturday, March 5)

"Allied staff sessions will emphasize the importance of the team approach to patient care," Aghaloo said. "New technologies and clinical applications are being introduced at an increasingly rapid rate. It is essential that allied staff professionals understand these concepts and how they apply to implant dental practices."

Complete program and registration information for the 2011 AO Annual Meeting is available online at the academy's website at www.osseo.org.

(Source: Academy of Osseointegration)

← page 1

International Symposium debut

The International Symposium, to be held Friday, March 4, will offer presentations by a combination of established and up-and-coming speakers. The symposium will be moderated by Drs. Mark Handelsman, Santa Monica, Calif., and Kenji Higuchi, Spokane, Wash., and topics and presenters include:

- "Management of the Deficient Maxilla," by Dr. Joan Pi Urgell of Barcelona, Spain.

- "Evidence-Based Protocols for Anterior Esthetics," by Dr. Carlos Araujo of Sao Paulo, Brazil.

- "Use of Mesenchymal Stem Cells in Alveolar Bone Augmentation," by Dr. Minoru Ueda of Nagoya, Japan.

- "Accuracy of Computer-Guided Implant Placement Using a Mucosa-Supported Surgical Template" by Dr. Dehua Li of Xi'an, China.

- "Future Horizons for Growth Factor Applications in Implant Reconstruction," by Dr. Henning Schliephake of Göttingen, Germany.

- "Esthetic Design in Complex Cases," by Dr. Fernando Rojas of Viscaya, Castellon, Spain.

'Point/Counterpoint' approach to implant controversies

"Point/Counterpoint" sessions will provide a forum for debate on "Treatment of the Esthetic Zone," Friday, March 4.

Drs. Michael Norton of London, England, and Craig Sirota of New York, N.Y., will moderate a series of discussions featuring opposing viewpoints on a range of topics:

- "Implant Restorations: Analog vs. Digital Technology." Opposing viewpoints on "tried-and-true" analog technology for implant

restorations vs. computer-assisted approaches will feature Drs. Baldwin W. Marchack (analog) and Christopher B. Marchack, Pasadena, Calif., in a debate pitting father against son.

- **"Papilla Augmentation: Prosthetic Enhancement of Soft Tissues."** Dr. Christian Coachman, Sao Paulo, Brazil, will outline a three-dimensional prosthetic reconstruction option to enhance soft-tissue architecture. Dr. Sonia S. Leziy of North Vancouver, BC, Canada, will advocate solutions by surgical and restorative team members.

- **"Traditional Flap Approach vs. Flapless Surgery."** Clinical evidence demonstrating the advantages of flapless surgery will be presented by Dr. Stephen T. Chen, IV, of Melbourne, Australia. Dr. Anthony G. Sclar of Miami, Fla., will specify individual case factors for determining use of a traditional flap versus a minimally invasive approach.

- **"Immediate Implant Provisional Restoration."** Dr. Stephen J. Chu of New York, N.Y., will advocate on behalf of immediate placement by addressing current concepts, research and innovations and how they enhance treatment.

- **"Guidelines for Selecting Implant/Prosthetic Protocols in the Esthetic Zone."** Dr. German O. Gallucci of Boston will present an analysis of clinical considerations within the context of their direct application to esthetic implant/prosthetic rehabilitations and current scientific evidence.

The point/counterpoint format will also drive debate during the meeting's opening symposium, "Controversies in Implant Dentistry" on Thursday, March 3.

"Both the opening symposium and 'Point/Counterpoint' sessions will feature respected implant professionals debating ongoing controver-

sies, while audience members will engage in the discussion through use of audience response technol-

ogy," Aghaloo said.

(Source: Academy of Osseointegration)

AD

STABILIZE · CUSHION · RETAIN

"Two and a half years ago I tried 5 different mini implant systems for denture stabilization. While all systems produced results, I quickly settled on Atlas Denture Comfort as my favorite due to its flapless surgical protocol, low-profile retentive head and easy maintenance. It's as simple as placing a post and doing a reline."

—Nels Ewoldsen, DDS, MSD, York, PA

Atlas Denture Comfort NARROW-BODY IMPLANTS

THE EASY-TO-LEARN ATLAS DENTURE COMFORT TECHNIQUE

It's the perfect system to start treating your mandibular denture patients, all without O-rings, housings or adhesives. The low start up costs and economically priced implants make it easy for you to expand into this modality at your own pace.

- Grow Your Practice
- Life Changing for Your Patients
- Easy to Learn & Implement

HANDS-ON WORKSHOP

Mar. 23, 2011 Bay Area, CA
Apr. 1, 2011 Kansas City, KS
Apr. 29, 2011 Cleveland, OH
May 4, 2011 Chicago, IL
May 20, 2011 Charlotte, NC

For additional courses and more information on educators visit www.dentatus.com or call 1-800-323-3136

©2011 Dentatus USA, Ltd. • Patented and Patents Pending



*Back to the Future: Combining Fundamental Principles
with New Technologies for the Next 25 Years*

26th Annual Meeting

March 3-5, 2011



**Academy of
Osseointegration**

*Walter E. Washington
Convention Center*

Washington, D.C.

For details about the meeting, visit osseointegration.org
or scan this QR Code with your smartphone:

If you don't already have a QR Code reader in your
phone, many free apps are available for download.



osseointegration.org

Management of two implants in the esthetic zone

By Saghi Parham, DDS

A medically and periodontally stable 24-year-old woman presented with two failing root canals on teeth #8 and #9. Her dental records indicated both teeth were endodontically treated twice before. The first root canals were performed when she was 18 years old due to a trauma incident and again six years later.

Two weeks prior to presenting at our office, the patient stated she had another accident causing trauma to her two maxillary centrals. A new series of radiographs revealed apical infections on both teeth (Fig. 1). Both teeth were deemed restoratively hopeless (Fig. 2).

Treatment plan

The patient was given the option to have a removable partial denture, fixed partial denture or implants. The following treatment was performed:

- Extraction of teeth #8 and #9 and maxillary periodontal esthetic osseous surgery.
- Temporization with a resin-bonded fixed partial denture during healing period.
- Placement of implants for #8 and #9.
- Six-month healing period.
- Placement of final implant crowns.
- Extraction and socket preservation.

The teeth were extracted followed by a thorough degranulation and debridement of the extraction sites. No dehiscence or fenestration was detected, and no graft material was placed in the extraction sites. The space was then temporized with a resin-bonded fixed partial denture (Fig. 3).

Esthetic periodontal osseous surgery

The primary goal for this procedure was to eliminate the "gummy smile." Osteoplasty was followed by approximately 1 to 1.5 mm of osteotomy. The flap was repositioned apically (Figs. 4 and 5).

Implant placement

After osteotomy preparation, two internal-hex implants with S.L.A. (sand-blasted with large grit and acid etching) surfaces were placed (Fig. 6).

A 3.8 mm x 12 mm implant was placed into site #8 and a 3.4 mm x 12 mm implant was placed into site #9 (Implantium S.L.A. implant by Dentium USA, Cypress, Calif.). Primary stability was achieved, and healing abutments were placed. The site was re-temporized using the same

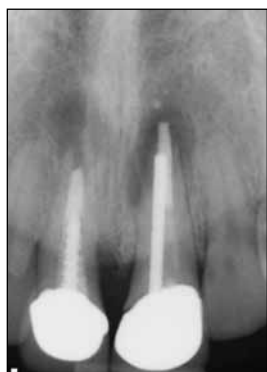


Fig. 1:
Pre-op
radiograph.
(Photos/
Provided by
Dr. Saghi
Parham)



Fig. 2:
Pre-op smile

AD

BioHorizons Global Symposium 2011

Carl Misch			
Edward P. Allen			
Hom-Lay Wang			
Marius Steigmann	Michael Pikos	Myron Nevins	Craig Misch
Scott Ganz	Maurice Salama	Jay Malmquist	Bach Le
Lyndon Cooper	Gerhard Iglhaut	Cary Shapoff	Hamid Shafie
Lewis Cummings	Spyros Botos		
Michael Reddy	Jack Ricci		
Randy Resnik	Arthur Novaes		
Mark Setter	Bob Winter		



Influenced by architect Frank Lloyd Wright, the Arizona Biltmore in Phoenix is a true destination hotel and resort.

April 28 - May 1 Phoenix, Arizona

Please join us at the prestigious Arizona Biltmore Hotel for the 2011 BioHorizons Global Symposium. Our Symposium addresses a wide range of dental implant controversies including immediate loading, implant aesthetics, implant complications and tissue regeneration. It is the perfect opportunity to stay current on the latest treatment options and remain aware of what techniques and products are supported by peer-reviewed research. We hope to see you there.



SPMP10229 Rev B NOV 2010

To register, contact **BioHorizons**
symposium@biohorizons.com
 888.246.8338
 or visit www.biohorizons.com



BIOHORIZONS
SCIENCE • INNOVATION • SERVICE

ASEPTICO®

1-866-244-2954
CALL TOLL FREE

New **LED** Implant Handpiece & Motor

PLATINUM PKG
LED MOTOR & FIBER OPTIC HANDPIECE

\$5,430

- Our best Implant/Endo/Oral Surgery Motor, now with LED
- Multi-function foot control
- Our best Implant handpiece, now with fiber optics!

**SAVE
\$960**

AHP-85MBFO-CX
20:1 Fiber Optic HP

1-866-244-2954

P.O. Box 1548 • Woodinville, WA 98072, USA
www.aseptico.com • info@aseptico.com

Offer Expires: March 31, 2011

Promo Code: AT-0311

AEU-7000L-70V
LED Combo Motor



Fig. 3



Fig. 4



Fig. 5

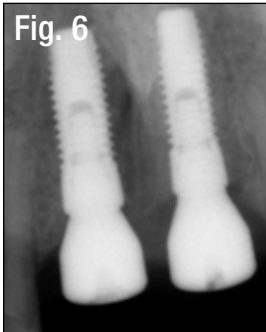


Fig. 6



Fig. 7

Fig. 3: Temporary resin-bonded fixed partial denture.

Fig. 4: Esthetic periodontal osseous surgery.

Fig. 5: Results of esthetic gum lift.

Fig. 6: Radiograph showing placement of two implants in spaces #8 and #9.

Fig. 7: Radiograph showing finalized implant prosthetics.

← **in** page 7

resin-bonded fixed partial denture that was used during the first healing phase.

Final prosthetics

Final restoration of both #8 and #9 implants was performed at six months. The marginal height and contours of both implants matched, and a periapical radiograph revealed sufficient bone height around the fixtures (Figure 7).

The patient was happy with the functional and esthetic results (Figure 8). **in**



Fig. 8

Fig. 8: Final smile.

II About the author



Dr. Saghi Parham received a bachelor of science degree with a major in biology from the University of California, Los Angeles. She received her doctor of dental surgery degree from the University of Southern California, School of Dentistry.

AD

NobelReplace™

The world's most used implant system.*

Internal tri-channel connection for accurate and secure prosthetic restorations.

TiUnite® surface and Groovy™ to enhance osseointegration.

Implant design that replicates the shape of natural tooth roots.

Color-coded system for accurate and fast component identification and ease of use.

Color-coding: step-by-step drilling protocol for predictable surgical procedures.

© Nobel Biocare Services AG, 2011. All rights reserved. Nobel Biocare, the Nobel Biocare logo and all other trademarks are, if applying, the property of Nobel Biocare.

* Source: Millennium Research Group

NEW

Now also available in 11.5 mm length

Versatility, ease-of-use and predictability have made NobelReplace Tapered the most widely used implant design in the world.* NobelReplace Tapered is a general use, two-piece implant system that performs both in soft and hard bone, one- and two-stage surgical procedures, while consistently delivering

optimal initial stability. NobelReplace Tapered is a system that grows to meet the surgical and restorative needs of clinicians and their patients – from single-tooth restorations to more advanced multi-unit solutions. Whether clinicians are just starting or are experienced implant users, they will benefit from a system that

is unique in flexibility and breadth of application. Nobel Biocare is the world leader in innovative and evidence-based dental solutions. For more information, contact a Nobel Biocare representative at 800 322 5001 or visit our website, www.nobelbiocare.com

Nobel Biocare USA, LLC. 22715 Savi Ranch Parkway, Yorba Linda, CA 92687; Phone 714 282 4800; Toll free 800 993 8100; Tech. support 888 725 7100; Fax 714 282 9023

Nobel Biocare Canada, Inc. 9133 Leslie Street, Unit 100, Richmond Hill, ON L4B 4N1; Phone 905 762 3500; Toll free 800 939 9394; Fax 905 900 4243

Disclaimer: Some products may not be regulatory cleared/released for sale in all markets. Please contact the local Nobel Biocare sales office for current product assortment and availability.