

# implants

the journal of oral implantology

1 2012

| **case report**

Laser-assisted treatment

| **clinical**

Implant retained crowns

| **business**

Marketing your practice

# **Clinical Innovations** **CONFERENCE 2012**

**18th and 19th May 2012**

**Millennium Gloucester Hotel &  
Conference Centre, London Kensington**

**info@smile-on.com | [www.clinicalinnovations.co.uk](http://www.clinicalinnovations.co.uk) | 020 7400 8989**

## **Switch on to new ideas**

### **Speakers:**

Prof Nasser Barghi

Dr Richard Kahan

Prof Gianluca Gambarini

Dr Wyman Chan

Dr John Moore

Dr Ajay Kakar

Dr Sandeep Senghera

Dr Nilesh Parmar

Dr Basil Mizrahi

Prof Fraser McCord

Dr Amit Patel

Dr Anthony Roberts

Ms Mhari Coxon



**EARLY BOOKING DISCOUNT**



# Dear Reader,



Lisa Townshend

**Welcome to this** issue of *Implants*. I hope you find it an enjoyable and informative read.

In this issue we have something for everyone! Of particular interest is the article by Drs Topete, where they discuss the use of multiple implants for the replacement of each tooth root.

In addition, Nilesch Parmar has submitted an article highlighting the usefulness that Cone Beam Computed Tomography (CBCT) in treatment planning and execution.

Looking at the business side of running an implant practice, the profession's most influential practitioner for 2012, Dr James Goolnik, writes about successfully marketing your practice.

Dr Philip Friel looks at the delicate balance between form and function when placing implants in the aesthetic zone; in this instance discussing the technique of immediate loading.

Remember we are here for you, the reader. If there is something you would like to see or if you have an article you would like to contribute, please get in touch – I'd love to hear from you.

Until next time...

Lisa Townshend

Group Editor  
*Implants*



## | editorial

- 03 Dear **Reader**  
\_Lisa Townshend

## | business

- 38 **My marketing plan**  
\_James Goolnik

## | news

- 06 Driving patients to dentists  
08 Study hints at why gums suffer with age

## | equipment

- 42 **The surgical Microscope of Implant Dentistry**  
Improved Clarity, **Improved Precision**  
\_John Woods

## | case report

- 09 The use of **Er: YAG in laser-assisted** broken  
abutment screw treatment  
\_Avi Reyhanian  
16 **44 Roots - 44 Implants**  
\_Drs Topete

## | manufacturer news

- 44 manufacturer news

## | technique

- 22 Immediate implant placement and temporisation  
**in the aesthetic zone**  
\_Dr Philip J Friel

## | diary dates

- 48 2012/Europe/UK

## | clinical

- 26 CBCT assisted Implant Therapy  
\_Nilesh R Parmar  
32 Case Study: **Implant retained crowns**  
\_Dr Shushil Dattini

## | about the publisher

- 49 \_Guidelines for submission  
50 \_Imprint

Cover story: This month's image can be found in the article 44 Roots - 44 Implants by Drs Topete



# Discover Atlantis™ crown abutment

Atlantis™ crown abutment is an efficient, effective and aesthetic alternative to traditional cast abutments for single-tooth, screw-retained restorations.

Like Atlantis™ patient-specific CAD/CAM abutments for cement-retained restorations, the Atlantis crown abutment is uniquely designed from the final tooth shape for more natural aesthetic results and available for all major implant systems. It is also precision-milled from a solid blank of biocompatible zirconia, which eliminates the need to cast with precious metals.

What's more, because porcelain is applied directly to the Atlantis crown abutment, it can be easily retrieved, if needed, and the time and cost of preparing a separate coping is recaptured.

Atlantis crown abutment is available in five shades, including a new translucent zirconia in white. It can be placed in all positions in the mouth and is covered by a comprehensive warranty.

For more on the benefits of Atlantis™ screw- and cement-retained solutions, visit [www.astratechdental.co.uk](http://www.astratechdental.co.uk).

*Experience the freedom of unlimited possibilities. Experience Atlantis™.*



# ADI implant courses for dental nurses

Due to the resounding success following the launch of the ADI Dental Nurses' Course last year, the ADI is continuing the Original Dental Nurses' Course for 2012 and has created an Advanced Dental Nurses' Course.

The Original One-Day Course on Dental Implants for Dental Nurses aims to increase the understanding of dental implantology to dental nurses. The course caters for the inexperienced dental nurse, offering nurses the knowledge and confidence to support the operator with surgical implant placement and subsequent restorative appointments.

The Advanced One-Day Course entitled 'Surgical Dental Im-

plant Procedures for Dental Nurses' has been created for dental nurses who are experienced in assisting with implant placement or have completed the Original One-Day Course.

The course aims to examine the dental nurses' role in assisting with advanced surgical procedures in implant dentistry. Upon completion, nurses will recognise the instruments required, the process and the indications for each of the procedures.

The courses are located in London and Edinburgh. Both courses are booking up fast, with the first 2012 London date for the Original Nurses' Course already full. For more information visit [www.adi.org.uk](http://www.adi.org.uk) or call the ADI on 020 8487 5555.

## Driving patients to dentists

Nobel Biocare has launched [www.allon4-dentist.co.uk](http://www.allon4-dentist.co.uk), a new consumer website to encourage patients to contact authorised All-on-4™ dentists for life-changing treatment.

All-on-4™ is a revolutionary solution for edentulous patients, who receive an aesthetic, fully functioning, fixed full arch prosthesis in a single day, using only four implants.

[www.allon4-dentist.co.uk](http://www.allon4-dentist.co.uk) is designed for intuitive and easy navigation, directing patients towards their nearest qualified All-on-4™ dentist with a 'postcode finder'. So far, more than 40 practices from all over the UK are on the site, listed by geographic location. Patients can view the practice's profile information, contact telephone number, address and website.

The site clearly explains the process of All-on-4™ in layman's terms and reassures patients with 'before and after' images and video testimonials. They are also reminded of the benefits that fixed teeth bring to their health, confidence and lifestyle.

Dentists who wish to be added to the website must be certified by Nobel Biocare as Centres of Excellence for the All-on-4™ procedure. This involves specific training and surgical experience and use of the scientifically proven products from Nobel Biocare.

For further information, or to be added to the site, please contact Nobel Biocare on 0208 756 3300 or visit [www.nobel-biocare.com](http://www.nobel-biocare.com).

## BioHorizons unveil mobile app



BioHorizons, a dental implant company, has announced a new mobile application allowing Apple iPad mobile digital device users access to the latest BioHorizons product information. The free app is designed to conveniently provide dental clinicians with relevant videos and literature in a single location.

"We are proud to introduce an iPad application developed to provide up-to-date, relevant information about our products," said Todd Strong, Chief Operating Officer of BioHorizons.

With the new app, dental professionals have the ability to easily share educational materials with their patients. Users can also reference surgical manuals and technique guides for the many BioHorizons implant systems.

"Our new app gives dental professionals quick, accessible information for placing and restoring BioHorizons implants on the most widely accepted digital platform. We continue to provide our customers advanced technologies that help them to excel in their practice," Strong said.

BioHorizons literature and videos are optimised for the iPad and conveniently available offline. Automatic updates occur anytime a Wi-Fi connection is available.

This user-friendly app is free and filled with features. It can be downloaded from a link on the BioHorizons website [www.biohorizons.com](http://www.biohorizons.com) or on the iTunes store.



## iCHIROPRO THE SMART WAY TO YOUR SUCCESS



The only control system offering the pre-programmed clinical sequences of the main implant brands is now available with a dedicated application for touchscreen tablets.

Discover the perfect working balance between your iPad\* and exceptional electronics for controlling the MX-i LED micromotor. The most powerful motor on the market, with LED lighting guaranteeing a very long service life, is now also equipped with ceramic ball bearings that are lubricated for life.

The 20:1 L Micro-Series contra-angle and the new iChiropro system redefine ergonomics and ease of use.

\* Compatible with iPad and iPad 2



**Bien-Air UK Limited**

Arundel House Unit 1 - Ground Floor Amberley Court Whitworth Road Crawley, West Sussex, RH11 7XL Tel. +44 (0)1293 550200  
Fax +44 (0)1293 520481 chiropro@bienair.com www.ichiropro.com

# Study hints at why gums suffer with age

New research from Queen Mary, University of London in collaboration with research groups in the USA sheds light on why gum disease can become more common with old age.

The study, published in *Nature Immunology*, reveals that the deterioration in gum health which often occurs with increasing age is associated with a drop in the level of a chemical called Del-1.

The researchers say that understanding more about Del-1 and its effects on the body's immune system could help in the treatment or prevention of serious gum disease.

Periodontitis is a disease of the gums which causes bleeding and bone loss which can, over time, lead to loss of teeth. It affects about 20 per cent of the UK population and is caused by an over-active immune response to bacteria that grow in the mouth.

As people age they are more likely to suffer from inflammatory diseases, including gum disease.

The new research investigated gum disease in young and old mice and found that an increase in gum disease in the older animals was accompanied by a drop in the level of Del-1. This protein is known to

restrain the immune system by stopping white blood cells from sticking to and attacking mouth tissue.

Mice that had no Del-1 developed severe gum disease and elevated bone loss and researchers found unusually high levels of white blood cells in the gum tissue.

When they treated the gums of the mice with Del-1, the number of white blood cells dropped, and gum disease and bone loss were reduced.

The researchers say their findings could be the basis for a new treatment or prevention of gum disease.

Mike Curtis is Professor of Microbiology at Queen Mary, University of London, Director of the Blizard Institute and the lead on the microbiological studies in the research. He said: "Periodontitis is an extremely common problem and we know that the disease tends to be more common as we get older.

"This research sheds some light on why ageing makes us more susceptible and understanding this mechanism is the first step to an effective treatment." \_

## Dental Laboratories Launch 'The British Bite Mark'

NHS & Private dental patients in the UK who are about to have a new crown, implant, denture or veneer fitted are now being offered the opportunity to find out where their appliances have been made, following the launch of the 'British Bite Mark' by the Dental Laboratories Association.

In recent months there have been a significant number of dentists looking to send their prescriptions to dental laboratories in the Far East to help reduce their overheads, rather than using the traditional route of dental laboratories based in the UK.

The Dental Laboratories Association appreciate that the different levels of regulation and professional requirements can be confusing and difficult for patients to understand and therefore have looked to design a logo that at a quick glance will help inform the patient that their dental appliance has been manufactured in the UK and meets the UK regulatory requirements.

At the launch of the British Bite Mark campaign, Richard Daniels, Chief Executive of the Dental Laboratories Association said: "In these turbulent economic times it is understandable that dental practices are looking to cut costs, however by sourcing crowns, bridges, dentures and veneers from dental laboratories in the Far East just to save money isn't acceptable without making the patient aware.

"I believe that by introducing the British Bite Mark, we are helping patients instantly recognise where their appliance has been manufactured and that it complies with UK regulations, with the ultimate aim of ensuring patients receive a transparent service from their dentist."

Over the coming months, the British Bite Mark will feature strongly in local and national media, as well as in all the major social networking sites. The Dental Laboratories Association will also be issuing information to health centres, Libraries and dental practices to help educate the patient about the difference between appliances manufactured in the UK and overseas.\_



**British Dental Technology**  
Clinically Compliant | Professionally Produced

# The use of Er:YAG in laser-assisted **broken abutment** screw treatment

Author \_Avi Reyhanian



Fig. 1



Fig. 2



Fig. 3

## \_Abstract

\_Dental implants are a functional and aesthetic solution to partial and total edentulism. Although the overall success rate of implant dentistry is very high, more than 90 per cent of the treatment modality is not free of complications and dental implants occasionally fail.

The chronic loosening or fracturing of implant screws continues to be a problem in restorative practices and generally are challenging to remove. This report describes and demonstrates the management and technique used for the removal of fractured screw fragments and the successful utilisation of the Er:YAG laser as an important auxiliary tool.

## \_Introduction—the problem

Success in implant-supported prosthetic replacement of teeth will be due to a combination of appropriate placement criteria (receptor site quality, implant stability, osseointegration), appropriate (non-excessive) loading and prevention of bacterial contamination.

The failure of dental implants is due not only to biological factors, such as unsuccessful osseointe-

gration or the development of peri-implantitis, but it may also result from technical complications.<sup>1,2</sup> Dental implant complications may be considered under the following main categories:

### \_Early

- Failure/inadequate surgical preparation
- Failure of osseointegration
- Peri-surgical infection

### \_Late

- Implant overloading, leading to bone loss
- Peri-implantitis
- Soft tissue complications
- Fracture of mechanical components and aesthetic/phonetic considerations

Failures of implant-supported restorations result from technical problems and can be divided into two groups: those relating to implant components, and those relating to the prosthesis.<sup>3,4,5,6,7,8,9,10,11</sup> Technical problems related to implant components include abutment screw fracture.<sup>8,12</sup>