

roots

magazine of *endodontology*

2²⁰¹²

| **event**

Clinical Innovations Conference 2012

| **user report**

Ultrasonic irrigation

| **research**

Root canal morphology

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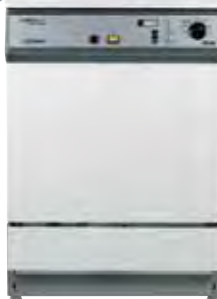
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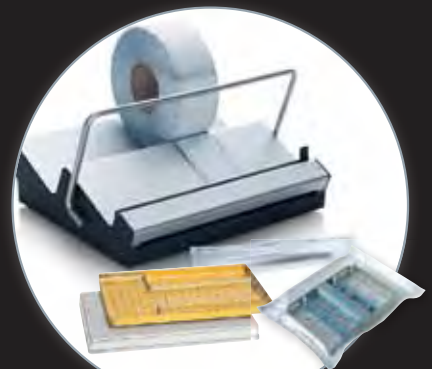
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Dear Reader,

_Welcome to the second issue of Roots for 2012.

It has been a busy time in dentistry lately. There have been many conferences and events to attend, not least of all the ninth Clinical Innovations Conference, held in London.

For Endodontists it was a real treat of an event, with much of the programme given over to world class speakers in all areas of endodontics. Of course, being Clinical Innovations, much was centred on technologies which can aid in root canal treatment. To find out more about the event, turn to pages 8–11.

In this issue we feature two user reports looking at ultrasonic irrigation. One is the investigation of the effects of power setting, type of irrigant and duration of ultrasonic irrigant agitation using a particular stainless steel instrument. Backing this up is a presentation of ultrasonic irrigation used in a retreatment case. You'll find these on pages 14–20

Here at Roots we would love to hear your feedback on the journal as well as your input into the content. Send us your comments (good and bad!), articles, case studies etc to lisa@dentaltribuneuk.com. I look forward to hearing from you

Until next time...

Lisa Townshend

Group Editor
Roots



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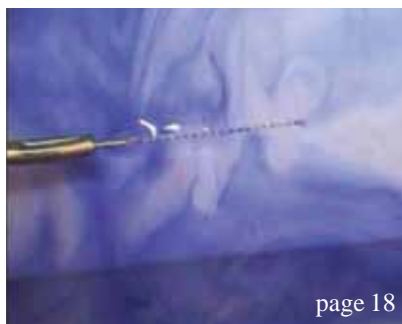
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Cycle Slam is huge success

_On St George's Day, former England rugby international and World Cup winner Lawrence Dallaglio and England cricketing legend Freddie Flintoff embarked on the cycle ride of their lives.

The Dallaglio Flintoff Cycle Slam 2012 (supported by Virgin Media) began at the ancient birthplace of the Olympic Games, Olympia in Greece, on 23rd April. The journey stretched over 22 days, and took them through Italy, across the Swiss Alps and through France, before reaching London on 18th May.

JHA's very own Dr Alyn Morgan, endodontist at U Dentistry in Ilkley, joined Freddie and Lawrence for the last of the five stages of the ride. He undertook this massive challenge in order to raise donations for three fantastic charities – the Dallaglio Foundation, the AF Foundation and Virgin Unite.

A huge congratulations to Alyn and everyone else who took part in this incredible achievement!

For more information about JHA' dental practices call 02920 772 930 or visit www.jameshull.co.uk



The Cycle Slam team

Dental practice offers award for young endodontists

The Harley Street Centre for Endodontics is launching the Young Dentist Endodontic Award 2012. Marking the 10th Anniversary of the Centre, the award is open to any young dentist who graduated in the last three years, whether they are in their Foundation Year or just starting out on their career. Applicants are invited to submit a case report of their best endodontic treatment so far. An application form can be downloaded from: www.roottreatmentuk.com.

In addition to the national recognition that the award will bring, there are five outstanding prizes to

help the top applicants develop their endodontic skills further. First prize is the new WaveOne Endodontic Motor, hand piece and accessories kit, from Dentsply UK and the second prize is a Morita Root ZX apex locator from Quality Endodontic Distributors(QED). Three further runners up will win a pair of endo-benders from SybronEndo.

The application process is simple – Dentists are asked to submit details of one endodontic case which showcases their ability. The deadline for applications is 2 September 2012.



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We  to create

From strength to strength – Clinical Innovations Conference 2012

Author_Dental Tribune UK



Fig.1



Fig.2

The Clinical Innovations Conference 2012 was a fantastic success, boasting world-class speakers, cutting edge topics and practical advice for the many dental professionals in attendance.

Held at the Millennium Gloucester Hotel in London, the event saw more than 400 delegates from across the country come together for the two-day event.

As befits one of the leading aesthetic and restorative conferences held in the UK, delegates were able to expand and develop their understanding of ideas and techniques with help from some of the top names in the field. For the first time, the event included a London Deanery DFT Conference, running alongside the Clinical Innovations Conference, providing more variety and attracting a number of additional practitioners.

The event began on the Friday, with the world-re-

nowned Nasser Barghi speaking on *'All-Ceramic and CAD/CAM Restorations in 2012: Clinical Steps'*, to a highly attentive audience.

After the coffee break the conference split into two streams; Dr Wyman Chan and Dr Anthony Roberts. Dr Chan gave a lecture on *'Modern Bleaching Techniques'*, focussing on bleaching techniques and the science behind the products he uses, as well as running a live demonstration.

Simultaneously, Anthony Roberts spoke about *'The Periodontal Jigsaw: Putting it all Together'*. Dr Roberts discussed BPE charting and the journey of diagnosis. He also explained the clinician's role as motivator, communicator and educator in addition to their clinical capacity for the best treatment for patients.

The afternoon continued the high standard of

Fig. 1_The exhibition

Fig. 2_Delegates had the chance to get their gladrags on at the gala dinner



Fig. 3_Dr Kahan during his presentation

speakers, with Richard Kahan giving an enthusiastic talk on *'New Horizons in Endodontic Diagnosis and Treatment Planning'*.

Richard's experience in endodontics provided an array of interesting and highly complex case studies to enhance his lecture.

Comparing the dental and medical industries, Richard highlighted the issue that dentistry has a far smaller range of tests to use when diagnosing a patient's complaint. In fact, the only truly objective test is an X-Ray. This is not however, a totally reliable tool, as its limitations can affect the results shown. If an X-Ray does not show a specific problem, that does not necessarily mean there is nothing wrong – if a lesion for example is limited to cancellous bone, an X-Ray will not show it at all.

In effect, an X-Ray gives a 'shadow' of the tooth structure, so a 2nd and 3rd dimension is needed for an accurate diagnosis. The Limited Volume Cone Beam Computed Tomography (CBCT) gives this, and allows for a reliable and immediate diagnosis; preventing the possibility of working on the wrong tooth and causing more problems than existed originally.

Richard went on to discuss how safe the radiation dose is to patients when using the CBCT, and the necessary risk analysis that should be taken when using it. The degree of possible exposure depends on the tissue type, the age of the patient, the size of the face and whether there is any existing crown or bridge work present. Richard explained how he had previously experimented with his own machine in an attempt to lower the radiation dosage while producing clear results. He found that the CBCT emitted an amount equal to background radiation, and that the difference in the degree of exposure was insignificant to the patients. Proving his point further, he showed some mortality statistics, showing that one in 15,000 people died from

effects of a head CT radiation exposure, opposed to only one in 1,000,000 associated with the CBCT.

Despite the essentially harmless amount of radiation patients are exposed to through a CBCT scan, Richard did express the importance of ensuring all patients and staff were educated in the possible risks. A CBCT machine is quick to produce reliable results, making the diagnosis easier for the professional and the patient.

Nasser Barghi, Mhari Coxon and Fraser McCord then separated the conference into three streams, speaking on *'Bonded All Ceramic Restorations in 2012'*, *'Effective Biofilm Management'* and *'Diagnosis of Complete Denture Problems'* respectively.

The first day concluded with Professor Gianluca Gambarini lecturing on *'3D Endodontics: Concepts and Techniques'*. Discussing the benefits of cone beam technology, he illustrated the importance of working with 3D images to diagnose patients' complaints.

In order to see 'the complete picture', Professor Gambarini expressed the need to take radiographs from different angles. CBCT (Cone Beam Computed Tomography) is especially designed for complex cases and gives an accurate and high-resolution image of the patient's mouth, including multiple root canals in teeth. This type of technology also enables the practitioner to switch between the bucco-lingual and mesio-distal view, greatly increasing the chances of finding any problem and therefore diagnosing and treating it correctly.

Professor Gambarini then looked at techniques to treat a variety of complicated endodontic problems. Using images from several previous case studies, he demonstrated some of the most commonly missed problems, showing that refined skills and techniques are essential. Accentuating the importance of using the correct instruments for the job, he spoke about the need to shape and clean the teeth thoroughly, to prevent difficult lesions forming in the future. According to Professor Gambarini, instruments should be highly flexible to allow for a more 'centred' and accurate preparation of difficult root canals, but resistant enough that they will not fracture or break when being used.

In most cases, the more simple the treatment, the lower the stress caused for both the practitioner and the patient. Professor Gambarini did, however, insist that simplicity should come after quality, particularly for complex endodontic cases. This enhances the need to create the most suitable