Dentistry in Greece: The impact of the economic and political crisis

How much do you trust autologous tooth transplantation?

Are provisional restorations always necessary?

Veneers and additional veneers: The implantologist’s little helpers

Behind the scenes at the EAO’s 2016 meeting
Master Clinician Course
New trends to simplify and optimise implant dentistry in complex cases with soft and hard tissue defects: a hands-on course with cadaver dissections

Professor Matteo Chiapasco and Doctor Pascal Valentini
11–12 March, 2016
Descartes University, Paris

Theoretical session:
- bone harvesting techniques
- guided bone regeneration (GBR) and reconstruction with bone blocks
- management of soft tissues to obtain tension-free flap closure

Practical session – hands-on course on fresh human cadavers:
- bone harvesting techniques with scrapers
- GBR procedures with biomaterials, bone chips, and membranes
- bone block modelling and fixation techniques

For more information, visit www.eao.org/master-clinician-courses
This edition of Inspyred provides a round-up of EAO news over the last six months, along with a look forward to the 2016 scientific meeting in Paris, and a selection of clinical articles which we hope you will find interesting and useful.

The EAO’s annual scientific meeting took place in Stockholm this year, and once again attracted a huge number of participants, who gathered to discuss and share the latest scientific and clinical developments in our field. The meeting celebrated 50 years of clinical osseointegration and was held in memory of Per-Ingvar Brånemark, whose work led to the birth of dental implant treatment. You can read about highlights from the meeting – including a summary of the winners of the EAO’s prestigious scientific prizes – on pages 14 and 15.

Planning an EAO meeting is a complex process that takes place over a long period of time. This issue also includes an insight into how the Scientific Committee plans such a large-scale meeting, and the work that has been going on behind the scenes for over a year to ensure that Paris 2016 will be a success. Stefano Gracis shares the process he has used to put together two exciting interactive sessions for the meeting. The EAO is continually working to develop the format of its scientific congress, creating more opportunities for delegates to actively participate, with a growing focus on take-home messages for day-to-day practice. Stefano’s article describes how this is being taken forward in practice.

The lead article looks how dentistry in Greece has been affected by the political and financial crisis that peaked during the summer. Two practitioners describe the impact that the turmoil has had on both private dentistry and those who practise in hospital settings. Although this has been a very difficult period for Greece, the authors report on the cooperative response the profession has taken to ensure that patients continue to receive the care they need.

We have selected three thought-provoking clinical articles for this edition, each covering different aspects of our field. The first looks at the role veneers can play in complementing and augmenting a treatment plan in which implant-supported restorations are the dominant element. The second article asks whether provisional restorations are always necessary when placing implants in the aesthetic zone. Finally, Martin Brient describes a case involving autologous tooth transplantation and invites you to take part in an online poll to share your views on its viability as a treatment option. Once you have completed the poll, you will be able to see how your colleagues have voted, and also view the treatment plan that was adopted for this case.

2016 is already shaping up to be a busy year for the EAO, with the launch of its ground-breaking new education programme (eao.org/education-programme) and a wide variety of other educational activities, including further Master Clinician Courses. You can stay up to date with all of these by visiting the EAO website.

As ever, we are keen to widen the scope of Inspyred and welcome proposals for papers from our readers. If you would like to submit an article, please email us at inspyred@eao.org.

We hope you enjoy this issue, and look forward to sharing more clinical articles and EAO news with you in the spring 2016 edition.

Isabella Rocchietta and David Nisand
In patients with missing anterior single tooth gaps which are scheduled for implant placement, challenging situations can frequently be encountered regarding the neighbouring teeth. These can include asymmetric tooth or gap sizes; triangular shaped clinical crowns; discoloured teeth; and fillings. These problems can jeopardise the aesthetic result, even if the implant treatment is of the highest standard. Minimally invasive or non-invasive prosthetic treatment of the neighbouring teeth using veneers can help to solve these problems.

The fabrication and handling of these very thin veneers requires great skill by both the dental technician and the dentist. Feldspathic ceramic is layered and sintered directly on to a special model. The insertion of the veneers with resin-based cements is also a delicate task – they may break at try-ins or cementation, since they only reach their stability once they are adhesively bonded to the underlying enamel.

Unfortunately, there is not yet any scientific evidence regarding the long-term results of these minimally invasive veneers. Possible complications could include ceramic fractures; discolourations; or loss of retention. However, clinical experience so far has been very promising.

**Case presentation**

A 25-year-old patient was referred to the clinic for replacement of a missing lateral incisor and general improvement of the aesthetic appearance of his anterior teeth (Fig. 1). A resin-bonded bridge had been inserted by the referring practitioner, replacing the missing right lateral incisor. The patient presented with a midline shift (2mm to the left), and a gap between the central incisors. After removal of the resin-bonded bridge, it became more evident that the gap for tooth 12 was too wide in comparison to the right lateral incisor (Fig. 2).

A direct mock-up from on a diagnostic wax up was tried in and discussed with the patient. Based on a CBCT scan and this simulation of the desired final outcome, digital implant planning was performed (Fig. 3) and a 3D-printed splint fabricated for guided implant placement (Fig. 4). After completion of the hygiene phase, an Astra Osseospeed implant with a 3.5mm diameter was placed in the prosthetically correct position, resulting in a major buccal osseous defect (Fig. 5 and 6). The defect was regenerated using demineralised bovine bone mineral (DBBM) and a non-resorbable ePTFE membrane (Fig. 7). Healing was uneventful (Fig. 8) and the membrane was removed after 6 months, revealing a nicely regenerated ridge (Fig. 9). Additionally, an autologous connective tissue graft harvested from the patient's palate was used for soft tissue augmentation of the site. Eight weeks after the soft tissue graft, abutment connection was performed. A temporary implant crown was inserted which allowed for conditioning of the peri-implant soft tissue by adding flowable composite to the temporary implant crown (Fig. 10). In order to correct the midline shift and improve the aesthetic appearance of the patient's smile, the placement of veneers was planned on the adjacent incisors. Furthermore, a non-prep additional veneer was planned to cover the colour defect of the right canine. A second prosthetic mock-up, based on the diagnostic wax-up, was presented to the patient revealing the amount of dental hard tissue that would need to be removed in order to realise the planned restorative treatment (Fig. 11).

In order to minimise the need for buccal preparation of the front teeth, and to correct the midline shift, the incisors were slightly moved palatally as well as to the right using a transparent splint. Subsequently, the central incisors and left lateral incisor were prepared for the veneers and the final impression was taken using retraction cords (Fig. 12). Following bisque bake try-ins, the final implant crown and the veneers were inserted using a resin-based cement (Fig. 13, 14 and 15). The screw-retained implant crown was fabricated with a directly veneered gold abutment. The patient was very happy with the final result (Fig. 16).

In this case, four anterior teeth were treated prosthetically, which led to a certain loss of tooth substance and considerable treatment costs. However, the patient’s wish for correction of the midline and improvement of the shape of the incisors could only be achieved with four veneers. The patient wears a night guard both for protection and retention of the maxillary anterior teeth.
Implants in the aesthetic zone

Are provisional restorations always necessary?

At the advent of modern implant dentistry as we have come to know it, screw-form endosseous implants were inserted into the mandible and used to support a mandibular fixed full arch prosthesis. The emphasis and focus of treatment was predominantly associated with patient function and wellbeing, with implant-supported restorations serving as an alternative to a mandibular complete denture. However, the fundamental difference that clinicians now face—which is in stark contrast to that of the early pioneers—is that of patient demands and expectations. It is no longer acceptable to provide patients with restorations that are simply functional. Indeed, over the last decade, there has been such a strong focus on achieving aesthetically pleasing outcomes, that scoring methods for both ‘white’ and ‘pink’ aesthetics have been developed against which to measure our clinical outcomes (1,2). With the aim of achieving aesthetic ‘perfection’, considerable emphasis has been placed on providing the patient with a provisional restoration as the first step in the restorative sequence. Understandably, many clinicians still believe that a provisional restoration is mandatory when restoring implants in the aesthetic zone. However, the evidence does not always support this as being advantageous in the long term (3). With a lack of clarity in the dental literature, this paper explores the concept of whether a strict adherence to treatment procedures and protocols is always necessary, or whether some flexibility may allow for more effective and appropriate patient management.

The evolution of implant placement in the aesthetic zone has led to the development of certain guidelines regarding the optimal position of the implant. These recommend that the collar of a bone level dental implant should be placed no closer than 1.5mm to an adjacent tooth and no closer than 3mm to an adjacent implant (4). These recommendations were based on the understanding that an area of bone saucerisation will develop around the collar of a bone-level implant in order to establish a ‘biologic width’ (5). By maintaining an appropriate distance from adjacent teeth and/or dental implants, there is a significantly reduced risk that bone saucerisation will result in the loss of all the interproximal bone peaks. It is also recommended that, during implant placement, the direction of the long axis of an implant should not extend further facially than the planned incisal edge of the proposed restoration. Ideally, it should emerge in the cingulum region of the tooth to allow for screw retention. In this way, the osteotomy preparation will carry a considerably lower risk of jeopardising any buccal bone that may be available. These recommendations are important because the literature has confirmed that the level and position of the underlying bone will ultimately determine the long-term resting position of the peri-implant soft tissue and the proximal papillae peaks (6,7). If the three-dimensional placement of a dental implant respects these clinical recommendations, when the implant is ultimately restored, it is relatively straightforward to fabricate a crown with a gently concave emergence profile, especially on the facial aspect. This in turn will result in considerably less apical pressure on to the soft tissues, which should contribute towards preventing recession. By controlling the apical location of the proximal contact points in relation to the carefully preserved proximal bone crests, the redevelopment of virtually all the lost proximal soft tissue peaks is highly likely. It is also well accepted that the ideal position of the head of the implant should be approximately 3mm apical to the planned gingival margin, supposedly to allow for adequate ‘biologic width’ at the level of the peri-implant mucosal cuff, but more credibly to allow for suitable vertical space to create a smooth, gentle emergence profile of the crown as it emerges from the mucosa.

Dr Kavit N Shah BDS, MFDS.RCS, M.Clin.Dent, MRD.RCS, Specialist in Prosthodontics

Having finished his undergraduate training at Guys’, King’s and St Thomas’ School of Dentistry, Kavit completed postgraduate training in Fixed and Removable Prosthodontics at the Eastman Dental Institute in London and is now a registered Specialist in Prosthodontics. Most of his clinical time is spent at The London Centre for Prosthodontics. He is also a Senior Clinical Teaching Fellow at The Eastman Dental Institute.

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Figure 1: Pre-operative view of a patient referred for replacement of tooth 11 with an implant supported crown. Extraction of the natural tooth was associated with loss of proximal soft tissue as a result of loss of proximal bone. Fortunately, this patient had low upper lip mobility. The benefit of using of a provisional restoration in this case is arguable.
Developments in implant design and implant-abutment connections including platform switching (8) and conical connections have claimed to reduce the extent of horizontal bone loss that was historically seen around the collar of an implant after it was uncovered. This has now led to a re-evaluation of the classical guidelines regarding implant placement. Recent data demonstrates that implants can be positioned significantly closer to adjacent teeth and/or implants, while still preserving the septal bone and therefore the proximal papillae (9). Of course, in the highest risk, most aesthetically demanding cases, such as patients who have very thin tissue biotypes and high upper lip mobility, it would seem prudent to revert back to those original recommendations. However, based on current evidence, should we still be providing provisional restorations for every patient who requires an implant restoration in the aesthetic zone?

It seems apparent that if an implant is inserted into the ideal position and the volume of bone and soft tissue is maximised at the time of surgery or thereafter, a favourable outcome with regards to ‘pink’ aesthetics of the soft tissues is highly likely to be expected, irrespective of whether or not a provisional restoration has been used. What then do we have to gain from using a provisional restoration in relatively straightforward cases involving single tooth replacement in the aesthetic zone? Indeed, it is now well accepted that over time the tissues will arrive at a favourable position as long as the support of the bone scaffold is available, irrespective of the technique and timing of implant placement (3,4). Should our time and efforts as clinicians not be better spent in a closer collaboration with our technicians to develop a mutual understanding regarding contours, emergence profiles and the optimal form of the planned restorations? Indeed, how often does a provisional crown fabricated by a skilled master technician who understands dental morphology actually need any adjustment when it is used to restore an optimally positioned implant? If we provide a skilled technician with the optimal implant position and bone support, do we really need to subject our patients to additional treatment stages? Moreover, are we actually doing a disservice to our perfectly crafted soft tissues, and possibly promoting additional soft tissue recession and crestal bone loss during the provisional phase? It is well accepted that a soft tissue mucosal response is optimal when exposed to ceramic materials, whereas acrylic or resin-based materials are more likely to elicit inflammatory reactions due to the porous and plaque-retentive nature of the material. There is also a body of evidence that has suggested that the more frequently components are removed and replaced from the implant head, the greater the chance of mucosal recession and bone remodelling occurring (10).

Figures 2 and 3: Optimal implant positioning in oro-facial, mesio-distal and apico-coronal dimensions will maximise the likelihood of achieving a predictable aesthetic outcome. Correctly positioned, prosthetically driven implant placement facilitates the fabrication of favourable contours for the definitive prosthesis. Coincidentally, loss of septal bone is now clearly visible and that accounts for the absence of proximal papillae seen in the pre-operative image in Figure 1.

Figures 4–6: A patient referred for remedial treatment to manage a poor aesthetic outcome following their original implant treatment. The implants have been positioned too far towards the facial aspect, with associated loss of buccal bone and subsequent soft tissue recession. The adverse effects of implant placement have been compounded by a poorly contoured cement-retained restoration with lack of proximal spaces preventing access for cleaning. In this case, little benefit would have been gained from using a provisional restoration, and sadly remedial treatment is likely to involve removal of the original implants and reinsertion of implants into the correct position.
As with most dental treatments, the use and application of provisional restorations is never totally transparent, and there are obviously occasions when they can prove to be invaluable. The current driving force with regards to implant dentistry in the aesthetic zone is primarily directed towards immediate implant placement following tooth extraction. If suitable primary stability has been achieved, it appears that immediate tooth replacement with a well-contoured provisional restoration gives the clinician the best chance of preserving the soft tissue architecture that surrounds the natural tooth. (11)

Provisional restorations are also an invaluable tool in the prosthodontic management of complex cases involving multiple units, and where planned changes to occlusal schemes and anterior guidance pathways are being proposed. Using provisional restorations, the clinician can incorporate a trial period during which the proposed changes can be tested to ensure that the patient will adapt well. In the most challenging of cases, involving the combined restoration of teeth and implants immediately adjacent to each other, provisional restorations allow for gingival tissue maturation around teeth following implant surgery and before the prosthetic.

Figures 7–8: Immediate implant placement following extraction of tooth 11 followed by immediate insertion of a screw retained provisional restoration

Figure 9: Final insertion of the definitive screw-retained porcelain-fused-to-metal crown to replace tooth 11, showing excellent soft tissue architecture and maintenance of all the soft tissue contours

Figures 10–12: Provisional screw-retained implant crowns were inserted on to implants to replace teeth 12 and 22. After a suitable period of use, open tray impression copings were customised with acrylic pattern resin in order to accurately replicate the emergence profile of the provisional restorations and support the soft tissues. Definitive restorations on the day of insertion demonstrate no significant soft tissue blanching or changes in the soft tissue contour, confirming accurate replication of the emergence profiles of the provisional restorations.
restoration margins for the definitive restorations are finalised. They also allow for more precise planning of gingival contours, especially as the emergence profiles of crowns on natural teeth and on dental implants differ so greatly. However, in every situation where a provisional restoration has been utilised, it is imperative that the clinician maximises the diagnostic yield that can be gained. This can be achieved by indexing the emergence profile and soft tissue profile created by the provisional restoration. A number of techniques have been illustrated in the literature, such as the use of customised impression copings and customised soft tissue profiling on the working cast.

Indeed, with the advent of more advanced techniques utilising computer aided design, it is now possible to optically impress the provisional restoration in situ and transpose this data on to a previously captured image of the fixture head, in order to more precisely copy the provisional restoration.

The decision as to whether or not we should be using provisional restorations in the aesthetic zone should therefore be guided by patient-centred decision-making and treatment planning, using the evidence available as a guide rather than to create rigid treatment protocols. Ultimately, our proposed outcomes should be patient-focused with the aim of meeting their, rather than our, expectations.

References


Figure 13: A well-contoured screw-retained definitive crown fabricated by a skilled technician is relatively straightforward to achieve when the implant has been inserted into the ideal position, and will result in a predictable final outcome.
**Inspyred poll:**

How much do you trust autologous tooth transplantation?

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**Introduction**

This is an interactive article. Please read the case description below, then visit [www.eao.org/poll](http://www.eao.org/poll) to vote for your preferred treatment option. You can read about how other people have responded to the poll by visiting the EAO’s Facebook and LinkedIn pages. Thanks for participating!

**Patient presentation**

The patient is a 25-year-old woman in good general health. She comes to the dental clinic with an aesthetic request. At the age of 4 she experienced a facial trauma with consequences for the root of tooth 21. That tooth was extracted at the age of 11 and autologous tooth transplantation was performed, with 35 as the donor tooth (rotated 90°), together with orthodontic treatment. Her concern is now the colour and shape of teeth 11, 21 and 22.

**Clinical examination**

- **tooth No. 11:** No symptoms. Positive response to cold test. Maladjusted composite filling. No sign of ankylosis
- **tooth No. 21:** No symptoms. Negative response to cold test. Severe dyschromia. Maladjusted direct composite veneer. No sign of ankylosis
- **tooth No. 22:** No symptoms. Negative response to cold test. Dyschromia. Maladjusted composite filling and caries recidivism. No sign of ankylosis

**Aesthetic analysis**

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<table>
<thead>
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<th>Tooth No.</th>
<th>W/L Ratio (%)</th>
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<tr>
<td>21</td>
<td>100 %</td>
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**Summary of problems**

- prognosis of teeth No. 21 & 22
- gingival aesthetic management
- tooth No. 21 shape management (cervical width)
- teeth No. 21 & 22 dyschromia management

**Now you have read the article, please respond to the poll!**

After responding to the poll, you will have access to the decision, implementation and follow up of this treatment. Go to [www.eao.org/poll](http://www.eao.org/poll) and select your responses to the following two questions:

**Question 1. Do you have confidence in autologous transplants?**

A. I believe that tooth auto-transplantation only works in theory. The data is OK but the consequences of a failure are too difficult to deal with. I would prefer to extract tooth No. 21 and treat this patient as I always do – using an implant in the aesthetic zone. The overall prognosis will be better in my opinion.

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**Figure 1: initial situation**

**Figures 2–5: X-rays**

Martin Brient had a variety of different jobs, including construction worker and bicycle mechanic, before receiving his dental degree from the University Paris-Descartes in 2003. He is currently a general dental practitioner in Paris.

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B. I’m aware of the scientific data around tooth auto-transplantation but I have some concerns about the treatment planning and the prognosis of that tooth after aesthetic treatment implementation. I would feel more comfortable extracting tooth No. 21 and using an implant. At least I know how to reach a decent aesthetic result that way.

C. I’m aware of the scientific data around tooth auto-transplantation. I know that the conservation of tooth No. 21 will require an aesthetic trade-off, but I also have some concerns about the aesthetic predictability of using an implant to replace that tooth. Better an egg today than a hen tomorrow …

D. I’m a dental ecologist. There is no way that I will extract a tooth which is neither fractured nor infected, no matter what the aesthetic result.

E. This treatment is way too complicated and time-consuming for me. My knowledge of tooth auto-transplantation is too low. I would rather refer this patient to my (former) best friend.

Question 2. What about your own experience?

In the past three years, how many autologous tooth transplants in the aesthetic zone have you had to manage (this includes any of the following: making a decision; implementation; follow-up; or complication management)?

A. 0
B. 1
C. 2 to 5
D. 6 to 10
E. More than 10
Practising dentistry in Greece: The impact of the economic and political crisis

During the last five years, Greece has been immersed in a complicated and very serious economic crisis. All Greek citizens have suffered significant changes in their quality of lives, especially at a professional level. In July 2015 this crisis reached its peak, with the country becoming dangerously close to bankruptcy. During this period banks were closed for two weeks and capital controls were implemented. There was a restriction on how much money citizens could withdraw from their bank accounts, set at the very low level of 60 Euros per day.

Practising dentistry in Greece has dramatically changed as a result, and the most dramatic effects were seen during the period from July to September 2015, when the aforementioned bank restrictions were implemented. In order to better understand the changes in the dental field that this situation has caused, one needs to review the effects of the crisis at various levels: that of the patients; lab technicians; dental material distributors; and finally dentists themselves. Also, a distinction needs to be drawn between the private dental system and the public health system (i.e. hospitals).

During the crisis, in private practice, patients were frequently uncomfortable spending money on elective treatment such as dental implants. In many cases this was because their salary had been dramatically reduced or they were unemployed. For other people, it was because they were feeling insecure about the future and didn’t want to spend their savings. This was a particularly pronounced response in the period from July to September.

Another important factor was that people who did have savings, but didn’t use electronic means for transferring money, could only access the daily cash limit of 60 Euros. This meant they had to postpone their treatment, whether they wanted to or not. One unusual phenomenon was observed, however: we saw a group of patients who wanted to ‘get rid’ of cash or were afraid of a ‘haircut’ to their savings held at the bank, and so decided to go ahead with high-end treatment, and pay for all the work up front. This was, however, a rare exception.

An additional obstacle that dentists had to overcome during the summer was requests from lab technicians to be paid in advanced or on the day they would deliver their work to the clinic. Technicians would typically demand this regardless of whether the patient had prepaid the dentist or not. This situation created frequent episodes of tension between dentists and patients, who were asked to pay in advance for the work. It is important to note that each country has a unique relationship between patients, dentists and payment practices. In some countries, prepaying for treatment might be commonplace. In Greece, however, especially during the crisis, dentists have been trying to help people to manage the cost of expensive treatments by allowing them to pay in installments and over longer periods of time. The bank restrictions created problems for the flow of money between patients, dentists and labs, because the daily limit was not enough to cover the cost of the bills.

Dentists also had to face another issue relating to the distributors of dental materials. Like the lab technicians, most of the companies supplying materials started asking to be paid at the time of delivery. Again, in Greece it had been very common for dentists to pay their bills in installments, particularly during the crisis. This flexibility was often withdrawn by distributors during the period of capital controls. No one knew how long the bank restrictions would last, and clinicians became anxious about the availability of products from distributors. Fortunately, no lack of materials was observed, and the situation has slowly returned to normal. As Greek dentists we must, at this point, acknowledge the significant efforts made by some companies ensure that relationships were maintained and everyone stayed calm. They thoughtfully sent out emails to dentists letting them know that they had sufficient stock to supply them with products for at least one month, and some refrained from changing their payment terms.

Understandably, the crisis and the situation that it led to had a series of negative effects on the dental profession. A lot of clinics saw a dramatic drop in the number of new patients. This led to a general drop in prices charged, as practices sought to remain competitive in a struggling market. As a result many dentists left the country and sought jobs abroad.

According to data from the Dental Association of Athens, Attica, 126 dentists closed their clinics and moved to work in other countries. Also, many dentists who were completing postgraduate programmes abroad (especially in Europe and the USA) chose to remain in those countries and work there, either in the private sector or in a university setting. As a result, Greece is missing an important proportion of capable doctors and scientists who have been trained using cutting-edge techniques and who would be a great addition to the local universities, and to our research base. Furthermore, banks have stopped giving loans to individuals, so it is hard for new dentists to start their own practices.

Despite all the problems our country is facing, the quality of dentistry in Greece still remains high. The faculty of staff who teach at our institutions and train our future dentists are largely responsible for this. They are highly trained and very capable. Companies are also making efforts in Greece to promote high-quality continuing education courses featuring local and international lecturers. In addition, all modern materials and devices are available on the market in Greece. On the other hand, what has not yet been incorporated into daily dental practice in many clinics...
CAD/CAM technology. This is due to the high cost of these machines, and the need to purchase expensive updates which pushes up their running costs. Despite all these challenging factors, there are still a proportion of clinics which have been able to maintain pre-crisis prices and also see an increase in the number of their patients.

It is also important to consider the impact the crisis has had on the public institutions that provide dental care. Hospitals experienced a dramatic increase in the number of patients presenting at emergency rooms with symptoms of acute dental pain, or even severe abscesses of the cervicofacial region. For instance, at the KAT Hospital (one of Athens’ largest general hospitals) the number of patients who were admitted to the Oral and Maxillofacial Surgery Department, and were diagnosed with serious odontogenic infections, rose sharply during the crisis. There was a direct correlation with untreated decayed teeth and periodontal disease, and the fact that patients were neglecting routine dental follow-ups.

Levels of appointments at outpatient clinics of Dental or OMFS departments at public hospitals also increased. Oddly, it seemed logical to many Greeks to undergo a tooth extraction rather than opt for a conservative treatment. This increase in patient numbers led to an exponential rise in costs, and therefore a further burden on the already overstretched public purse.

Both the public sector in general and the public healthcare system have suffered serious consequences as a result of the recession. Recruitment has been cut, leading to fewer staff; there have been cuts in funding; and many clinicians and scientists have moved to other countries. All of these factors have exacerbated long waiting lists and contributed to the inability of public hospitals to cope with rapidly increasing patient demands. Delayed or defaulted payments by the government to dental supply companies also resulted in a noticeable lack of crucial materials at hospitals and other public institutions.

We cannot conclude without mentioning that many dentists have made a valuable social contribution during this time of crisis. Patients have always been guaranteed emergency treatment and pain relief when they were in need. Social clinics were set up and continue to serve the emergency demands of the population.

We believe and hope that this situation will soon be over, and that the effects on our day-to-day practice will be reversed. We are anxious to see our profession and our country flourishing yet again.

Dr Christos Krasadakis graduated from the School of Dentistry, University of Athens, in 2006. Following that, he studied at the Medical School, University of Athens, and graduated in 2010. In 2011 he worked as a resident in General Surgery at Evangelistria Hospital of Tripoli, Arcadia, for a year. Since May 2012, he has been working as a doctor at the Maxillofacial Surgery Department of KAT General Hospital of Athens. Over the last few years he has been practising in the fields of oral surgery, facial aesthetics and facial injectables.

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Over 3,000 people attended the EAO’s 24th annual scientific meeting in September.

Over 2,300 delegates and more than 800 industry representatives met at the Stockholmsmässan in Stockholm between 24 and 26 September for the EAO’s 24th annual scientific meeting. The event celebrated 50 years of clinical osseointegration and included over 20 scientific sessions, along with short oral communication competitions focused on new research in implant dentistry. It was held in memory of Per-Ingvar Brånemark, whose work defined osseointegration and led to the birth of dental implant treatment.

The three-day meeting was packed with presentations and discussions on many topics surrounding oral implants and outcomes for patients. Three well-attended main sessions covered the early history of dental implants; the findings of the EAO’s 2015 Consensus Conference; and new research focusing on peri-implantitis. During three arena sessions and three parallel sessions, presenters spoke about how to improve the quality of dental implant treatment, discussing surgical alternatives, prosthetic alternatives and the health and social implications of implants for patients.

Several special sessions covered ‘Implants in the future’ and ‘Out of the box’ topics. The former focused on cutting-edge implant technology, while the latter provided opportunities to explore subjects that extended beyond the bounds of implant dentistry. As part of the ‘invited societies programme’, implant specialists from China showcased their work during a session on Saturday morning.

New research is central to the EAO’s annual scientific meeting. This year, 600 abstracts were submitted for presentation at the meeting, 527 of which were selected. 68 were shortlisted for a series of prestigious awards. Five delegates received EAO European Prizes for Research in Implant Dentistry, and seven practitioners were awarded the EAO’s Certificate in Implant-based Therapy.

The EAO would like to thank everyone who attended and to warmly invite you to the 25th annual scientific meeting, which will be held in Paris between 29 September and 1 October 2016.
Social highlights

Throughout the congress, delegates had the chance to visit some of Stockholm’s fantastic sights with the EAO. An opening cocktail reception was held in the ‘Blue Hall’ of Stockholm’s City Hall, which hosts the annual Nobel Prize banquet. On the second day, delegates enjoyed an unforgettable private tour of Stockholm’s historic Vasa Museum, followed by a three-course meal under the ancient ship’s stern and a concert by musicians including ABBA guitarist Janne Schaffer.

Winners of scientific prizes announced

On 26 September, EAO President Björn Klinge announced the winners of the EAO’s five prestigious European Prizes for Research in Implant Dentistry, who were chosen from over 500 abstracts. These were reviewed by members of the EAO Abstract Subcommittee, a group of 22 individuals who each have expertise in one of six key areas of implant therapy. The winners received a trophy and a €2,000 award.

Seven candidates were presented with the EAO’s Certificate in Implant-based Therapy during the ceremony. These certificates represent the only Europe-wide standardised assessment of skills and expertise within the field of implant-based therapy. Each candidate had to submit six clinical cases, sit a multiple choice examination and be interviewed about their cases. This year’s recipients were: Yoshiro Iida, Gang He, Firas Kiki, Wim Slot, Alessandro Carmignani, Damir Mukhamadiev and Erik Lennartsson.

As part of this special meeting dedicated to the memory of P-I Brånemark, Professor Daniel van Steenberghe, the EAO’s first president, received a medal and was awarded Honorary Membership of the EAO. Professor Jan Lindhe, a world-renowned periodontist, was awarded the EAO gold medal in recognition of his outstanding contribution to the field.

European Prize for Clinical Research, Prosthetically Oriented
Awarded to: Melissa Dierens. ‘Cost analysis related to aftercare of mandibular overdenture treatment on non-splinted implants in fully edentulous patients.’

European Prize for Clinical Research, Surgically Related
Awarded to: Andy Temmerman. ‘A prospective, non-randomized, controlled, multicentre study to evaluate the outcome of oral implants in women over 60 years of age with osteoporosis: 1-year results.’

European Prize for Basic Research in Implant Dentistry
Awarded to: Yeliz Cavusoglu. ‘Osseointegration of zirconia in the presence of multinucleated giant cells.’

European Prize for Clinical Research, Peri-implant Biology
Awarded to: 1. Gerdien Telleman. ‘Five year results of a RCT comparing the outcome of platform switching to non-platform-switching of 8.5mm implants in the posterior region.’

Poster Presentation Competition
Awarded to: Lukas Fürhauser. ‘Rating scores to judge the esthetic outcome of single-tooth implants: Methodological appraisal.’
Planning the EAO’s 2016 meeting:

David Nisand describes the process behind the scientific programme for Paris 2016

Organisation of an EAO meeting starts three years before the event takes place, when the decision is made about where to hold the meeting and the conference venue is booked. In some cities, like Paris, the available congress centres are typically booked five or more years in advance; luckily, an event was cancelled in 2016 allowing the EAO to organise its meeting there next year.

A few months after the location has been finalised, the EAO board appoint a chair and co-chair to organise the meeting. Typically, at least one of them is local. In this case, it will be a double pain with Franck Renouard and myself.

Among the first tasks to be undertaken following our appointment was to put together a scientific committee. This was based on a mix of youth and experience, and the committee is made up of: Isabella Rocchieta (UK); Irena Sailer (Switzerland); Friedrich Neukam and Henning Schliephacke (Germany); Stefano Gracis (Italy); Goran Urde (Sweden); Yataro Komiyama (Japan); and Jose Manuel Navarro (Spain). This scientific committee was approved by the EAO board in June 2014.

For the Paris congress, we have worked to deeply involve all members of the scientific committee both in the planning of the programme and in hands-on roles during the congress. When inviting them on behalf of the EAO, it was important that we clearly outlined the time and commitment they would need to dedicate to their participation.

During a first brainstorming session at the EAO congress in Rome, Franck and I considered all the topics that were suggested, and aimed to avoid any overlap with the congresses in Rome and Stockholm. Early on in the process, the decision was made that Paris 2016 should be oriented around decision-making and the global treatment plan.

As part of this first planning session, we were able to identify a number of potential topics and sessions. We assigned each of these to a member of the scientific committee, asking them to fine-tune the topic and plan their ‘dream session’ by drawing up an ideal list of speakers, a timeline for the session, and where possible some interactive elements to make the presentation as engaging as possible, and to enhance the learning outcomes. Simultaneously, we asked each of the committee members to chair their session and identify a suitable co-chair.

The members of the Scientific Committee met face-to-face as a group in Paris in January 2015. This provided an opportunity for everyone to briefly present their session, along with the speakers and the timeline they had in mind. The group discussion that followed was extremely beneficial in enabling refinements to be made to each session, while ensuring that the whole programme remained cohesive, with input and ownership from all members of the group. Immediately afterwards, each committee member finalised their session on the basis of the group discussion. This enabled a first draft of the scientific programme to be compiled, and a refined, final draft was presented to the EAO Board during their summer meeting in London in June 2015. Some changes were requested by the board before it was formally approved, with official invitations sent to the speakers in July.

During the EAO congress in Stockholm, a second meeting was organised to discuss the structure of each session, with a special emphasis on the interactivity. This included a strong focus on reducing the amount of time in which presentations feature just one speaker, with the emphasis instead on discussions between speakers.

Key features of the programme will include:

- two sessions involving a panel discussion on treatment planning. One of these will be chaired by Michael Cohen and will involve a clinical case involving extensive rehabilitation. This will be discussed by two teams of speakers: one from North America and one team from Europe. The second session will be chaired by Stefano Gracis and will involve clinical cases that requires ‘limited’ rehabilitation
- two sessions will discuss the decision-making process, one looking at the periodontally involved patient and the other focused on the aesthetic zone
- the Junior Committee will introduce a main session called the ‘Hourglass contest’, featuring speakers selected by the committee following an invitation to submit papers. More information on this will be available soon at www.eao.org
- there will be sessions on the digital revolution; management of prosthetic and surgical complications; bone biology; emerging technologies; things we stopped doing in our practice; and the ‘carpenter approach’ to implantology

As Paris 2016 approaches, there is still a lot to do to make sure that the congress will be a success from both a scientific and social point of view. However, plans are well underway now, and we are excited about the programme that will be presented in September 2016.

Keep up to date with the latest news about the EAO Paris 2016 meeting at www.eao-congress.com
Behind the scenes:
Designing interactive learning sessions for the 2016 EAO congress

Staging a major scientific event like the EAO Congress requires meticulous planning, and the process begins at least two years before the congress starts. One of the first tasks is the appointment of a Scientific Committee to develop and implement the scientific programme. This includes proposing an overall theme, and identifying a faculty of appropriately qualified and representative speakers. Doing this successfully means bringing together established experts with the next generation of emerging clinicians and researchers.

In 2014, I was appointed to the Scientific Committee for the EAO’s meeting in Paris, which will take place from 29 September to 1 October 2016. I was tasked with organising two interactive sessions for the meeting, focusing on treatment planning. The aim of this style of session is to provide a richer and more stimulating learning experience for delegates, where they participate in the outcome of the discussion and real-world clinical situations are assessed and evaluated in real time. This paper describes the methodology I and my colleagues on the Scientific Committee have used to put together two interactive sessions for the Paris meeting.

Mastering any clinical dental procedure requires the acquisition of manual skills through training and practice. But how does the dental professional learn how to formulate a proper treatment plan? There are a plethora of theoretical lectures and hands-on courses available on new techniques and the use of materials and instrumentation. However, teaching treatment planning is a complex endeavour that requires a completely different approach. The educator or educating team must have a broad and thorough preparation, and has to be ready to show the students a variety of well-documented clinical cases. These must exemplify the thought process behind the clinical decisions taken, combined with the long-term outcome, in order to demonstrate their reliability.

Developing the expertise to plan a therapy that takes all patient-specific variables into account requires a broad range of skills. These include a good dose of clinical experience, along with evidence-based information on the predictability of the different clinical procedures, and an understanding of their correct sequence. And this takes time, an honest engagement with one’s peers, and an open mind.

Part of my remit in organising the two treatment planning sessions for the 2016 congress was that they demonstrated clear learning value. This has to be set in the context of an international event that attracts thousands of colleagues who will be convening in a plenary session. The limitations include:

- a heterogeneity in the level of knowledge of the audience
- a limit to the extent that those attending can participate in the discussion
- a short time-frame

Reflecting this, I put forward two different formulas, each of which I believe offers important learning opportunities, but in different ways.

1. In one session, a complex clinical case will be presented and will then be discussed by two teams of three clinicians representing different specialties. The discussion will be guided by a moderator. Each team will receive in advance details of the initial patient presentation (clinical chart, radiographs, extraoral and intraoral photographs and any other pertinent information). Based on this information, they will prepare a formal presentation in which they explain their treatment proposal and its rationale. After the moderator has discussed the two proposals, the presenter will reveal the therapy that was actually performed.

2. The second session will focus on situations that are characterised by a limited clinical problem. Once again, a moderator will conduct the verbal exchange between the presenter and an expert panel, this time consisting of four different specialists: a periodontist, an oral surgeon/implantologist, an orthodontist and a prosthodontist. This time, the panel won’t see the clinical cases beforehand. So it will react to the presentation in real time along with the audience. The aim is to introduce an element of spontaneity which will bring the audience closer to the panel. After the case has been discussed, the presenter will reveal the treatment that was carried out.

These two styles of presentation have been developed to demonstrate the vastly different approaches needed when considering different cases. In scenario two, the clinical pathology or problem to be treated is limited (but not necessarily ‘simple’), whereas scenario one will examine a situation where the approach to the treatment of the patient must be comprehensive and may require a multidisciplinary strategy.

However, the selection of specific formulas for demonstrating how a treatment plan can or should be devised and discussed is only part of the requirement for a successful session. It is vital that participants learn something valuable and useful that they can apply in their practices. What is going to make the difference are the qualities – and not just the qualifications – of the people involved in the various roles on stage:

Stefano Gracis received his DMD degree in 1986 from the University of Pennsylvania, USA, and in 1987 from the University of Pavia, Italy. In 1990, under the guidance of Professor Ralph Yuodelis, he obtained the certificate in Prosthodontics with an MSD degree at the University of Washington, Seattle. He is President-Elect of the European Academy of Esthetic Dentistry (EAED) and Past President of the Italian Academy of Prosthetic Dentistry (AIOP). He is on the Editorial Board of the International Journal of Prosthodontics and of the International Journal of Esthetic Dentistry. He lectures and gives courses regularly, both nationally and internationally, on topics related to fixed prosthodontics and implant prosthodontics. He practices in his own clinic in Milan, Italy, limiting his activity to prosthodontics and restorative dentistry.
the presenter has to be a clinician of recognised skills, with a solid background and experience in discussing and defending treatment planning decisions. He or she must prepare an interesting clinical case that is well documented in all aspects, and that ideally has medium to long-term follow-up documentation.

the moderator is the key figure of the session. Like the conductor of an orchestra, he/she must be able to push the discussion in the right direction and understand when to call in the various characters. It is his/her role to extract the information that is interesting for the audience, and to summarise the major points that should be stressed. The moderator needs to be dynamic, understand the various disciplines involved, have a good handle on the relevant literature, and never forget the clinical value of the exercise.

like the presenter, the experts have to be recognised clinicians with hands-on experience in the treatment of a range of clinical situations within their specialty. They don’t have to demonstrate how good they are (the audience will assume or know this already), but instead they must describe the thought processes they use to make a clinical decision, and the importance of collecting certain clinical data.

I am confident that the dental professionals selected for these two sessions all fit the job description perfectly and that they will contribute to a constructive learning experience for all those attending. I am looking forward to seeing many of you in Paris.

**TREATMENT PLANNING SESSION 1** – Clinical case with a ‘complex’ problem or in need of an extensive rehabilitation

- Presenter: Dr Andrea Ricci (IT)
- Moderator: Dr Michael Cohen (USA)
- Team 1 (North America): Dr Sonia Leizy (CAN) (periodontist/implant surgeon), Dr Ward Smalley (USA) (orthodontist), and Dr Brahm Miller (CAN) (prosthodontist)
- Team 2 (Europe): Dr Rino Burkhardt (CH) (periodontist/implant surgeon), Marc Schaeetzl (CH) (orthodontist), and Joerg Strub (GER) (prosthodontist)

**TREATMENT PLANNING SESSION 2** – Cases with a ‘limited’ clinical problem, but that could still require a multidisciplinary approach

- Presenter: Professor Christoph Hämerle (CH)
- Moderator: Dr Ueli Grunder (CH)
- Expert panel: Dr Myron Nevins (USA) (periodontist); Dr Hannes Wächtel (GER) (implant surgeon); Dr David De Franco (IT) (orthodontist); Professor Petra Guess (GER) (prosthodontist)
Preview: Bone biology – where do we stand?

This presentation on bone biology, chaired by Professor Friedrich Neukam and Dr Franck Renouard, is one of a number of unmissable sessions scheduled for Paris 2016.

Why is it important to understand bone biology to achieve successful osseointegration and high success rates in dental implantology? Bone is a vascularised and dynamic tissue and therefore is optimally aligned to react to external influences. Osseointegration starts at the moment of implant insertion, and improvements to osseointegration have been made by development of modern implant surfaces. However, the high success rates of dental implants has led to their use in ever more challenging clinical situations. Peri-implant bone supports the overlying soft tissues, which cover the mostly rough surfaces of modern implants. Nonetheless, in clinical experience, peri-implant bone loss occurs after insertion of implants and may lead to exposure of the implant surfaces. In ‘Bone biology – where do we stand?’ we will provide an insight into cell biology and the immunogenic effects of dental implants. We will also present current knowledge on the bone-to-implant interface, along with the latest developments in osseointegration. Finally, we will discuss the causes of peri-implant bone loss. Don’t miss the session!