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EAO annual scientific meeting

Why the congress in Rome could be a starting point for reflection and reconsideration of the implant profession. Musings from Prof. Mauro Labanca, co-founder and vice-president of the Italian society for the study of orofacial pain.

»Page



Economic uncertainties

The European market for dental implants contracted through 2014, as uncertain economic conditions continued to reduce procedure volumes and as more low-cost competitors entered the market, driving down prices.

»Page



New products in focus

The 23rd Annual Scientific Meeting of the European Association of Osseointegration is an excellent opportunity to see state-of-the-art technologies in the field of dental implantology.

»Page 28

When in Rome: Eternal City welcomes implantology experts

More than 2,500 expected for annual scientific meeting of the European Association of Osseointegration

■ Oral rehabilitation with dental implants continues to increase and with every month, new treatment methods and tools become available. This is facing clinicians with the question what they should consider the right treatment protocol for their patients. One of the most important implantology meetings in Europe, the annual scientific conference of the European Association of Osseointegra-

tion (EAO) aims to keep professionals up-to-date with the latest knowledge and concepts in the field. Held at the Auditorium Parco Della Musica in Rome over the course of this week, this year's meeting has been announced to update professionals on a variety of topics such as protocols for full arch restorations, dilemmas in bone augmentation as well as practice management.

The programme will start off today with an afternoon session focusing on dental implant surgery. According to latest estimates of the EAO, approximately 2,500 professionals are expected to attend the three day event, which is being held for the 23rd time. While the number of expected visitors is most likely to remain steady compared to the last two editions in Denmark and Ire-

land, participation at the commercial exhibition has increased with over 90 companies and dental institutions to showcase their latest products and solutions this year. Among the innovations will be new implants, biomaterials and digital treatment solutions, with some of them to be available to European dentists for the first time. Visitors can learn more about these products during a number of corporatesponsored satellite symposia and hands-on workshops to take place during all three congress days.

As a first, there will also be parallel sessions in dedication to professional organisations of the host country Italy as well as special parallel guest country session on Friday, which is organised by the Korean Academy of Osseointegration in Seoul.

More information about the meeting, scientific sessions and industry exhibition is available on the EAO con-

gress website at www.eao-congress.com. The association also offers an application for mobile devices and tablet computers that is aimed at giving visitors quick access to congress-related information. Daily news updates, interviews and product reviews from the show floor are available on the Dental Tribune website at www.dental-tribune.com. The newsfeed can also be accessed by scanning the OR code below.



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Cochrane reports no evidence for superior long-term success of dental implants

Promising superior clinical outcomes, plenty of new dental implants are launched to markets each year. A report by researchers from the Cochrane Oral Health Group in Melbourne and Manchester has recently suggested that there may be no differences in terms of long-term success, regardless of the shape of the implant or the material used.

The researchers reviewed randomised clinic trials conducted around the world from the group's own database. From this, the only statistically significant difference observed was in relation to surface preparations, with smoother surfaces being found to be less prone to bone loss associated with periimplantitis than were rougher surfaces. Smoother surfaces, however, appeared to fail early more often, according to the analysis.

Similar results were reported by the group in a series of earlier reviews, of which the first was published in 2002. In the most recent update, two of the review authors independently compared 38 different implant types, which had been placed in 27 trials involving more than 1,500 patients, ranging from the early 1980s to early 2014. They said that, while their report provided no evidence that one specific type of implant proved superior in terms of long-term success to other types of implants with different characteristics, the results would have to be evaluated carefully owing to the low number of participants and short follow-up periods, which ranged from one to 10 years.

Overall, more than half of the reviewed trials proved to be at high risk of bias, they said.

"One well known weakness of such a meta-analysis of several small studies is that it cannot predict the results of a larger study," remarked Prof. Stefan Holst, Global Head of Research and Science at Nobel Biocare, one of the global market leaders in dental implantology, on the report's findings. "With 38 different implant types with highly diverse geometries, surfaces, prosthetic superstructures and clinical protocols applied-several of which are no longer in use—there are many variables. The meta-analysis dilutes any potential effect of a single relevant implant surface or implant characteristic in clinical practice today."

A representative of Straumann also cautioned against the results, saving that the review reflects the fact that there is very little or no published clinical data on the majority of commercially available dental implants, since they have not been clinically tested. He emphasised that of all the implants available today only 38 tested in randomised controlled clinical trials were considered worthy of re-

"With regard to our own implants, the review excluded studies that we and others feel are important. Furthermore, it did not consider the large body of bench tests and preclinical trials that demonstrate significant differences in some cases," the representative told today.

According to Cochrane, there are more than 1,300 different dental implants available on the market today. The total value of fixed tooth replacements was estimated to be US\$3.4 billion in 2011, a figure that some analysts expect to almost double in the next five years owing to the increasing demand of an ageing population and more dentists starting to place dental



Research on sandwich bone augmentation technique wins implantology award

For her research on the clinical efficacy of the sandwich bone augmentation technique, Dr Jia-Hui Fu from the National University of Singapore's Faculty of Dentistry has just been awarded the André Schröder Research Prize by the International Team of Technology (Booth B10) in Geneva in Switzerland. In her paper, published in the journal Clinical Oral Implants Research, she and a team of researchers were able to show that the technique provided predictable results in the regeneration of buccal bone on dental implants.

Fu was recognised for the first part of her study during which she was collecting clinical and radiographic parameters between 2009 and 2011 as part of an overseas scholarship at the University of Michigan in the US. Follow-up research, which has recently been submitted for review, according to Fu, will focus on the biological and structural phenotypes of the bone that has been regenerated via the technique. "We observed that implant design affected bone regeneration at the platform level and will explore the influence of implant macro- and micro-designs on the stability of regenerated bone in subsequent studies," she said.



^ Dr Jia-Hui Fu from the National University of Singapore's Faculty of Dentistry received the André Schröder Research Prize. (Photo courtesy of International Team of Technology)

First reported about a decade ago, sandwich bone augmentation utilises the different healing properties of particulate cancellous and cortical bone allocrafts. These are layered on the implant surface and protected by a bovine pericardium membrane, mimicking native human bone structure. The technique has demonstrated several advantages compared to the method of harvesting block grafts, such as reduced surgical trauma and treatment time.

International Team

for Implantology

Internationally-educated Fu, who is currently working as Associate Professor at the National University of Singapore, is the first dental professional from Singapore and the second from Asia to have won the prize, which has been awarded since 1992 to researchers who contributed significantly to the area of dental implantology and oral tissue regeneration, according to the ITI. Named after the organisation's founder, a Swiss professor and pioneer in fixed tooth replacements, it is endowed with the sum of CHF20,000 (US\$22,500).

In addition to its award, the ITI provides CHF2 million (US\$2.25 million) annually to research in both fields.◀



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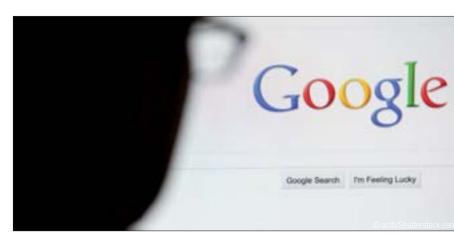




Search engines of little use for people seeking information on dental implants online

news

According to reports, an increasing number of people tend to look for health-related information on the Internet. In the field of dentistry, dental implants currently rank among the top three most searched topics after amalgam and aesthetic treatment. The findings of a Spanish study suggest that results



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for this search term provided by common search engines do not lead to either easily comprehensible or useful information for users.

From the 100 highest-ranked results listed for the search term "dental implants" by the two most popular search engines, Google Search and Yahoo! Search, in autumn 2013. the researchers from the University of Santiago de Compostela found that the overall majority scored low in accessibility and usability. The information provided on the remaining websites, which were evaluated by the group over the course of the study, was also seriously lacking in terms of both of these criteria. The results on the Yahoo search engine scored slightly higher in terms of relevance and usability in comparison with Google, according to the researchers. No significant difference could be detected between the two search engines' results in terms of accessibility however.

The poor outcome in terms of quality in even the highest-ranked results could be a reason that patients considering dental implants are misinformed about the device or have overly high expectations for the treatment, the researchers suggested. "E-health information on dental implants in the English language is difficult to read for the average patient and poor in terms of quality," they said in the report. "Therefore, it is necessary to generate websites that provide reliable, high-quality information about dental implants, with content that is both independent from commercial interest and easy to understand by the average patient."

According to a quick web search by Dental Tribune, Yahoo listed slightly over 1.7 million results for "dental implants" in early September, while Google listed around twice that number. With approximately one billion users a month, the market leader remains the most popular Englishspeaking search engine worldwide, followed by Yahoo, which is estimated to have 300 million users.

Overall, the study only included 32 websites, of which the majority were affiliated to non-profit organisations, or medical or dental institutions. Only five of these websites were listed among the results on both search engines. Websites hosted by companies, as well as forums or discussion groups, were not included, according to the researchers.

The study, which was recently published in the Clinical Oral Implants Research journal, was conducted by the OMEQUI research group at the University of Santiago de Compostela's School of Medicine and Dentistry. «







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EAO 2014, a starting point for reflection and reconsideration of the implant profession

By Prof. Mauro Labanca, Italy

When I first entered the field of implantology many years ago, I remember very well how extremely meticulously the procedure was approached. Back in the pioneer days, there was only one company operating in the field and it had a nearmonopoly on not only the implants but also the training of the few who worked in this discipline, which, although far older in origin, was at its beginning stages, to develop the scientific and practical framework that it required and warranted in those years.

My experience in the surgical field allowed me to understand very clearly the reasons for careful and scrupulous adherence to protocols, the adequate preparation of the operating room, and the necessary attention to sterility and to the

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management of a patient who was to undergo the implanting of a foreign body with the expectation that it could last for some time. At that time, all this was reserved for a few, who paid proper attention to treatment planning for the sake of their own patients and those referred to them by their colleagues. I have to admit that since then I have witnessed, with great perplexity and not less concern, a gradual softening of the procedure, which, although being practised by more clinicians nowadays, has experienced a dangerous decline in terms of rules, protocols, patient awareness and ethical guidelines that practitioners are supposed to follow. Similar to regenerative surgery, a simplification period followed the period of development and consolidation, which moved



implant therapy to within the reach of many more practitioners, thus liberating patients from having to undertake long and sometimes unnecessary journeys in hope of receiving treatment from a distinguished dentist many miles away.

Unfortunately, this rapid growth did not follow what, in my view, should have been the correct sequence in the evolution of the field. I will not discuss here the university courses, which are seldom adequate in providing regular dentists with the necessary surgical skills.

During my teaching activities on national and international levels, I fortunately have had the great pleasure of meeting many clinicians who possess the skills necessary to perform implant procedures. Far too often, however, have I also met those who do not give due attention to the discipline. In my course on anatomical surgery, now running for the 15th time, I am often and sadly reminded of the fact that many dentists not only lack basic





Prof. Mauro Labanca

Instead, let me consider who is truly able to practise implantology today. How many practitioners profess to be able to do so, without actually having obtained the required academic qualifications? How many have only undergone minimal training during a two-day course run by an implant company (the so-called weekenders' club)?

anatomical knowledge, but also are not aware of the fact that adequate anaesthesia is very much based on the knowledge of anatomical landmarks. To this can be added ignorance of the basic rules of surgery, as if making an incision and inserting an implant are trivial and risk-free acts. When I ask what is to be done in case of an arterial lesion, for

example, too often do I see trainees refer to superstitious gestures and signs instead of taking a Klemer.

It has become a tendency in Italy, unfortunately, to increasingly use cloned implants of dubious origin that often lack research and the little research that has been done has involved unwitting patients in what barely resembles a thorough study. Does it make sense to save perhaps €50 or €100 on a device that should have dignity similar to a prosthetic hip or femur, and is supposed to remain in the mouth for the rest of the patient's life? And this choice, alas, does not amount to any saving for the patient, who pays the same price, nonetheless, in order that the dentist might achieve a greater profit margin.

In recent years, owing to the heavy influence of private companies, another trend has been the trivialisation, almost popularisation, of implantology. It follows the argument that with new radiographic tools, software, system designs, surgical stents and practically anything else, anyone may call himself or herself an implantologist, despite having almost no expertise or experience in the surgical field, for example. Hence, dentists are providing new teeth in 24 hours with extreme immediate loading, and all-on-four at any price and under any conditions, with flapless surgery for everyone. Placing and loading the fixture and the consequences, however, are not given consideration. And what about the implant stability quotient, resonance frequency, stability and adequacy checks, prosthetic rehabilitation, the general health of the patient and his or her ability to cope with the operation, as well as prior assessment of how to handle possible failure to reduce damage or unwanted side-effects? Well, we can dismiss it all as nonsense and useless sophistry of some old pedantic solon like me or my other more mature colleagues.

The fact that this year Italy is hosting the prestigious annual meeting of the European Association for Osseointegration could be a starting point for reflection and reconsideration by anyone involved in the dissemination of high-level scientific information and who is a point of reference for the training of young people (in the vacuum left by institutions) or for the updating of the most experienced clinicians. Together, let us try to take a small step back, while still trying to bring the latest market developments to the attention of all. Let us not forget to assume the solemn responsibility and commitment to giving valid, practical and reliable guidelines. Let us be less prone to corporate dictates and commercial pressure, and more pragmatic in teaching others to distinguish true from false in order to show them what is concretely achievable by the new dental population compared with what is only a sort of miracle performed by the few super-experts, almost heroes. Let us be reminded of the fact that placing an implant is a surgical procedure performed on a living patient who has placed his or her own money on the line, as well as his or her most valuable assets: his or her personal health and trust.

A plethora of scientific and educational activities exists today that is too often only a showcase for some individuals not worthy of approaching a podium. Let us use this valuable tool for its rightful function as a means by which to share the expertise of those who are more experienced for the benefit of those who are not, as a way to share and learn from our mistakes, and to say what needs to be said even though it may appear to go against the current or appear to be taking a step back, applying that

old axiom that sometimes less is more. And, above all, let us make the patient the focus of our treatment plan again by leaving behind procedures not really required by our patients and that are only there to feed our pride or to bring another series of flattering slides to the screen.

What our patients only ever want and only ever need is a solution to their problem. They have placed their trust in us and we must, in good science and good faith, find a solution based on sound and proven scientific principles that are compatible with our real competences. We have to admit to ourselves that not everything that can be done should be done. With more humility and the correct training and expertise, we must restore scientific and cultural dignity to our profession, which we are currently in serious danger of losing at the expense of the many professionals who continue to believe in this profession and to practise it according to the best and

most realistic criteria of excellence.

Prof. Mauro Labanca is co-founder and vice-president of Società Italiana Studio Dolore Orofacciale (the Italian society for the study of orofacial pain). He also maintains a private practice in Milan in Italy. This Friday, he will be presenting a paper titled "Monitoring osseoin tegration: A dynamic biological process" at the Osstell industry symposium at the EAO congress in Rome. ◀

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The risk of extinction

Is continuing education of implant dentistry sending the wrong message?

By Drs Sebastian Saba & Michael Moscovitch



■ Over the past few years, it appears that there has been increase in continuing education. Many of the courses are about implant dentistry and the conventional courses that form the basis of learning the skills of saving teeth have been fewer in number. Obviously, everybody wants to learn how to surgically place a dental implant. It appears

programme that lacks any bias conclusions.

The whole marketing approach to implant dentistry has been to "oversimplify" the protocols so that anybody can place or restore a dental implant. These lectures appear to be purely mechanical with no prosthodontic considerations.

tion to "Cloned Implant Systems" or "Aftermarket Implant" companies of questionable origin, to infiltrate dental practices under the disguise of "Compatibility" without any scientific information. The systems with questionable origin, scientific documentation, and quality control may be one factor contributing to reduced success rates.

This approach seems to be contagious in the thinking of clinicians today. Many are concerned that dentists are not promoting the right approach to saving the integrity of the natural dentition. This attitude is so contagious that even some endodontists are learning to place dental implants. Is this not a clear conflict of interest?

information, and learn more from your time commitments to continuing education. The true "need" should be to go back to basics and learn how to save teeth first, so patients are able to keep the most natural dental implant of them all. ◀

"The removal of key aspects of dental training creates dentists who are not confident in diagnosing or rendering the necessary procedures to save teeth adequately."

that some apparent "need" of patients has driven clinicians to subscribe to these weekend courses in surgery so they can respond to these patient "needs." However, patients see their dentist regularly to save their teeth, not to have their teeth sacrificed for implant dentistry. Are we sending the wrong message here?

Originally all courses were provided by clinicians and researchers with a broad scientific support, justifying the concepts and designs for implant dentistry. Longitudinal and retrospective clinical data, scientifically based, were always presented to justify a design improvement, clinical protocol, or change in concepts like Submerged vs. Non Submerged Implants, for example. Lately, however, continuing education courses appear more sales oriented. Clinicians with biased viewpoints try to provide an objective view, but exhibit a clear conflict of interest, which generates doubt about their objectivity. Clinicians today therefore find it more challenging to select a continuing education

Gone are the lectures showing long term data substantiating implant protocols and design. The presence of this oversimplification of implant dentistry and lack of academic control of scientific documentation has the dental field overrun with over glorified concepts like "All on 4", "Immediate Placement and Loading With Teeth in a Day", and "Flapless Surgery" all used in marketing dental implants without any respect for the prior established scientific data. There is a need for long term clinical observations of dental protocols, materials, and surgical approaches. This provides key insight to diagnoses and treatment directions.

Is continuing education a facade for marketing? In the absence of consistent scientific protocols, are 95% success rates, as previously promised, seen regularly? If not, what is the problem here? The lack of academic oversight has allowed the corporate community to introduce new products, designs, and concepts under the scientific radar. This oversight has provided an open invita-

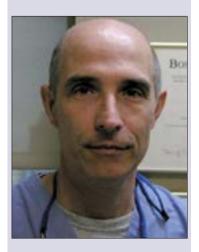
Once the courses are completed, most clinicians receive the golden label of approval, a dental certificate of completion that they can hang on their dental mantel at the office. On Monday morning, they become changed and charged individuals. They have been pre-programmed to now look at patients as potential implant patients. Their approach to dentistry has changed overnight. In the past, they spent four to five years in dental school learning most of the skills to save teeth. These skills involve different forms of dentistry, not limited to periodontics, operative dentistry, or endodontics. They spent countless hours understanding how to negotiate root surfaces in debridement, root canal curvatures in endodontics and multiple techniques in operative dentistry to save teeth. But overnight, all that has changed. Why spend so much time saving teeth, when you can remove them and place a dental implant at half the time? Is this really better for the patient? Why burden the patient with multiple periodontal procedures to save teeth when the alternaWhat is their motivation? Are we doing enough to teach dentists how to diagnose and prognose the ailing dentition? When does the ailing dentition become a failing dentition? When is it appropriate to choose implant dentistry over conventional, time-proven and predictable conventional dentistry?

The removal of key aspects of dental training creates dentists who are not confident in diagnosing or rendering the necessary procedures to save teeth adequately. Their clinical skills in recognising and managing ailing dentitions are limited. Their ability to recognise when and where dental implants may be used can be influencing their ability or motivation to save teeth. Are we not creating a situation where we may not be doing what's best for our patients??

The way to address this issue is to exercise more caution when approaching continuing education. Choose your lecturers carefully, expect more from these sources of



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