

# After 40 years, **DGZI** is in its prime

DGZI celebrates its anniversary with a top class congress

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**\_DGZI (German Association of Dental Implantology)** celebrated its 40<sup>th</sup> Annual International Congress on October 1<sup>st</sup> and 2<sup>nd</sup> in Berlin. With over 500 participants it attracted wide interest and met all ambitious expectations. Highly qualified speakers from practice and science gave an insight into the status of and future opportunities in this booming field of dentistry. Not only did we celebrate the anniversary of our association, but DGZI's efforts in promoting the standing implantology in dentistry were also celebrated, as the success of this field is due in great deal to the efforts of DGZI.

In his opening speech DGZI President Dr Friedrich Heinemann compared the associations development with human life: "In the beginning it was small with only seven founding members, then came the age of "puberty" with times of dramatic development, but now we are in our prime. We are established, respected and well equipped, and we deliberately assume the responsibility for our expert field." Many friendships with other associa-

tions have been established and developed over the years. Among others, Dr Heinemann underscored DGZI's excellent cooperation with the German Dental Medical Association (BZÄK), the Professional Association of Oral Surgeons e.V. (BDO), the German Association of Prosthodontics and Dental Materials (DGPro) and the German Association of Oral Implantology e.V. (DGI), which he calls "the little brother". "It is crucial to show common ground", said Dr Heinemann. "There have been many examples in the past where politics have succeeded in pitting one group against another, true to the motto 'divide et impera' (divide and rule)."

## **\_Together we are strong— globally interconnected**

The Board of Directors was particularly proud of DGZI's international reach. For example the entire Board of the Japanese Association AIAI was gathered in the auditorium. In his welcoming speech, BZÄK's President Dr Peter Engel expressed it so: "Implantology has mutated from a supposed ugly



duckling to a proud swan, and it is still gaining ground." DGZI has reached the proud number of over 4,000 members. On its 40<sup>th</sup> Annual Congress DGZI offered a program to suit diverse interests as well as its international participants. Science and practice and numerous different professional associations—this is the motivation which makes us reflect on how we can further develop implantology together. Just as Gauß once said, "It is not only the knowledge, but the learning, not the possessing, but the gaining, not the being, but the reaching, which gives the real enjoyment."

"The past was identified by respectful aloofness", characterized Prof Dr Hendrik Terheyden, but he went on: "As a young DGI President I am in the happy position to approach future cooperations in a much more unburdened way." Now that the conflict of interest between practitioners and scientists is obsolete, the question of which implantology association may claim one of the two fields for itself has also fallen away. According to Prof Terheyden, DGZI works together with qualified

university professors, and equally DGI has many practitioners among their members. "Does a competition between implantological associations make any sense? I leave this to anyone's guess," said Prof. Terheyden.

Dr Heineman thanked Prof Terheyden for his welcoming speech and "for the possibilities which result from it". Dr Heineman then moved on to a special feature of this congress. Though the Association generally agreed not to deliver tributes or present awards, an exception was made in celebration of its anniversary. The coveted DGZI Implant Dentistry Award was given to Dr Sönke Harder, Kiel, (3<sup>rd</sup> place), Prof Dr Thomas Gredes, Greifswald (2<sup>nd</sup> place), and Dr Stefanie Schwarz, Heidelberg (1<sup>st</sup> place) by Dr Roland Hille, DGZI Vice President and scientific chairman of the congress. The subject of the winning work was the "Immediate Loading of Implants".

One of the congress highlights was the short welcoming speech of Prof Dr Hans Grafelmann. Among other distinctions, he is an honorary doctor of the University of Istanbul and an associate professor in New York. But more than anything, it was he and six colleagues who founded DGZI on February 20<sup>th</sup>, 1970 in Bremen. "I still remember the Implantology Congress in 1969. There were 85 participants and two university professors who attended the congress. Today there are more than 500 participants and many university representatives. DGZI has a worldwide reputation for its reliable training programs", said Prof Grafelmann, considering the development of DGZI. In the name of his Prof Dr Grafelmann Foundation, Prof Grafelmann handed over a check of €20,000 to Dr Heinemann, which will serve as a basis for DGZI's future development. In his speech it became clear how close to his heart DGZI rests as he explained, "It was my life-work. I want to thank all of you."

*"40 years ago titanium was known as the material of submarines"*

Dr Hille had the opportunity to introduce one of his own academic mentors, Prof Dr Wilfried Schilli, Freiburg, who gave the first scientific speech of the conference. The subject of his speech was "Oral Implantology in 1970". Prof Schilli said, "Back then, we the dentists as well as the general population had to worry about so many things, and carrying out implantology was not a top priority. Titanium was known for being a material used in Soviet nuclear-powered submarines that rendered them invisible to radar. However, the problem was obvious, as shown in the following statistic. One quarter of the 40–50 year olds belonging to the Bosch company staff were already edentulous. Those patients suf-





ferred significantly, and we often could not help them satisfactory on a long term basis. The scientific consensus was that a bone transplanted to the alveolar process would melt like butter in the sun. Augmentation seemed to be nonsensical. The possibility of an implantation was kept under wraps, even in the specialist press. However, it was also the time when subperiosteal leaf- and/or pin-shaped implants, and enossal bone screws smoothed the way for implantology's subsequent success (for reference see studies made by Prof Grafelmann).

In comparison, Prof Dr Dr Frank Palm, Konstanz, summarized today's implantology status as follows: "Functional examination, possible augmentation, 3-D planning, and connective tissue transplants are routine implantological options used daily." In previous times the damaging of a nerve was not considered to be a crucial mistake, but today we are eager to avoid such damage. Simply dye it and make it visible in a three-dimensional image! Tissue regeneration has become much more certain, and long-term success really means long-term success, not just two years plus X. We also find solutions for more complex cases according to the patient's wishes. We still cannot completely avoid bone resorption after implantation, but it does not exceed the extent of common physiological resorption.

Prof Palm also spoke about a number of still-open questions: Immediate loading, periimplantitis therapy, unclear state of the art in case of reduced diameter implants. On the second day of the congress Prof Palm chaired a special panel of short presentations dedicated to "Minis, Shorties and others on trial". The speakers were Prof Dr Christoph Bourauel, Prof Dr Joachim Hermann (a "grandee" of implantology), DGPro chairman Prof Dr Michael Walter, Dr Dr Martin Bonsmann, and Prof Dr Dipl.-Ing. Ernst Jürgen Richter. Following this session there was a lively and at times even controversial discussion among the experts on the podium in response to questions from the audience, and a friendly but also pointed exchange of pros and cons was set forth. It became clear that many current is-

sues are still not resolved. Implantology remains a dynamic field, and there is still much left to be discovered, clinically examined and newly developed!

*"We should offer implantology in a much more self-confident manner"*

Overall, DGZI's 40<sup>th</sup> International Annual Congress provided an excellent overview of all relevant implantological topics under discussion today. Prof. Terheyden, Kassel, outlined aspects concerning the Le-Fort-I-osteotomy. In particular, he called on all dentists to show more self-confidence. Alveolar ridge atrophy is a disease which requires treatment and also essential financial support. If in doubt, even a three to four days hospital stay should also be incorporated—such a stay would never be called into question in the case of, for example, knee prosthesis, because it is common in other medical disciplines to inform patients in a much more aggressive manner.

Prof Dr Werner Götz, Bonn, explained the biological basics of osseointegration. "It is advantageous for a dentist carrying out an implantation that bone cells in the jaw are highly osteogenous. This is sometimes a reason to be envied by other medical disciplines." It is interesting that nowadays the old dogma of unloaded healing is of less importance. However, the implant-bone-interface, which enables deliberate healing, is not yet well understood. We know that osteoblasts prefer a medium rough implant surface. Osseointegration can be improved by blasting, etching or anodizing. In future, a completely different concept might come to the fore: a new periodontal apparatus could be constructed using a specially cultivated tissue.

Dr Stephen Wallace, USA, reported on the current possibilities of bone augmentation in the course of a sinus floor elevation, which are already applied overseas. He presented in particular the mushroom-shaped diamond-coated dental grinding instruments that are used for forming round and oval windows in the lateral walls. He also introduced artificially produced recombinant human growth factors



(rh-PDGF), which bind to bone substitutes, and BMPs (bone morphogenetic proteins) that improve the resorption of bone substitutes. However, at present, these materials are still very expensive (about €5,000 per treatment). At the moment these techniques do not improve long-term success, but they do help in achieving the desired result in less time.

### **The future: Interdisciplinary cooperation**

In his discussion of the "Closing the Interdisciplinary Gap", Prof Dr Paul-Georg Jost-Brinkmann, Berlin, discussed the possibility of preparing orthodontic treatment before carrying out implantation. He also highlighted the alternative solution of a transplantation of one's own teeth.

Prof Palm talked about the latest developments in the GBR technique. He specifically addressed the question of whether future augmentations may be superfluous, with a clear "no". Guided bone regeneration instead of classic bone augmentation may work in some cases, but not in general. In his speech titled "Is the Implant's Length of any Importance?" Dr Achim W. Schmidt, MSc, Munich, considered whether short implants are an alternative to direct sinus lifting. His conclusion is that short implants function successfully with sintered surfaces, which feature the necessary porousness. He proved this with the example of many cases from his own practice.

Prof Dr Matthias Kern, Kiel, began his discussion with an almost heretical example. He integrated a Maryland bridge into the region of the anterior teeth of a 15-year-old patient. After 19 years the bridge is still in situ, and the patient does not require any implant! Afterwards he pointed out the pros and cons of full ceramic abutments. Esthetics and bio compatibility are clearly advantageous, but missing long-term experience, higher costs, and the more complicated and thus critical treatment (adhesive fixation of the abutment on a titanium basis with Panavia 21) are of disadvantage.

Dr Peter Gehrke, Ludwigshafen, considers individually manufactured abutments to be very attractive. They can be produced centrally and on an industrial scale by applying new digital techniques. "For CAD/CAM generated zirconium oxide mountings there are no restrictions on how to shape the momentum to mesial and distal."

In his speech on "Implants and General Medicine", Prof Dr Thomas Weischer, Essen, indicated the limits of implantology in cases of severe or chronic disease, and he explained their current development. Today, even HIV patients can be treated with implants, provided that certain conditions are observed. The conclusion is that in most cases a dental implant restoration can be performed, even in cases of existing general diseases like HIV, osteoporosis, cancer or diabetes mellitus. It is highly important to keep in contact with the patient's practitioner, oncologist or other expert physicians.

At the end of the congress Dr Heinemann and Prof Palm took turns evaluating the various scientific contributions made, considering the aspects that are important to practice—information which is of practical value to the user in optimizing his own implantological work. The result of this analysis can be downloaded from DGZI's homepage [www.dgzi.de](http://www.dgzi.de) under "Scientific Review" along with additional literature for private review.

The scheduled podium program was complemented by a number of other events, including a pre-congress workshop on "Periodontology in Practice", workshops led by corporate sponsors, seminars, a symposium on "Digital Dental Technologies in Implant Prosthetics" for dental technicians, and a large dental exhibition housed directly in the venue itself, the Maritim Hotel.

The congress' participants could also enjoy a very special Friday evening event, which took place in the wonderful atmosphere of the Berlin Wasserwerk—after all, we had something very special to celebrate: 40 years of DGZI!