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Georg Isbaner

Editorial Manager



Ceramic implantology in times of a pandemic

Ceramic implantology has never been this multifaceted. The users are able to choose from a great repertoire of one- and two-piece implant systems by acknowledged vendors and manufacturers. Especially the two-piece implant systems promise great prosthetic variety and flexibility, otherwise only known from titanium systems. Multi-unit implant-supported works are now feasible for specific indications. Of course, all of that requires a high degree of education and training for the users to understand and master the advantages and limitations inherent in the system of the respective ceramic implant concept.

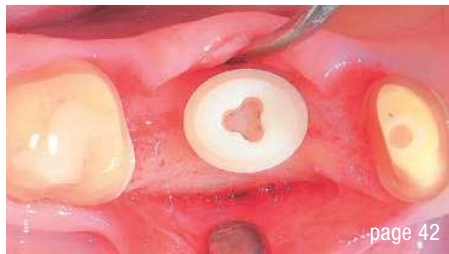
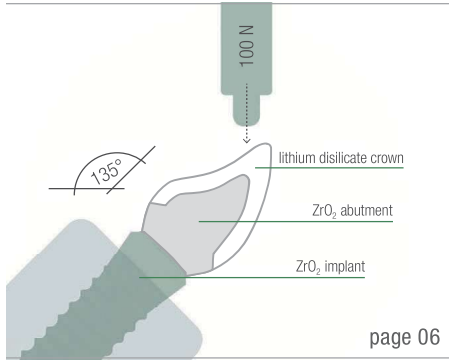
This leads me onto the main issue of this preface: the global pandemic caused by COVID-19. Under normal circumstances, numerous colleagues, experts and industry partners of ceramic implantology would have met at larger conventions in the upcoming days and weeks. They would have learned from each other, talked to each other, laughed and made plans for the future to ultimately better their abilities for the benefit of their patients. The new cooperations between expert associations would have been fleshed out. Unfortunately, all of that is currently not easily possible in the light of global restrictions on travel and larger gatherings. We fall back on phone calls, video chats, online tutorials and exten-

sively reading journals. In many countries, dental offices have grinded to a halt, with sometimes grievous economic consequences for owners, employees and patients. On top of that, scarcely any other profession is at a higher risk of being infected with the coronavirus as dental specialists and their assistants. Everyone is aware that the pandemic will change all areas of human coexistence. A, if not the prominent position is reserved for medicine and dentistry. The ramifications alone for patient management regarding hygiene measures and reducing the patients' and employees' risks of contagion will be a watershed.

It will be all the more important that dental specialists can offer their patients therapy options that are gentle and support the immune system. Our current knowledge about ceramic implants suggests that the material-specific properties exhibit good tolerability. So far, no adverse immune responses to zirconium dioxide are known.

On that note, I wish you an enlightening read and that you, your families and your fellow employees will weather this crisis well.

Sincerely yours, Georg Isbaner



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ISMI and IAOCI join forces

Drs Sammy Noubissi (US) and Karl Ulrich Volz (Switzerland) are two of the most experienced surgeons worldwide when it comes to modern one-piece and two-piece ceramic implants. In the past 20 years, the two combined have successfully placed several thousand ceramic implants. Moreover, they are the founding presidents of the first two international expert societies for ceramic implantology—the International Academy of Ceramic Implantology (IAOCI) and the International Society of Metal Free Implantology (ISMI). *Ceramic implants* had the opportunity to interview the two about future joint activities.

Editorial note: The ISMI initially planned to hold its 2020 annual congress in May in Berlin, for the first time in cooperation with the IAOCI. Owing to the current COVID-19 pandemic, however, the decision was made to postpone the event to 2021 and it is now set to take place on 7 and 8 May 2021 in Düsseldorf. For more information, contact the organiser at events@oemus-media.de.

Drs Noubissi and Volz, you two have been friends and colleagues for many years. Now, the IAOCI has also officially joined ISMI as an educational partner for its 2021 annual congress. What's the main reason behind you two joining forces?

Dr Volz: Sammy, whom I extremely respect as a great surgeon, ambitious teacher and very honest friend, is truly committed to pushing the paradigm shift regarding ceramic implants forward. He dedicates and commits himself entirely to his expert society, the IAOCI. Yet, ceramic implants represent only a small share of the entire dental implant market. It thus makes a lot of sense to join forces and to support each other in our activities and conferences. ISMI will be organising congresses in the German-speaking countries and in northern Europe, and the IAOCI will take care not only of the US but also of Latin America, Africa, Australia and possibly Asia.



Dr Noubissi: We have worked and supported each other as individuals but also as associations for the last ten years. The IAOCI from its creation had global ambitions, which we continue to work toward achieving. ISMI had the fortune of being founded and led by Ulrich, who is a man with a broad vision and a lot of perseverance. We are joining forces at this stage because a lot of the groundwork laid by ISMI and the IAOCI to educate our colleagues and the general public is now yielding positive results. I can confidently say that, had we not had the courage and temerity to push forward with our respective goals, ceramic implants would not have drawn the attention and interest we are seeing now. If you look at the ceramic implant market today, it constitutes no more than 2% of the global implant market, as manufacturers are just starting to understand that there is a demand and even a need for metal-free implants. Therefore, as the leaders in the field, we thought that it would be best to join forces to adequately educate the world on ceramic implants, because we believe that there is a need for a uniform and organised message. Academic institutions, researchers and the industry respond better to firmly established and well-organised groups. This is why we now offer ISMI and IAOCI members a dual membership programme and we aim at aligning our educational initiatives more strongly in the future on the basis of shared educational standards. Against this background, ISMI's Curriculum for Biological Dentistry is now also fully recognised by the IAOCI.



Dr Noubissi, you formed the IAOCI in 2011. What were the reasons for founding an academy that is solely dedicated to ceramic implants?

Dr Noubissi: When I introduced ceramic implants in my practice, I was one of ten or 15 dentists in the Americas who were placing ceramic implants. Even though I am a trained implantologist, the start was not easy because there were no firm guidelines, and documentation was scarce and was for the most part produced by manufacturers of the few systems available at the time. Ceramic implants, although they look like their counterparts, require a tremendous amount of attention to detail in all phases of treatment. Biology, physiology and immunology, to name just a few, are important factors to take into consideration if one wants to be successful with ceramic implants. Furthermore, research findings and unbiased literature were hard to come by. There was a big void for the early adopters, so we had to learn from one another and do so quickly, because the demand for metal-free implants was and continues to be mainly driven by patients, rather than dentists. The only way to meet these initial challenges was to organise ourselves.

Many clinicians would approach me and Ulrich asking for training courses and resources. These are some of the few reasons that played a great part in the creation of the IAOCI; we wanted to create an environment in which dentists could freely share with one another their experiences, but above all get proper training and knowledge about ceramic implants. We wanted to create an ecosystem in which clinicians, manufacturers and researchers could exchange, communicate and contribute to one another's growth. Seven years into the academy's existence, we created the Zirconia Implant Research Group, whose objective is to give some direction to the science, improvement and development of ceramic implants. ISMI has done the same: they—in some cases collaboratively with the IAOCI—are conducting important research projects across the globe in order to properly document and scientifically consolidate daily clinical facts long proven and accepted by early adopters and clinicians.



Dr Volz, founded in 2014, ISMI is the first expert society for ceramic implants in Europe. What is ISMI's approach to modern-day dentistry?

Dr Volz: Dental implantology actually started with ceramic implants, and Prof. Willi Schulte, the inventor of the first ceramic implants, wrote me a personal letter shortly before he passed away in which he said that, at the beginning, he received no approval to compare his ceramic implants with titanium implants because at that time the relevant ethics committee didn't expect them to be safe. Titanium intolerance is expected to be somewhere between 10 and 25%, and according to the 2006 European Consensus Conference, the rate of peri-implantitis is around 50%. This peri-implantitis tsunami has become one of the main topics at all mainstream implantology congresses. Even the U.S. Food and Drug Administration launched an investigation in November 2019 not only into amalgam but also into metal-containing implants. According to the latest studies, ceramic implants are at least as good as their titanium counterparts in terms of osseointegration, success rate, bone loss and overall stability. They even outperform them significantly in terms of soft-tissue reaction and aesthetics, and no intolerance or peri-implantitis occurs with them. Employing ceramic implants as an alternative in the daily practice has become a feasible option for many well-known surgeons all over the world, especially those with an affinity for biological dentistry, which I predict will become a new megatrend in dentistry in the future. Prof. Ghanaati also states that we dentists need to put an increasing focus on biology in dentistry. ISMI is an organisation which not only ad-

dresses ceramic implants as its main topic, but focuses on biology and immunology as well.

Comparing the situation of ceramic implants in the early days, when you started working with them, to today's ceramic implantology, what are the main differences? Are there any at all?

Dr Volz: Of course, there are! When I started placing my first ceramic implants back in 2000, I had only a few followers. Both the majority of dentists and the industry considered me a threat, and I was verbally attacked after all my lectures at orthodox forums. Only last year there was a great change, since all the big titanium companies launched their own ceramic implant systems. When I talked at the first ceramic congress of the renowned NEUE GRUPPE in Cologne, there was a clear consensus at the end of the event that identified ceramic as rightly comparable to titanium—and even better when it comes to aesthetics and soft-tissue reaction. At my lecture at the German Association of Dental Implantology (DGZI) conference one month later in Munich, I was well received and had the feeling of having advanced from being an outsider to being an insider.

Dr Noubissi: When I started placing ceramic implants, they were only available in one-piece configuration and their surfaces were either sandblasted or acid-etched. The options were limited. The last six years has seen a rapid evolution in both the manufacturing and design of zirconia implants. We now have two-piece implant systems with screw-retained abutments. We can now treat partially and completely edentulous patients. The success rates of ceramic implants are now on par with those of titanium implants. For me, the major change has been patient preparation and case planning. Ceramic implants, by virtue of the material, require healthy bone as a precondition for achieving good and consistent results. Healthy bone and healing can only be found in healthy patients, especially from a systemic point of view.

How have your peers reacted when introduced to the handling of ceramic implants for the first time?

Dr Volz: Most of them were quite critical at first, which is due to the deeply entrenched misunderstandings they adopted over the last decades regarding ceramic implants, but once they begin to understand that ceramic is different, much easier to handle and safer, they tend to become enthusiastic about ceramic implants and their biological approach. If you gave me just two hours, I would be able to convince any surgeon. The benefits are just so obvious.

Dr Noubissi: The most difficult obstacles for a clinician are first to get past the fact that implants made of ceramic can endure the rigours of the oral environment, second

to understand that it is a better and safer material to be implanted, and third to understand that, before he or she considers placing a ceramic implant, he or she should apprise himself or herself of the patient's general health. In my view, it is a transition a clinician must be willing to make because, although the actual placement of ceramic implants is the same as with titanium implants, they are most successful when planning includes the patient as a whole. Finally, once the implants have been placed and are ready to be restored, dentists almost always marvel at the health and quality of soft tissue around the implants. Then they realise that they are working with very special material.

Patients' happiness and their feedback play a crucial role in evaluating whether treatment has been successful or not. How have your patients reacted after being treated with ceramic implants?

Dr Volz: If you ask patients what kind of material they prefer to be used in their mouths, they will almost always go with the metal-free option. This is backed by a survey that was done by Straumann, which showed exactly this result. For one thing, patients feel better after being treated with non-metal solutions, owing to a positive effect on psychoneuroimmunology. In addition, by following the biological approach, patients mostly feel better overall. They show fewer holistic symptoms, and they have more energy in general. At our clinic, we are currently conducting a study to prove these changes by measuring various parameters before and after treatment: HRV is measured with a validated device, and eye vision, length of the telomeres and mitochondrial function are measured by means of validated programmes. Moreover, we administer a validated medical symptoms questionnaire. When comparing the photographs of patients' faces before and after their treatment, one can see that they look totally different. These results were presented for the first time at a joint meeting in Dallas in March where the top four biological dental and medical organisations have been working together. Actually, this event was the trigger to talk to the president of the IAOCI, Sammy, in order to join forces and make us stronger together.

Drs Volz and Noubissi, thank you for your time.

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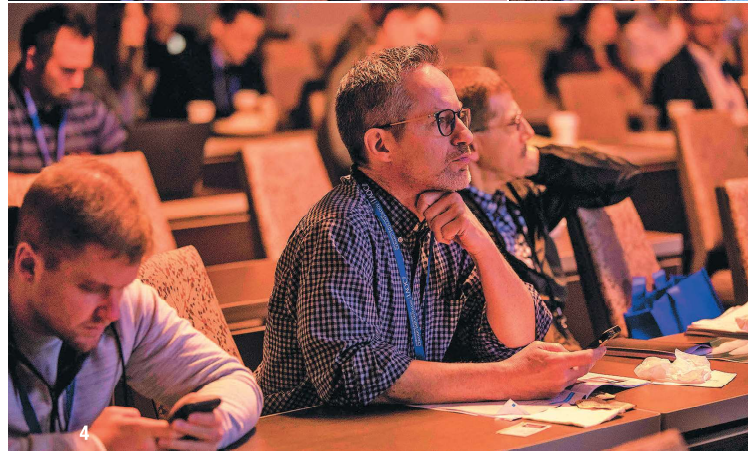
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March 12-14, 2020 • New Orleans, Louisiana

9th IAOCI WORLD CONGRESS

Ceramic Implants: A New Reality in Implantology



A look back at the 9th Annual Congress of the IAOCI

Dr Sammy Noubissi, USA

Under very challenging and difficult circumstances, the 9th Annual Congress of the International Academy of Ceramic Implantology (IAOCI) took place from 14 to 16 March in New Orleans, Louisiana, USA. This year the theme was "Ceramic Implants: A New Reality in Implantology". We were excited about being able to facilitate and provide a business-to-business networking component to this event where OEM ceramic manufacturers were matched; those who attended were able to come to agreements with future and prospective ceramic implants manufacturers and distributors.

Despite the difficult circumstances imposed on us by the COVID-19 pandemic, the event was a success as we reached our goal to provide a programme that was a good balance of scientific research and evidence as well as clinical experiences from our speakers and the workshop programmes. For the first time we introduced a poster competition, we received 26 entries of which 22 were accepted and 16 were presented. We unfortunately lost our largest single contributors from the Universities of Milan and University of Chiety-Pescara in Italy who were not able to travel for obvious reasons. Understandably our attendance was also affected by the pandemic but nevertheless we received attendees from across the United States, as far as Turkey, some countries from the Middle East and Africa. We are thankful to all the attendees, speakers, exhibitors and sponsors who despite the circumstances came from far and near to make this unique event a success during these challenging times.

As we look ahead to our 10th Anniversary in 2021, which is going to take place at the Paris Hotel in Las Vegas from 20 to 23 May, we have gathered an A-list of speakers and scientists to come and share their experiences with

us. For this event we will return with the poster presentation competition this time with two separate tracks: one clinical and the other for scientific research on implantology-related ceramics and bioceramics. Our objectives remain to continue to increase our ever-growing attendance and membership and continue to introduce a metal-free implantology in an organised and well-structured manner to the broader dental community.

In light of the confinement we have all had to observe around the globe, the IAOCI has been providing and will continue to host webinars on ceramic implant and implant related topics. The Academy's growth, exposure and visibility continues to rise. We have now created committees that eligible existing and new members can join and become active in order to enable the academy to pursue its vision and goals for the future. We invite you to visit our new website www.iaoci.com to see more information on our upcoming events and how you can be part of this organisation.

IAOCI

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Fig. 1: Dr Varo Boyer (USA) at the 9th IAOCI World Congress. **Fig. 2:** IAOCI President Dr Sammy Noubissi (USA) welcomed the attendees to the March event. **Fig. 3:** Dr Karl Ulrich Volz (Switzerland) hold a lecture titled "Ceramic is easier, but different." **Fig. 4:** With an attending audience from numerous different countries, the congress was a great success. **Fig. 5:** The event featured an industry exhibition from selected partners. **Fig. 6:** The scientific programme was delivered by internationally renowned speakers.