

Interview with Professor Carlo Maiorana, University of Milan, Italy

Science and practice of ceramic implants in one go

Ceramic implants are certainly one of the most discussed topics in implantology today. Now the first specialized societies have emerged and one of them, the EACim, is going to hold its second annual congress in Brussels on April 25. My To from the EDI Journal was able to talk to the congress president, Professor Carlo Maiorana, about the context and ambitions of this event. **Postponed April 17, 2021**

Professor Maiorana, do ceramic implants really need a specific association and dedicated education? Aren't they just another variation of the popular dental implants as we know them?

Ceramic implants are indeed near relatives of the conventional titanium implants but, as any other medical device, they require appropriate training. For instance, the specific insertion torque can be different from a titanium implant, or also some prosthetic and biomechanical properties. In medicine, many associations were created to deeply penetrate a specific field, in order to improve its predictability and sophistication. In that sense, associations dedicated to a limited area of a medical discipline should always be welcomed as a step towards improved clinical applications and more research.

Ceramic implants have long been associated with holistic concepts. Why should also the non-holistic clinicians be interested in them today?

Medical disciplines must not be regarded as isolated from one another. We have to be open-minded and share experiences with colleagues showing different perspectives. With regard to dental implants, we know that problems can be triggered by titanium alloy particles and ions in the tissues around the implant, due to corrosion and wear. This can lead to inflammations and ultimately even to poor osseointegration and failures.

Besides this, we should take into consideration complications due to hypersensitivity reactions. Ceramic implants can be an alternative in patients showing clinical reactions to metals.

Ceramic implants are often said to have thin scientific data and poorer mechanical properties than titanium implants. Is this still true at present?

The first ceramic material used for dental implants was aluminum oxide and showed a good osseointegration, but unfortunately the mechanical properties in the long term were disappointing. However, with the introduction of zirconia, the flexural strength and hardness of ceramic implants were dramatically improved. Furthermore, zirconia shows high biocompatibility and low plaque adhesion, with a BIC similar to titanium, as shown by *Sennerby* and *Depprich*. Today, however, we still have significantly fewer clinical studies on ceramic implants than on their titanium counterparts. This is due to the increased use of ceramic implants in recent years only, but many serious studies are now underway on the subject.

What are the focal points at the EACim congress: more the scientific aspects or rather the clinical level?

The speakers will treat both the clinical and research aspects of ceramic implants. We will see scientific literature reviews as well as the results of long-term

clinical observation. This event brings together some of the world's most experienced specialists in the field of ceramic implantology.

In the era of evidence-based medicine, what we do in our daily practice must be supported by the scientific literature. Nevertheless, especially in young disciplines, medicine must always take into account the practical experience of pioneering clinicians. And this is exactly what the 2nd EACim congress will offer: evaluate the past, examine the present and take a look into the future. ■



Professor Carlo Maiorana

