

The Ceramic Hype in Oral Implants

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Editorial

The patient of today is often times more concerned about aesthetics and being holistic rather than with masticatory function. Once the dental industry figures some new trend in the market opinion leaders will be called to start innovating treatments. Hence, to be whole with the Universe and to replace a missing tooth, the 21st century patient will want a ceramic implant. What do we know about it, and more importantly, is it worth our sleep to provide this kind of implant to our patient? Many implantologists didn't yet place any Zirconium Implant since many think this new approach lacks scientific studies being clinical reports, meta-analysis or longitudinal studies. Most of the papers available are focused on single-tooth replacements, however it's easy to find here and there clinical cases of multiple restorations of a more innovative colleague.

There's a saying: not everything is for nothing nor nothing is for everything. This is to say that one cannot use the same thing for everything but also cannot say that certain tool/technology has no utility.

Implants are mainly lost for two reasons: biological and mechanical complications.

Starting with the biological complications, periimplantitis, is there any difference? By common clinical sense one could expect distinct tissue behaviors between titanium and ceramic implants, right? Wrong! At least by the works of Fretwurst, et al. who say that no histologic differences were observed when comparing the two materials [1]. This can mean that

periimplantitis is more related with patient-specific immune status than with the implant used.

When it comes to osseointegration the studies of Chacun, et al. showed not only similar inflammatory tissue response but also same BIC values between the two types of implants [2]. Given this, it is safe to say that periimplantitis and osseointegration depend more on the patient himself than with the material of the implant placed.

The other reason implants may fail is due to mechanical complications. Ceramics can sustain compression forces quite effectively but not tensions which will cause chipping. This can give the clinician some fear of

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using ceramic implants in the posterior region. However, Cionca, et al. in a prospective study suggest ceramic implants can be used being the abutment fracture the more frequent complication [3].

So, if both systems produce so similar biological effects, why to choose one which is less studied? Aesthetics? Henao, et al. and his study group couldn't find any significant differences regarding aesthetics between ceramic and titanium implants [4].

For now, and until more studies are made, it can be concluded that there's not a reason good enough to risk and try a ceramic implant, even if the patient doesn't want metal in his mouth. Some new developments are needed as well in order for ceramic implants to replace the titanium ones as the main choice for implantologists. We must have to have a critical mind before embracing some new technology just because it's trendy.

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