The Editor's point of view: On the study on argon-plasma cleaning of customised abutments

I will briefly comment on the discussion which arose around the publication of Canullo et al (Eur J Oral Implantol 2013;6:251–260), in which customised abutments were randomly cleaned either with steam for 5 seconds or with argon-plasma for 12 minutes before its clinical use in humans for 2 years.

In the previous issue of EJOI we publish a letter on the matter by Professor Kern, and Dr Canullo's group decided not to write a response to Professor Kern's comments. I also encouraged an editorial on the same topic by Dr Bjorn-Owe Aronsson, who defended his PhD on argon-plasma cleaning and given that he is experienced in regulatory matters in implantology, was able to provide an independent view on the issue.

With the present paper I wish to briefly explain my way of making decisions on matters like this.

When I receive a manuscript of a clinical trial, I will first concentrate on whether it is presented with sufficient clarity for the readers to understand the methods used and whether the study is conducted according to an acceptable scientific methodology, in order to determine whether the results are considered valid and reliable.

When I received the Canullo manuscript I thought that the information contained in this study could be of great use for the dental community and patients, so I decided to publish it after an extensive revision. In cases such as this, where I need extra assurance about the results, I ask for the original data and radiographs, in order to check it myself, as I did so with this manuscript. Sometimes I also ask for evidence with regard to the ethical approval (which in this case I did not receive), however I can decide to publish, also in the absence of proof of a formal ethical approval, in cases in which the non-publication of the results could potentially harm future patients. In other words, if there is proof that one procedure is potentially less effective than another, I feel I have the moral obligation to make this information public to help dentists and patients in taking informed decisions.

The fact that I decide to publish an article does not necessarily mean that I share the same views with the authors on the study design and methods. In the study of Canullo et al, a method was used to clean customised abutments which is known not to work (5 seconds of steam) and another unconventional method of cleaning based on argon-plasma for 12 minutes (which does work!). Usually the 'gold standard' control method should be used in clinical trials, which in this case would have been cleaning in an ultrasonic bath and moist heat sterilisation (autoclaving) to clean and sterilise customised abutments, equipment that all dentists should have access to in their practice. The decision of the authors to compare a method known not to work (though actually surprisingly widely used) with an unconventional method known to work, and not with the conventional method which should have been used, can be acceptable but is somewhat strange.

To conclude, please do clean and sterilise your customised abutments as it is required by law and it is clearly written in the *Instructions For Use* by the abutment manufacturers. If to do so you have to buy an argon-plasma cleaner, this is a whole other story, also considering that it is not a validated or approved method of sterilisation yet. Furthermore always remember to keep neurons switched on as it definitively helps.

Enjoy your reading,
Marco