



## Is new necessarily better than old? ... and the story of the chameleon that behaved like an ostrich



Over the last decades implant dentistry has been characterised by increasingly aggressive marketing. New implants, surface modifications, designs, materials, connections, abutments, and so on – always promising fantastic clinical improvements – bombard clinicians (and in some countries even patients) daily. Even the most traditional implantologists at a certain point in their careers are tempted to change their reliable and favourite implant system for a more modern and advanced one. Sometimes they do not want to but are forced to because suddenly the reliable system that has provided more than a decade of satisfactory service is no longer on the market. It has been replaced by a fantastic innovative version.

How many times have we been invited to the launch of a new, revolutionary implant system? One revolution follows another... but are all these revolutions true improvements, or is it just marketing propaganda? Since the beginning of modern implant dentistry I have been personally involved in the implementation and evaluation of new ideas, yet how many of these revolutionary ideas have proven to actually improve clinical outcomes? Are we really sure that an internal conical connection is better than an external hexagon connection? That a

zirconia implant or abutment is as good as and less toxic than a titanium grade 5 implant or abutment? That a porous implant surface or a lasered abutment is as safe as a machined one? That guided surgery is essential to achieve more predictable and successful outcomes? That platform switching maintains peri-implant marginal bone better than non-platform switching abutments?

For more than 20 years I have conducted and evaluated many trials in many systematic reviews with the aim of understanding which innovations may bring clear clinical benefits to our patients. But I must admit that very seldom (and I am trying now to be diplomatic) have such benefits been obvious. Now it appears that many of the innovations are no better than the older systems, and show similar clinical outcomes. If the new is as good as the old it is not a problem; the real problem is when the old is better than the new.

In this issue you will find a typical scenario of what can happen when the new is not as good as the old. I was asked by an implant manufacturer to run a multicentre randomised controlled trial in Italy (where it is much cheaper to do than in the US) to evaluate their new 'biomimetic' implant system, which may

have possibly been able to improve success rates and better camouflage itself with the peri-implant soft tissues, like a chameleon. Their old implant system was used as control. The implant manufacturer selected the centres and, as in too many multicentre trials, it took much longer than expected to enrol the patients. The original calculated sample size could therefore not be achieved, since only six of the 19 adhering centres maintained sufficient enthusiasm to deliver the 4-month post-loading data. In this simple split-mouth study on single implants, no differences between the two implant systems could be detected. This may be normal when the sample size is insufficient; however, 8% of the new implants failed versus none of the old ones. After the manufacturer had received the data to check and to comment on, no answer was received. They acted like an ostrich when it is in an uncomfortable situation, which is to bury its head in the sand. They did not honour the financial agreement, despite all the obvious documentation as evidence, pretending that no research had ever taken place. When an official request for clarification was made, their lawyer answered that they were unaware of any research project with me. To tell the full story, another little bird confessed to me that they had run another study in the US, which bore similar unexciting results. The only difference was that the financial agreements with the US researchers were honoured. This leads to another interesting observation: the Italian representatives of the 'ostrich' manufacturer considered the US legal system more risky to challenge than the Italian one. This may be true, but I am fascinated to know how the story will end. We shall

have an evidence-based answer about this in years to come.

Please, try to understand my point of view. I am not against innovation. I love innovation; we need innovation; innovation is essential. What I am against is involution labelled as innovation. So then, what do we need? Less marketing propaganda, more serious clinical research, and many more critical brains. If at the same time we also achieve some real innovation, so much the better.

Finally, some very simple and practical advice for the conscientious implant user: If you are happy with your implant system and have been working with it for many years, and you have actually followed up your patients and are reasonably happy with the clinical outcomes, please think twice before leaving the old known way for the new unknown one. There must be a reason to change. I mean a sensible reason; otherwise you will inadvertently become a clinical investigator. If the new turns out to be better than the old, you will be happy; but if it turns out to be worse, you will regret your decision. And you will not solve anything by acting like an ostrich. The decision is yours, of course, and unfortunately nobody knows which is the right way until reliable clinical research is conducted. So please, carefully read whatever reliable clinical research is published to try to help you make better-informed decisions.

Happy reading,  
Marco Esposito  
Editor-in-Chief

