

A nuanced perspective on periimplantitis

Source: Nobel Biocare, Interview by Dr Stefan Holst, Switzerland

Fig. 1: Professor Tomas Albrektsson:
 "The frequency of periimplantitis has been grossly exaggerated in the literature. All bone loss that happens in the first year is definitely not periimplantitis."



One of the most widely quoted scientists in dental implantology, Professor Tomas Albrektsson, worries that periimplantitis is increasingly used as an alarming label for benign marginal bone loss around implants. On a recent visit to Zurich, Switzerland, he took questions from Dr Stefan Holst, Nobel Biocare's Vice President of Implant Systems and Research, on this topic.

According to some wide-spread yet crude definitions, periimplantitis can be characterised by a periimplant bone loss of as little as 1.0 mm in the first year after initial treatment. Since some post-treatment bone loss is all but inevitable during initial bone remodelling in even the most successful and long-lasting cases, such definitions lead, as a matter of course, to controversy.

Dr Stefan Holst: Periimplantitis is currently a prominent discussion topic at various events and

congresses. Is the nature of these discussions beneficial for the implantology community or could it be a threat to our reputation?

Prof. Albrektsson: When incorrect biological reasoning is done, it is always a threat. When we look at the clinical outcomes in long-term studies, they are so much better than many of those that we are hearing and reading about. I'm very critical of this. It is trying to make problems of things that may not be that problematic.

The frequency of periimplantitis has been grossly exaggerated in the literature. All bone loss that happens in the first year is definitely not periimplantitis. We see bone remodelling and bone loss for very different reasons. This bone loss is benign in that it doesn't threaten the implant.

Then we have a disease called periimplantitis which, with controlled implants placed by properly trained individuals, is a rare disease, but still one of some magnitude. With 1–2% of modern controlled implants showing clear signs of disease at ten years or more of follow-up, we can't ignore it. But we are not helped by the exaggeration of the figures. There are 13 different definitions available for periimplantitis. And we can be without the great majority of those.

“We see bone remodelling and bone loss for very different reasons.”

Holst: How does a clinician determine whether bone loss is a natural physiological reaction or that caused by disease?

Albrektsson: From the clinician's standpoint, we should take all types of marginal bone loss seriously—even if the great majority of implants with some bone

loss will never develop periimplantitis. The problem is that we don't know which ones.

For example, one reason for problems with bone loss is cement remnants in the soft tissue. If you remove that in time, the bone loss stops. The implant can function happily ever after, without any problems. But there is also the possibility that if you leave the cement remnants in place for 10, 15 or 20 years, then periimplantitis may follow with the same implant.

A clinician should always take action when he or she sees marginal bone loss or rather the preface of it, which is called mucositis. Mucositis is only the first sign of an immunological reaction; it has nothing to do with anything else but immunology, which is unfortunately not understood by many of our clinical colleagues.

Holst: Recent studies based on the Swedish population imply that implant brand plays a role in periimplantitis. Is this not misleading given that so many factors influence treatment outcomes?

Albrektsson: Many of the figures that are being quoted, be that in the recent Swedish publication or others, are lamentably unrealistic. They have used the most liberal definitions they can find of what they call a disease when in reality it is no such thing.

Our own studies of long-term follow-up on implants demonstrate very clearly a similar, small percentage of implants that are hit by periimplantitis, they are between 1 and 2%, whether you prefer one of the major implant systems or the other, is no difference.

But implant systems that say they are similar to other documented implants, and therefore need no documentation of their own, are not to be trusted. Clinicians need to pick an implant system that has its own documentation published in peer-reviewed papers. If that doesn't exist, don't buy it. Never forget that buying a cheap implant that is undocumented can prove to be very expensive.

Holst: Based on your clinical experience, what are the factors that play a role?

Albrektsson: It is complications to treatment that cause bone loss. We call it the "Triad of Poor." First, poor implant systems. As mentioned, these exist and are sold at a cheap price. Again, you should avoid these implant systems.

Second is poor clinical handling by clinicians without the right skills. Finally there is what we can term poor patients—those patients that are difficult to treat. These are the causes of bone loss, that in rare, but in some cases, may in the long-term lead to periimplantitis, but in most cases not.



Fig. 2



Fig. 3

Holst: So what can we, as dental implant professionals, do to prevent the proliferation of misinformation about periimplantitis?

Albrektsson: I'm increasingly irritated with people calling benign bone loss a disease. Those who are doing so have to read the new research that's out and realise they are wrong.

And the profession must, in a united manner, protest against alarming reports in a much stronger manner than we have done to date. But at the same time we must of course continue to take patients very seriously. We cannot ignore bone loss, even if it proves to be benign. We have to be active all the time and work to the best of our knowledge for our patients.

More to explore! For more to read about this and related topics—such as findings about screw vs. cement retention—please visit: nobelbiocare.com/news.

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Fig. 2: Stick with the original.

"Implant systems that say they are similar to other documented implants, and therefore need no documentation of their own, are not to be trusted."

Fig. 3: Dr Holst: "What can we do to prevent the proliferation of misinformation about periimplantitis?"

Prof. Albrektsson: "We must protest against alarming reports in a much stronger manner than we have done to date."