Treatment options for peri-implantitis
A look at options for peri-implantitis therapy

The idea of creating a prosthetic dental implant to replace a missing tooth is certainly not a new one – in fact, there is evidence of early civilisations using dental implants as far back as 4,000 years ago, when the Chinese fashioned pegs out of precious metals. Millions of dental implants are placed every year on partially and fully edentulous patients – most of which achieve long-term success and do not develop complications.

But, this is not true of all dental implants: the oral disease peri-implantitis, caused by bacterial infection and tissue inflammation around the implant site, is now known to affect a huge number of patients – although its prevalence is hard to define as studies quote varying figures. However, peri-implantitis is thought to affect approximately one out of every 10 implants placed. The oral disease is therefore shaping up to become a major concern for both patients and dentists involved in implant treatment in the future. New implants that promise better osseointegration may have an effect on whether peri-implant diseases develop, but the results would need to be studied in the future.

Booming business
The number of dental implant purchases is on the increase, with approximately five million being sold annually. It is a very popular treatment option for people in Asia, as well as the Middle East, in particular, Israel – and has been rising in popularity the world over since the modern implant was introduced in the 1970s. Some dentists now believe that we are placing too many implants – opting for the invasive treatment because the patient requests it, or simply expects it and is unaware that there are other non-invasive solutions available that don’t run the risk of infection. Cases demonstrating biological complications such as peri-implantitis and the less serious peri-implant mucositis, which is often the precursor to peri-implantitis, look set to increase in number in coming years, as studies have shown that occurrence of peri-implantitis increases with the number of years that the implant has been in place.

Awareness among dentists about peri-implantitis is growing and most are aware that it is no longer rare – although knowledge of the aetiology of peri-implant diseases...
is still work in progress. This has meant that there is currently no consensus or gold standard as to how to treat peri-implantitis, as there is limited scientific evidence available to back up either surgical or non-surgical treatment, or explantation of the dental implant.

Peri-implant diseases

If peri-implant mucositis is allowed to develop, it turns into peri-implantitis, which can lead to progressive loss of the supporting bone, and implant failure – and is therefore much more complex to treat.

Peri-implant diseases are caused by bacterial infection and/or biomechanical overload, which cause the inflammation. Patients with existing periodontal disease and poor oral hygiene habits – and smokers in particular – are very susceptible to developing a peri-implant disease.

Poor oral health and plaque control are a big cause of peri-implant diseases, and often occur due to the patient’s reticence to clean the area due to fear of pain or bleeding. Additionally, the patient may be unable to brush and floss properly due to the implant’s positioning or design increasing bacterial prevalence.

Diagnosis and treatment

It’s important to ensure that the dental team works together to spot the warning signs of peri-implant diseases – as these are often not noticed until they become more severe – and that each member of staff is knowledgeable about the risk factors, signs and symptoms in order to achieve early diagnosis and intervention. It is also a good idea to partner with a periodontist as soon as possible following diagnosis. Evidence suggests that peri-implant mucositis can be treated effectively if detected early, and is easily treated non-surgically. Prevention is possible with regular monitoring of dental implants, comprehensive periodontal evaluation and proper periodontal maintenance.

Peri-implantitis can be treated with mechanical debridement with antiseptics such as chlorhexidine, or surgery – or when all other therapies fail explanation. It is preferable to try a non-surgical treatment first, where possible. In terms of the merit of using antibiotics, Stefan Renvert et al in 2012 found that the use of antibiotics makes no difference. Many bacteria are now also resistant to most antibiotics – we’re in the era of widespread antibiotic and multi-drug resistance.

In cases where just an implant is affected by peri-implantitis, a non-surgical approach can have its merits. For example, scaling and root planing combined with an antiseptic such as chlorhexidine digluconate. This has been clinically proven as an effective adjunctive treatment for peri-implantitis and an effective first-line treatment for periodontal pocketing.

In conclusion, as with all inflammatory diseases, early detection and intervention of peri-implant mucositis and peri-implantitis is the best solution – however in cases that do develop, judge the merits of a non-surgical approach on a case by case basis and choose this option where possible to avoid invasive surgery. More study is needed on peri-implant diseases; we still do not know enough about them and require further research to substantiate emerging claims.

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