

Peri-implant disease: collaboration and consensus

The 2017 World Workshop on the Classification of Periodontal and Peri-Implant Diseases and Conditions established a definition for peri-implantitis as a plaque-associated pathological condition occurring in tissues around dental implants, characterised by inflammation in the peri-implant mucosa and subsequent progressive loss of supporting bone beyond initial biological bone remodelling¹. They also developed an inaugural classification for peri-implant diseases and conditions. This was an important step in diagnosing, researching and better understanding this disease process.

The reported incidence of peri-implantitis is variable due to the heterogeneity in determining thresholds for disease definition. A systematic review reported a weighted mean prevalence of peri-implantitis of 22% (range 1% to 47%)². The prevalence of peri-implant disease will likely increase as more dental implants are placed and existing implants age. The longer the implant is in function, the greater the likelihood of developing peri-implantitis. There is also strong evidence of a higher risk of peri-implantitis in patients with a history of severe periodontitis, poor plaque control and a lack of regular maintenance care after implant treatment¹.

An imperative question to answer is, who should monitor the health of a dental implant after placement – the implant surgeon, the restoring dental practitioner, the hygienist or a periodontist? In many cases using a team approach, the patient is seen by the restoring clinician for routine follow-up visits. Although a periodontal office could provide this care, few oral surgery practices offer this service. In addition, many implant centres deliver full-arch implant surgery and prosthetics but do not have structured maintenance programmes.

This arrangement is precarious as many of these patients losing all their teeth are at high risk of

developing future implant problems. Are the dental practitioners assigned to this important task adequately educated and trained in diagnosing disease and providing proper implant maintenance? Are their patients adequately advised of the necessity of plaque control and strict routine professional maintenance to achieve long-term health?

It is recommended that clinicians obtain baseline probing measurements and radiographs upon completion of the implant prosthesis¹. This allows comparison and monitoring of the implant condition over time. Although the supportive implant maintenance frequency may vary depending on individual needs, the bone levels should be checked radiographically at least every 2 years³. However, too many clinicians fail to regularly probe implants and obtain proper radiographs. This may be from a lack of knowledge and training and/or simply overlooking the importance of this information. This can be devastating as untreated peri-implantitis progresses in an accelerating pattern, with a faster rate of progression than periodontal disease. Early diagnosis and intervention is critical to the prognosis of implant treatment and longevity.

Although there may not be a consensus on the best methods to treat peri-implantitis, there is evidence that non-surgical therapy has limitations in restoring health³. However, it may be performed to prepare healthier peri-implant soft tissue conditions prior to adjunctive surgical therapy. Unfortunately, many dental practitioners delay referral and attempt non-surgical treatments for peri-implantitis such as anti-microbial rinses, intrasulcular antibiotics and/or occlusal equilibration. This can be especially frustrating when an easily correctable problem like excess cement is the contributing factor. The aggressive pattern of peri-implant bone loss necessitates prompt treatment and often surgical intervention.



A high priority should be placed on teaching students and clinicians to diagnose peri-implant health and disease. They should also understand the soft tissue anatomy around natural teeth versus implants and how periodontitis differs from peri-implantitis.

Surgical specialists should educate their referring dental practitioners on proper implant maintenance protocols. It may also be prudent for specialists to either request copies of follow-up periapical radiographs or have the patients return periodically for an evaluation. Patients should also understand the importance of regular supportive maintenance care (e.g. at least once every 6 months) and their vital role in maintaining their implants.

The dental profession must continue to conduct research and high-level clinical studies to determine the most effective strategies for managing peri-implant disease. Global collaboration on this effort is needed to develop evidence-based therapies. World workshops and consensus conferences provide an opportunity to share information and determine areas of agreement as well as identify future needs to manage this problem. The International Journal of Oral Implantology has recently published some notable papers on

peri-implant pathology and welcomes the submission of articles that significantly advance our knowledge on this important topic.



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