Local systemic and environmental factors affecting dimensional changes following implant placement: What is the evidence?

Eli E Machtei
Harvard University, USA

Implant placement marks the start of a chain of events in both the hard and soft tissues adjacent to the fixture. While earlier concepts have associated early bone loss around dental implants with physiological remodeling, more recent data suggests do not seem to support this notion anymore. Instead, early marginal bone loss is considered pathological and should be avoided or minimized. A multitude of factors have been suggested to be related to the prevalence and severity of early marginal bone loss around implants. These include placement protocol (submerged or non-submerged; crestal/supra or sub-crestal); loading protocols, implant’s design and position, residual ridge’s dimensions and the quality, width of the facial/lingual walls and the width and quality of the peri-implant mucosa. Also, occlusal overload, crown-implant ration and implant’s angulation, implants’ diameter, flap versus flapless, mandibular versus maxillary implants and fixed versus removable implant supported restorations. Other systemic and environmental factors (smoking habits, diabetes, radiation therapy and past periodontal disease) were also suggested as possible risk factors. This presentation will focus on current knowledge regarding these variables and will try to highlight the currently available data along with many missing pieces in the puzzle. Finally, the ways to minimize this phenomenon will be discussed.

Biography

Eli E Machtei has obtained his DMD from the Hebrew University in Jerusalem and his certificate in Periodontology from Boston University. He is currently the Chairman of the department of Periodontology at the Rambam SGD and a Professor of Dental Medicine at the faculty of Medicine at the Technion (IIT) in Haifa Israel. He is also a Visiting Senior fellow at Harvard University. He has published over 170 papers in the scientific peer review literature and won several research awards for his work.

eli_machtei@hsdm.harvard.edu