Restoring endodontically treated teeth: An endodontic perspective

Rodrigo Sanches Cunha  
University of Manitoba, Canada

Restoring endodontically treated teeth has been a controversial topic for many years. Nowadays, endodontics is going towards a minimally invasive approach and dentin preservation is the keyword. The objective of this presentation is to review current principles for restoration of the endodontically treated teeth based on the best scientific evidence available to date. Through an endodontic perspective, it is of paramount importance that when the endodontic therapy is concluded the tooth is restored immediately in order to avoid fracture and/or micro-leakage, which can jeopardize the success and longevity of the tooth. Temporary restorations do not effectively prevent contamination for extended periods of time. Endodontically treated teeth can be restored with a wide range of techniques of varying complexity; however retention and resistance to fracture must be taken into consideration. The ferrule effect must be observed and as a guide may prevent the overuse of posts in already weakened roots. Posterior teeth are the most affected by cracks after endodontic treatment and therefore full-cuspal coverage is still mandatory for prevention.

rodrigo.cunha@umanitoba.ca

Relation to peri-implantitis, bacteria and host immune factor

G Rutger Persson  
University of Washington, USA

The objective of the presentation is to provide a comprehensive summary of current perceptions with focus on the infectious etiology and factors that may enhance the risk for infection resulting in implant mucositis, or peri-implantitis. The etiology of peri-implantitis is multifactorial. The oral microbiota is not only diverse, it comprises of a dense population of microorganisms including both aerobic and anaerobic bacterial species ranging from obligate to facultative aerobic or anaerobic species. As soon as a dental implant is exposed in the oral cavity, microorganisms will start to colonize the exposed dental implant surface. Dental implant design and surface chemistry may have an impact on the invasion of oral microorganisms into the fixture-abutment interface. Bacteria usually not associated with periodontitis have, however, also been found in PICF at implants with peri-implantitis forming a cluster of pathogens with Treponema socranskii, Staphylococcus aureus, Staphylococcus anaerobius, Streptococcus intermedius, and Streptococcus mitis comprising 30% of the total microbiota. The occurrence of failing dental implants has been associated with low serum antibody titers and with low avidity levels to S. aureus. Profuse bleeding and/or suppuration in untreated peri-implantitis can be associated with higher concentrations of interleukin-1β, IL-8, tumor necrosis factor (TNF)-α and vascular endothelial growth factor VEGF in peri-implant crevicular fluid. The profile of inflammatory cytokines in implant crevicular fluid represents innate immune responses. Studies on successful treatment of implant mucositis, or peri-implantitis using traditional non-surgical debridement, laser therapy, antiseptics, and antibiotics have shown that have so far not allowed the development of predictable treatment modalities of inflammatory conditions of dental implant surrounding tissues.

rutger.persson@hkr.se