

Editorial Desk

Recommendations and Guidelines to Diminish Clinical Implant Failure; A Clinical Note

In today's time, dental implant surgery has become increasingly popular treatment in dentistry and is considered to be a safe surgical procedure with a higher success rate.^[1,2] However, complications must be taken into consideration because they can severely affect the future clinical outcomes. Nonetheless, implant failure may be considered as the status of the implant performance that when using some quantitative measurements, falls below an acceptable level.^[1,2] The literature showed following major categories of complications associated with implant retained/supported prostheses: surgical complications, implant loss, bone loss, peri-implant soft tissue complications, mechanical complications, and esthetic/phonetic complications. Implant failures associated with overloading comprise those conditions where the functional load applied to the implants exceeds the capacity of the bone to withstand it. Hsu et al explored more than 2,087 publications and concluded occlusal overloading as primary etiologic factor in biomechanical implant treatment complications, which commonly included marginal bone loss, fracture of resin/ceramic veneers and porcelain, retention device or denture base fracture of implant-supported overdentures, loosening or fracture of abutment screws, and even implant failure.^[3,4] Consequently, implant failures related to the implant and abutment interface most likely caused by unfavorable and poor loading conditions or induced by the inadvertent prosthetic procedure. Healing phase or active osseointegration stage is most commonly assaulted by bacterial

infections leading to hassle complications viz; swelling, fistulas, suppuration and early/late mucosal dehiscence. Nevertheless, any signs of infection either early or late cannot be employed alone to determine the final fate of an implant, but should be carefully assessed using other parameters such as radiographic bony changes and mobility. One of the most frequently clinically noticeable sign of implant failure is mobility which can occasionally be present without any radiographic bony alteration. Initially the concept of reverse-torque test was put forwarded to evaluate mobility at the time of primary stability; however modern periotest instruments can better appraise the actual bony conditions around implant. Indubitably, prevention is the best way to manage possible biomechanical complications and because there is only few clinical studies that simultaneously evaluated all or most of the categories of complications.

References

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