Andréa Candido dos Reis, Dent Implants Dentures 2017, 2:2 (Suppl)
DOI: 10.4172/2572-4835-C1-003

Retention and deformation of a new attachment model for mini-implantretaineoverdentures

Andréa Candido dos Reis
University of São Paulo, Brazil

The gradual loss of retention and the need for periodic replacement of attachment system components are the most frequent complications in implant-supported overdentures. Develop a new polymeric attachment model for overdentures and compared your retention and deformation with a conventional O-ring attachment system. A matrix with two mini-implants with ball abutments was used to simulate the mandibular border during a fatigue resistance test. A total of 60 polyacetal (n=20), polytetrafluoroethylene (PTFE) (n=20) and O-ring (n=20) attachments were captured in pairs with acrylic resin and subjected to 3.625 insertion/removal cycles, simulating 30 months of overdenture use. The internal and external deformation of the attachments was assessed using an optical stereomicroscope. One-way analysis of variance and Tukey's test (α=0.05) were used for statistical evaluation. The polyacetal attachment system showed the highest retention (P<.001), followed by the O-ring and PTFE attachments. The O-ring attachments exhibited the lowest deformation (P<.001), and the polyacetal attachments had the highest internal deformation (P<.001). The new polyacetal attachment model that was developed resulted in the high retention of mini-implant-retained overdentures, and despite the deformation experienced, the results suggested a period longer than 30 months before replacement would be required.

Biography

Andréa Candido dos Reis has completed his PhD at the age of 30 years at the University of São Paulo and postdoctoral studies at the Federal University of São Carlos. Currently she is associate professor at the School of Dentistry of Ribeirão Preto, University of Sao Paulo. Develops intensive research projects in the area of development and innovation of dental materials and she has published a total of 71 papers in national and international journals.

andreare73@yahoo.com.br

Notes: