Longitudinal evaluation of different bar designs in immediately loaded mandibular implant supported over dentures

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This study was conducted to evaluate the effect of resiliency of bar and clip attachment on the supporting structures in implant supported over-denture cases. Thirty edentulous patients were treated by two implant supported mandibular over-dentures. The patients were randomly allocated to three treatment groups; rigid, semi resilient and resilient bar designs. The dentures were refitted after implant insertion and the implants were finally loaded within two weeks by one of the three studied bar designs. Follow up was carried on three months basis for the first year. During this period; patient satisfaction, implant mobility, bone level changes around them; gingival index as well as peri-implant crevicular fluids were monitored. Further follow up was carried out for five years on biannual basis and included bone level changes and patient satisfaction. During the whole follow up period; none of the implants failed and there were no significant differences in denture satisfaction scores between patients in the three treatment groups. The bone level changes around the implants in all groups showed significant increases during the first year to reach 0.73±0.03, 0.79±0.015 and 0.95±0.045 for group I, II and III respectively. These levels reached equilibrium after 2 years. The implant mobility, gingival index and peri-implant crevicular fluids showed no statistical differences between the three groups. Under the limitations of the current study, it may be concluded that resilient bar design produces less bone resorption than the other two designs, however the three designs have similar influence on the other studies parameters.

Biography

Gehan Fekry Mohamed Abdellatif is currently a Professor of Prosthodontics Faculty of Dentistry, Minia University. He was acting vice Dean for postgraduate studies and research, Faculty of Dentistry, Minia University, from 2004 till 2009. He was an associate Professor of Prosthodontics Faculty of Dentistry Minia University from 2004 till 2009.

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