

## Comparison of osseointegration around endosseous dental implants coated with recombinant human bone morphogenetic protein-2 (rhBMP-2) vs. uncoated implants

Yasser Mohammed El-Makaky  
Tanta University, Egypt

**Background:** This study aimed to compare osseointegration clinically and radiographically around dental implants coated with rhBMP-2 vs. uncoated implants

**Methods:** A control clinical trial was carried out on twenty dentate subjects with one or two missing teeth were selected with age range from 25 to 45 years, a total of 10 titanium implants coated with rhBMP-2 were placed in healed sites (test group). In the control group, ten titanium uncoated implants were implanted in healed sites. Definitive metal ceramic restorations were fabricated after 6 months of healing in both groups. Clinical parameters (modified Plaque index, Modified sulcus bleeding index and attachment level) were recorded at 3, 6 and 12 months postoperatively. Implant stability was measured by Periotest immediately post-implantation and after 12 months. Radiographic evaluation was done at baseline and 12 months post-surgery.

**Results:** The results demonstrated that, none of the implants failed to integrate and all patients showed favorable clinical and radiographic findings after 1-year follow-up examination. Comparison between the studied groups showed no statistically significant differences in mean values of modified plaque index, modified sulcus bleeding index and implant stability at all periods of follow up while there are statistically significant differences in mean value of attachment level and mean value of the linear distance from the implant shoulder to the first visible alveolar bone contact (DIB).

**Conclusion:** Use of rhBMP-2 as bioactive coat material can improve osseointegration of dental implants in healed sockets

yassermakaky@yahoo.com