

# ***Peri-implant bone level changes in patients with stable periodontal conditions***

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**Objective:** The objective of this longitudinal prospective study was to investigate the peri-implant bone levels of implant-supported fixed prosthesis in patients with stable periodontal conditions.

**Material and methods:** Nineteen partially edentulous patients (mean age:  $54.6 \pm 21.4$  years) with moderate-to-advanced periodontitis having been successfully treated and rehabilitated with an implant-supported fixed prosthesis were included in the study. All the implants had been placed after comprehensive periodontal treatment and when the periodontal conditions were stable. Baseline standardized radiographs using customized bite-blocks were taken on the day of superstructure connection, and follow-up radiographs were taken annually. All radiographs were digitized into computer and imported into a subtraction radiography system for alignment. Vertical bone level changes were measured at mesial and distal aspects of each implant.

**Results:** No implants were lost during the observation period (mean:  $7.3 \pm 6.3$  years). A mean bone loss of 0.6mm was detected around the implants after 7 years of observation. 12 patients (63%) presented with mean annual bone loss after the first year  $<0.2\text{mm}$  and 7 patients (37%) with mean annual bone loss after the first year  $>0.2\text{mm}$ . Only 1 patient (5%) presented with mean bone loss  $>1\text{mm}$  in the first year.

**Conclusions:** Periodontitis patients with stable periodontal conditions can be successfully rehabilitated with dental implants.

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